

UNITED STATES

PK ARM-559

AGENCY FOR INTERNATIONAL DEVELOPMENT

AND

MART/PARC PROGRAM

INSPECTION REPORT (FINAL)

ON

COMMODITIES SUPPLIED TO

FEDERAL & PROVINCIAL RESEARCH INSTITUTES,

AGRICULTURAL UNIVERSITIES AND

ARID ZONE RESEARCH INSTITUTE, QUETTA

January, 1989

Hydro-Consult

CONSULTING ENGINEERS

Hydro-Consult, Inc. 10000 15th Street, N.W. Washington, D.C. 20004

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SECTION "A"
SUMMARY

S U M M A R Y

The commodities supplied to various Federal and Provincial Research Institutions and Agricultural Universities under USAID/MART program, were inspected in respect of their store conditions, installation, repair/maintenance, utilization etc.

Following is the Summary of findings:

1. Generally, the respective institutions, or PARC has not lodged insurance claim to recover the repair cost of the equipment damaged during shipment. In this regard Mr. Liaquat Hussain, Senior Procurement Officer, (PARC) informed during his visit to the office of Techno-Consult, Karachi on June 08, 1989 that no equipment during shipment upto Karachi was found damaged. All the equipment was issued from US AID office, Karachi to various institutes in presence of a representative from insurance company and only generator was reported to have been damaged during unloading at the institute where it was sent. Mr. Liaquat also informed that no other report of damaging the equipment has so far been received by the PARC from any institute and as such the PARC is not aware if any equipment has been damaged during the shipment.

2. The respective suppliers were contacted by the PARC in respect of the missing/short-supplied items and as informed by Mr. Liaquat on June 8, 1989 that suppliers has agreed to send missing parts to all provinces. The calculators supplied to various stations will also be replaced with scientific functions as mentioned in the contract.

3. Institutions do not have the contact details (contact person's name and designation, address of the firm, telex and telephone numbers etc.) of the original suppliers and their local agents.

In many cases, institutions were unable to contact the suppliers and their local agents regarding missing items, technical information and warranty claims. The matter was discussed with Mr. Liaquat SPO, PARC, who informed that the details of suppliers are given at the tag of each equipment. However PARC would send the details of suppliers to all the institutes.

4. Most of the modern field implements and delicate laboratory equipment are new for the scientists and research staff and so they can not fully utilize the supplied equipment. The PARC has conducted two training programmes in Faisalabad and Islamabad for the research staff. Another training programme on agriculture machinery will be conducted by the PARC soon.
5. There is lack of proper communication between the provincial institutions and PARC/MART Secretariat. Provinces/Institutions reported that they do not receive timely response of their queries.
6. Generally, institutions do not keep a record of repair/maintenance of laboratory equipment.
7. The classroom trainings provided by PARC on some of the equipment could not develop the required skills/expertise needed for effective utilization of respective equipment.

RECOMMENDATIONS:

1. Details of the missing/short supplied items are given in this report. Insurance claim should be lodged immediately in this respect. However, it is doubtful if the warranty/insurance claims will be entertained by the suppliers/insurance agents now. The matter was discussed in detail with Mr. Liaquat Hussain, Senior Procurement Officer, PARC on June 08, 1989 and June 19, 1989. Mr. Liaquat informed that all the suppliers have agreed to send the missing parts directly to the institutes.
2. PARC/NARC should immediately initiate a plan to:
 - a) Provide assistance in commissioning of sophisticated lab. equipment.
 - b) Provide on-hand training on operation/maintenance of the delicate laboratory equipment.
3. PARC/FMI should also provide on hand training and assistance in commissioning of field implements.
4. Institutions should be immediately provided with the complete details and addresses of suppliers and their respective local agents.
5. A Central Repair Cell should be established in each province. This will help the provinces in rectifying their repair/maintenance problems locally and timely.

6. Some extra equipment is supplied to the N.W.F.P. Province, which is lying at CCRT, Pirsabak. The extra equipment belong to some other Institutes/Provinces but actual belonging of the equipment can not be determined since no P.G.I. number/any other code is printed on the casing or on the equipment tags.

Details of equipment already sanctioned but not yet supplied to various Institutes/Provinces are given in this report. PARC/ MART authorities should redeliver the extra equipment lying at Pirsabak to other Instts./Provinces.

- 7 A list of all equipment received and issued to the province has been obtained from Mr. Liaquat Husain, Senior Procurement Officer (PARC) on June 08, 1989 and appended as Appendix 3A, 3B, 3C and 3D for Punjab, Sind, NWFP and Baluchistan, respectively. A list of some of the short supplied items which has now been received by the NARC has been obtained and appended as Appendix-4. These items (68 Nos) are presently lying at the central store of NARC and being issued to various stations. After comparing the two lists, it has been noted that not all the short supplies has so far been met by the suppliers. The items which were ordered but not supplied so far are shown in Appendix-5.

8. It was informed by the Senior Procurement Officer, (PARC) on June 08, 1989 that the distribution of equipment was carried out by a committee consisting of four members i.e., representatives from suppliers, USAID, and insurance company and the store officer of PARC. Some confusion in distribution occurred since code numbers were not marked on various equipments in tender documents

and store officer might have used his own discretion in distribution. Since now more than 90% of the equipment (as informed by Mr. Liaquat, SPO, PARC on June 19, 1989) has been opened and installed, it is necessary that complete check of equipment should be carried out to ensure that each station has received the correct equipment in terms of specification and quantity.

SUMMARY OF SUPPLIES AND UTILIZATION

PROVINCE/ INSTITUTION	NO. OF EQPT. SANCTIONED (1)	NO. OF EQPT. DELIVERED (2)	NO. OF EQPT. BEING UTILIZED (3)	% OF THE EQPT. SUPPLIED IN USE (4)	R E M A R K S (5)
N.W.F.P. =====	94	16	6	37.50%	
AG. Res. Instt. Tarnab.	33	8	2	25.0%	
AG. University, Pesw.	39	4	1	25.0%	
C.C.R.I., Pirsabak.	22	4	1	75.0%	
PUNJAB =====	440	330	208	63.0%	
A.A.R.I., Faisalabad.	176	125	51	40.80%	
AG. Univer., Faisalabad.	243	170	153	76.50%	
R.P.I., Kalashah Kaku.	1	5	4	80.00%	
S I N D =====	408	413	277	67.00%	
A.R.I., Tando Jam.	137	119	57	47.90%	
AG. Univer., Tando Jam.	219	255	203	79.60%	
R.P.I., Dokri.	52	39	17	43.60%	
BALUCHISTAN =====	409	402	349	86.80%	
A.P.I., Sinyab.	111	106	63	59.40%	
A.Z.P.I., Quetta.	298	296	286	96.35%	
T O T A L	1349	1161	840	72.35%	

P R E F A C E

Commodities worth U.S \$ 4.70 million were supplied to various Federal and Provincial Research Institutions, Agricultural Universities and Arid Zone Research Institute, Quetta under USAID/MART program. The objective was to strengthen the research capabilities of these institutions.

The services of Techno-Consult were procured to inspect the following:

1. The condition of laboratories where sophisticated equipment is installed.
2. Whether the equipment installed by suppliers is according to the contractual requirements ?
3. Whether the envisaged training was imparted to the end users ?
4. Whether upon unpacking there were any missing and/or damaged parts ? If so, were insurance claims lodged ?
5. Whether equipment is being utilized effectively. ? If not;
 - a) Are there plans for use;
 - b) Reasons for no use and
 - c) Can the un utilized equipment be shifted and used by any other section within the same institute/province ?
6. Whether an inventory and record for repair and maintenance of the equipment received has been maintained by the recipient institute.
7. Whether any repair and maintenance facilities for field equipment is available at the Institute.

A two member team consisting of a lab. equipments' Specialist from NARC and Mr. Masood Mehmood Khan of Techno-Consult inspected the following Provinces/Institutes, which were supplied with the equipment.

	<u>PROVINCE/INSTITUTE</u>	<u>DATES VISITED</u>
A.	<u>N.W.F.P</u>	
	1. A.R.I., Tarnab	Dec. 19, 1988.
	2. Ag. University, Peshawar	Dec. 21, 1988.
	3. C.C.R.I., Pirsabak	Dec. 20, 1988.
B.	<u>PUNJAB</u>	
	1. A.A.R.I., Faisalabad	Nov. 26-28, 1988.
	2. Ag. University, Faisalabad	Nov. 29-Dec. 01, 1988.
	3. R.R.I., Kala Shah Kaku	Dec. 17, 1988.
C.	<u>S I N D</u>	
	1. A.R.I., Tando Jam	Dec. 4-6, 1988.
	2. Ag. University, Tando Jam	Dec. 7-8, 1988.
	3. R.R.I., Dokri	Dec. 10, 1988.
D.	<u>BALUCHISTAN</u>	
	1. A.R.I., Stryab	Dec. 13-14, 1988.
	2. A.Z.R.I, Quetta	Dec. 15, 1988.

The specific details regarding the objectives of inspection is attached for each equipment.

A summary of Findings and Recommendations is also attached.

SECTION "B"
N.W.F.P.

N.W.F.P.

SUMMARY OF SUPPLIES AND UTILIZATION

INSTITUTION	NO. OF EQUPT. SANCTIONED	NO. OF EQUPT. DELIVERED	NO. OF EQUPT. BEING UTILIZED	NO. OF EQUPT. NOT BEING UTILIZED	R E M A R K S
	(1)	(2)	(3)	(4)	(5)
AG. RESEARCH INSTT. TARNAB	* 33 ** 31	* 8 ** 28	2	6	
AG. UNIVERSITY PESHAWAR	* 39 ** 35	* 4 ** 33	1	3	
CCRI, PIRSABAK	* 22 ** 20	* 4 ** 20	3	1	
TOTAL	* 94 ** 86	* 16 ** 81	6	10	

* Total 94 Nos. equipments were sanctioned for N.W.F.P. Province to be supplied under USAID/MART program but 133 Nos. were supplied. 39 Nos. equipment were supplied in excess. Out of the 133 equipment supplied only 16 have been delivered to the institutes and the rest 117 equipments are stored at Pirsabak.

* (1) SOURCE:- USAID LIST, per Mr. Masood Mahmood's draft report.

** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurment Officer (PARC).

* (2) SOURCE:- Physical inspection and Institute's record

** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurment Officer (PARC).

(3) SOURCE:- Physical inspection

(4) SOURCE:- Physical inspection

SUMMARY OF MONITORING

1. THE SUPPLY

Against a total number of 94 items of equipment sanctioned under MART/ USAID program for the Director Agriculture Research, N.W.F.P., (for distribution among various institutes), 133 number of pieces of equipments were supplied.

2. DISTRIBUTION:

Only 16 items of equipment were delivered to different institutes for utilization in the province. Rest of the equipment numbering 117 pieces is lying packed at the central stores Pirsabak. However, Mr. Liaquat Hussain, SPO (PARC) informed on June 8, 1989 that only 81 number of equipments were supplied to NMF which has all been distributed among 3 institutes of the Provinces. Detail of which is enclosed in as Appendix 3 (c).

3. CENTRAL STORES PIRSABAK:

The central stores Pirsabak is located on the ground floor of a very old dilapidated building situated along side the river Kabul. In view of the location of building, the atmosphere there is humid and not suitable for storage of sophisticated, delicate and highly sensitive equipment. In addition to humidity, the stores are exposed to dusty environment. There is also no protection against rodents and rats which were observed to be present in the ware house.

4. INSURANCE AND WARRANTY:

Most of the stores are lying packed and it is apprehended that the warranty as well as insurance might have elapsed. It is doubtful if

the institutes could lodge any claim for the missing and/or defective parts in the event of missing/malfunctioning of equipment.

5. UTILIZATION:

Items of equipment supplied to various institutes were checked physically and a detailed report in respect of each is attached. Only 6 numbers against the 16 number of pieces of items (delivered to various institutes) are being utilized.

6. RE-ALLOCATION PLANS:

The Director Agricultural Research, N.W.F.P., intends to re-allocate the equipments to various Institutes/Departments in the Province. He mentioned that the previous distribution list is being reviewed by the department and a new allocation proposal will be submitted for approval to the PARC & the USAID in near future.

7. C.C.R.I., PIRSABAK:

The institute has no laboratory to install/operate such sophisticated equipment. The inspection team was informed that some of the offices will be converted into laboratories in the near future.

SUGGESTIONS:

1. The Director Agricultural Research, N.W.F.P. was requested to immediately shift/distribute these pieces of equipments to the location/departments for which these are meant.
2. PARC should request the supplier to get the warranty period extended and made effective from the date these items of equipment are commissioned.

CENTRAL STORES, PIRSABAK

The items of equipment detailed below were supplied to the Director Agriculture Research, NWFP, for distribution among ARI, Tarnab, Agriculture University, Peshawar and CCRI, Pirsabak but these have not been distributed yet. At present all these items are lying at PIRSABAK central stores. Each of the items was checked physically and it was observed that the storage conditions were highly unsatisfactory. Rats have damaged a number of packings. It is apprehended that if these pieces of equipment are kept in stores for long, rats may damage the equipment as well. The store is located by the side of the river. The atmosphere is highly humid and not suitable for storage such equipment.

Code No. P.G.L. No.	Description and Findings	Qty
1.I.1	Combine Plot	2
1.I.2	Orchard Sprayer	1
1.I.5	Thrasher Small Bundle Type	4
1.I.6	Seed Treater Batch Type	3
1.I.7	Cleaner and Grader (Seed & Grain)	4
1.I.8	Sunflower Planting Machine	1
1.I.9	Seed Dryer	1
1.I.10	Thrasher Small Bundle Type	1
1.I.11	2-3 Row Soybean Planter	2
1.I.12	Moisture Tester	2
1.I.13	Plot Grain Drill	6
1.I.15	Plot Cutter	2
1.I.16	Seed Counter	2
1.I.17	Sheller Portable Husker-Sheller	5

Code No. P.G.L. No.	Description and Findings	Qty
1.II.1	Oven Drying, Forced Convection	1
1.II.2	Still, Water, Mega-Pure NPI	4
1.II.3	Lamp, Ultra Violet, Black-Ray	1
1.II.4	Magnifier	1
1.II.5	Balance Electronic Top Loading	7
1.II.7	Incubator, Gravity Convection	1
1.II.8	Autoclave (Sterilizer)	3
1.II.9	Shaker, Water Bath	1
1.II.10	pH Meter	4
1.II.11	Kjeldahl, Micro Apparatus	1
1.II.13	Counter, Colony Cubec Dark Field	3
1.II.14	Centrifuge, General Purpose	5
1.II.15	Spectrophotometer.	5
1.II.16	Microscops, Research, Bright Field	2
1.II.17	Dissecting Microscope	2
1.II.18	Chamber, Growth	2
1.II.19	Sterilizer (Soil)	2
1.II.20	Water Bath Medium	2
1.II.21	Hood Laminar Flow	2
1.II.22	Incubator Cooled B.O.D.	1
1.II.23	Freezer, Chest Type	3
1.II.24	Warring Blender	2
1.II.25	Refrigerator, Upright-W/Freezer	3
1.II.26	Calorimeter	2
1.II.27	Flame Photometer	2
1.II.28	Muffle Furnace	2

Code No. P.G.L. No.	Description and Findings	Qty
1.II.29	Pump, High Vacuum	1
1.II.30	Radio Active Monitor	2
1.II.31	Kelmay Soil Acidity & Moisture Tester	2
1.III.1	Projector O/Head Apolo 6	7
1.III.2	Projector O/Head Opaque	2
1.III.3	Kodak Disc 6100 Camera	2

SUGGESTION:

The Director Agri. Research NWFP was requested to immediately distribute or shift the equipments from Pirsabak stores.

AGRICULTURAL UNIVERSITY, PESHAWAR

Following is the list of items delivered to Agriculture University, Peshawar with comments on utilization and keeping.

P.G.I. No.	Description and Findings	Qty.
1.I.13	<u>PLOT GRAIN DRILL</u>	2
	<u>AGRONOMY DEPARTMENT</u>	1
	Properly stored. Not commissioned.	
	<u>FARM MACHINERY DEPARTMENT</u>	1
	Stored properly. Department had difficulties in utilization, since literature on operation was not supplied.	
	<u>MISSING:</u> Assembling/operation literature not supplied with the equipment.	
	<u>TRAINING:</u> Department personnel require training on operation/adjustments of the machine.	
1.I.17	<u>PORTABLE SHELLER-HUSKER</u>	2
	<u>AGRONOMY DEPARTMENT</u>	1
	Properly stored. Not commissioned. Department has future plans for utilization.	
	<u>FARM MACHINERY DEPARTMENT</u>	1
	Properly maintained and being utilized.	

AGRICULTURAL RESEARCH INSTITUTE, TARNAB

Following is the list of items delivered to ARI, Tarnab with comments on keeping and utilized.

P.G.I. No.	Description and Findings	Qty.
1.I.20	<u>PLOT ROW PLANTER</u> One of the planters was not commissioned and not being utilized. The other one is properly installed and is being utilized.	2
1.II.8	<u>AUTOCLAVE (STERILIZER)</u> Stored properly but not being utilized. <u>COMPLAINT:</u> Department complained that the sterilizer supplied is of very small size which can only hold one sample at a time whereas, many samples are treated simultaneously in the Bio-chemistry lab. For the reason, this small size autoclave is of no use the department. <u>SUGGESTION:</u> Although, its a small capacity equipment, but can be utilized effectively for experimental purposes. Department was advised to look into possibilities of utilization.	1
1.II.9	<u>SHAKER, WATER BOTH</u> Stored properly. Supply is O.K. as per the contract documents. Not being utilized at present. Department has future plans for utilization.	1

P.G.I. No.	Description and Findings	Qty.
1.II.11	<u>KJELDHEL MICRO APPARATUS</u>	1

Stored properly.

SHORT SUPPLY: As per the contract documents, a complete micro-apparatus (Consisting of digestion and distillation units) was to be supplied. Instead, only the digestion unit was supplied. However, Mr. Liaquat Hussain SPO (PARC) informed on June 8, 1989 that "PEM SCIENCE CORP.", the supplier of this equipment has been contacted who has agreed to send the missing parts.

UTILIZATION: The equipment (only the digestion unit) was utilized effectively for some time. However, in the first week of December, some fault developed in the heater number 04 and so the equipment is not being utilized at the moment.

REMARKS: (1) The distillation unit is short-supplied.
 (2) Heater can be repaired by rectifying the electro-thermal circuit. PARC/NARC can provide assistance in repairing the faulty heater.

1.II.12	<u>GAS ANALYZER CO2</u>	1
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Stored properly. Not yet utilized.

OBSERVATION: Its a typical Fyrite CO2 gas analyzer supplied without accessories.

P.G.I. No.	Description and Findings	Qty.
1.II.13	<p><u>UTILIZATION:</u> The inspection team tried to demonstrate the operation of analyzer but found that the solution level was too low. The equipment could not be calibrated since extra solution was not supplied with the test kit.</p> <p><u>REMARKS:</u> Department will have to procure CO2 gas analyzer solution locally. Until and unless the required amount of solution is not filled, analyzer can not perform the analysis.</p>	1
1.IV.5-B	<p><u>COLONY COUNTER</u></p> <p>Stored properly. Not yet commissioned.</p> <p><u>ACTION:</u> Commissioned by the inspection team.</p> <p><u>TRAINING:</u> No literature on operation of the equipment supplied. Food Tech. Department requires literature on the equipment for effective utilization.</p> <p><u>GENERATOR (200 kW)</u></p> <p>Stored in open space over a trolley, in very poor ambient conditions.</p> <p><u>DAMAGES:</u> (1) The generator foundation beams damaged during shipment from PIRSABAK to TARNAB.</p> <p>(2) The generator casing, cover damaged during shipment fro PIRSABAK to TARNAB.</p>	1

P.G.I. No.	Description and Findings	Qty.
	(3) The generator was transported from PIRSABAK to TARNAB by Pakistan Army personnel. It slipped during shipment and was hadly damaged. There might be some internal damages in the generator which could only be detected during commissioning.	

INSTALLATION: (1) Installation site not fully prepared yet.

(2) ARI is corresponding with WAPDA and some local contractors for installation/commissioning.

(3) Should be installed by local Agent of the supplier. If there is no local agent then ARI should hire some reputed electrical contractor to install the equipment.

This is a very costly item and its installation require high degree of skill and expertise. Institute should arrange special funds for installation/commissioning of the valuable generator.

NOTE: No warranty documents supplied to institution.

COMPLAINT/COMMENTS SHEETS
AGRICULTURAL RESEARCH INSTT. TARNAB

COMPLAINT/COMMENTS SHEET NO. 01N

Instr. A.R.I. Tainab Location _____ Date Insp. 19/12/88

P.G.I.No. I. II. 08 Description: Autoclave (Sterilizer) Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The Autoclave Sterilizer is very small size and can't hold the samples. The dept. finds it of no utilization so not commissioned yet. The dept. wants replacement with a large capacity Sterilizer.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: <u>[Signature]</u>
Counterpart's Signature: <u>[Signature]</u>
Instr. Rep.'s Signature: <u>[Signature]</u>

COMPLAINT/COMMENTS SHEET NO. 02-N

Institution: A.R.I. Tarnab Location: Bio Chemistry Date Insp: 19/12/85

P.G.L.No. 1. II. 11 Description: Kjeldahl Micro Apparatus Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: As per the contract document, complete micro apparatus (including digestion & distillation units) was to be supplied. Instead, only the digestion unit has been supplied. Distillation required. (2) The digestion unit was being utilized effectively but few days earlier, Heater No 4 got defective and is not working now.

Observation: _____

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: Juni

Institution Rep.'s Signature: R.S. - 11

COMPLAINT/COMMENTS SHEET NO. 03-N

Instt. A.R.-I. Tarnab Location Food Tech. Date Insp. 17/12/88

P.G.L.No. I. II. 12 Description: Gas Analyzer Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: A Pyrite kit Co₂ analyzer with ordinary probe is supplied. This particular probe is used only for analyzing the combustion gases and is not ok for Food Tech. Lab. Hence the equipment is lying

Action Taken: idle in the lab.

Observation: Mr. Amin Saleem & ~~the~~ Nasir D. Khan demonstrated the use of analyzer to the lab. staff, but the probe supplied with Pyrite kit for analyzer is not adequate for Food Tech. Lab.

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: Amin

Instt. Rep.'s Signature: Dr. C. ...

COMPLAINT/COMMENTS SHEET NO. 04-N

Instt. A.R.I. Tarnab. Location _____ Date Insp. 19/12/88

P.G.L.No. 1-IV-5-B Description: Generator Diesel Qty: 01

Supplier: Horizon Trading Co., USA Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A

Nature of Complaint: (1) Not installed yet. No local supplier of generator could be traced. (2) Damaged during shipment from Pissabath to Tarnab.

Action Taken: Correspondence with WAPDA, Province & PARE has been in progress.

Observation: Foundation beams damaged during shipment from Pissabath to Tarnab. (2) Casing manifold damaged during shipment. (3) Stored on a trolley in open space.

Remarks: Should be installed properly & immediately. The storage condition is poor. If there is any suspicion, should be ~~not~~ installed by some highly reputed contractor.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: [Signature]

NO.F.1-58/88(Lab.Equip)NARC
PAKISTAN AGRICULTURAL RESEARCH COUNCIL
NATIONAL AGRICULTURAL RESEARCH CENTRE

....

Islamabad the 26th January 1988

Subject:- REPAIR & INSTALLATION OF LABORATORY EQUIPMENT.

Reference your letter No.F.4-32/86/Baluchistan-D(Coord dated 27th Dec 1987, regarding repair of equipments at ARI SARIAB, I am pleased to inform you that the said assignment has been accomplished by the Engineers of Lab. Equipment, Maintenance & Repair Unit NARC.

In recognition to these services, Director, ARI, SARIAB Quetta has sent a letter showing his gratitude. Photocopy of the same is enclosed herewith for your kind information.

(Signature)
(ZAFAR HANZEL HASHMI)
puty Director (Labs. Equip)
NARC, Islamabad.

✓ Mr. Zafar Uddin, Director (Coordination),
P.A.R.C., Islamabad.

(P.A.R.C.) 11-88/50-21/1/1
88-11-27-42

P. A. R. C.
27/1/88
27-4148

~~SO (M)~~
~~OA (M)~~
27-1

File *RS*
27/1

(Registered)

No. 10991 /Tech/DGA, Dated Tarnab the. 10/7 /1988
To DIRECTOR GENERAL AGRICULTURAL RESEARCH INSTITUTE, TARNAB CODE PACKAGE 1

The Project Secretary (MART),
Pakistan Agricultural Research
Council (Project Implementation
Unit) ISLAMABAD.

Subject:- INSTALLATION OF DIESEL GENERATOR 1163.51
(200 KVA) 1 5400.00

Memo:- One diesel generator has been received under MART

project by this Institute, but is lying un-installed. I shall feel obliged if you could kindly help us in the installation of the same as it is quite technical job and need expert. I may further add that this Institute had been allotted a good deal of laboratory equipment and field Machinery, but so far negligible items of equipment have been received and that too is incomplete. Sometime back, the Chairman Pak. Agril. Res. Council, Islamabad was on visit to this Institute and he pointed out that all other Institutes in the country have received their equipment and machinery, but why you have not been supplied your share.

It is therefore, requested to kindly personally look into the matter and expedite the supply of equipment/machinery already allotted to this Institute at an early date.

(Encl: List of equipments supplied and showing the deficiencies)

Director General,
Agricultural Research Institute
Tarnab (Peshawar).

No. /DGA, 1 2623.00
1 2539.30

Copy to the Asstt. Agronomist (Farms) ARI Tarnab with the direction please pursue the case on personal level.

3d
Director General
Agricultural Research Institute
Tarnab (Peshawar).

BEST AVAILABLE COPY

DGM/Ad/ces
17.10.88

So (MARS)
17/10/88
SACM

25.30
2502.30

CEREAL CROP RESEARCH INSTITUTE, PIRSABAK

Following is the list of equipments delivered to CCRT, Pirsabak with comments on keeping and utilization.

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
1.I.1	<u>COMBINE (SMALL PLOT)</u> Stored in poor condition. Being utilized.	2
1.I.17	<u>HUSKER PORTABLE</u> Properly installed and being utilized.	1
1.II.21	<u>BIO-SAFE HOOD LAMINAR</u> Stored in poor condition.	1

DAMAGES: The frame glass broken during shipment. No insurance claim lodged.

MISSING: Instruction/operation manual found missing when received.

UTILIZATION: Natural gas not available to operate the equipment.

COMPLAINT/COMMENTS SHEETS

C.C.R.I., PIRSABAK

COMPLAINT/COMMENTS SHEET NO. 71-NP

Instit. C.C.R.I. PIRSABAK Location STORES Date Insp. 12/20/88

P.G.L.No. 1. II. 21 Description: Bio-Safe Laminar Hood Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: ① Hood glass broken during shipment. The glass cover holding locks also broken during shipment.
② Operation Manual missing.

Action Taken: PARC was informed about the breakage just after the receipt of the equipment at Pirsabak.

Observation: ① The Laminar hood can not perform its specific function until the ~~the~~ new glass is fixed and the glass cover holding locks are repaired or replaced. ② The same eqpt. has been supplied to other provinces without op. Manual.
Remarks: Insurance claim should be lodged.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Instit. Rep.'s Signature: [Signature]

S.S.C. (Contract)
C.C.R.I. Pirsabak

SECTION "C"
PUNJAB

P U N J A B

SUMMARY OF SUPPLIES AND UTILIZATION

INSTITUTION	NO. OF EQUPT. SANCTIONED	NO. OF EQUPT. DELIVERED	NO. OF EQUPT. BEING UTILIZED	NO. OF EQUPT. NOT BEING UTILIZED	REMARKS
	(1)	(2)	(3)	(4)	(5)
A.A.R.I., FAISALABAD	* 196 ** 137	* 125 ** 131	51	74	6 Equpt. were not phy'lly inspected
AG. UNIVERSITY, FAISALABAD	* 243 ** 297	* 200 ** 233	153	47	33 Equpt. were not phy'lly inspected
P.F.I., KALA SHAH KARDI	* 1 ** 1	* 5 ** 1	4	1	---
TOTAL	* 440 ** 437	* 330 ** 365	208	122	35 Equpt. were not phy'lly inspected

- * (1) SOURCE:- USAID LIST as per Mr. Masood Mahmood's draft report.
 ** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurement Officer (PARC).
 * (2) SOURCE:- Physical inspection and Institute's record
 ** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurement Officer (PARC).
 (3) SOURCE:- Physical inspection
 (4) SOURCE:- Physical inspection

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PUNJAB

SUMMARY OF MONITORING

LAB EQUIPMENTS:

1. Most of the lab equipments supplied under MART/USAID program are stored, installed and being utilized satisfactorily.
2. In some cases, essential accessories of the standard equipment were not included in the contract and so the equipment could not be utilized effectively.

FIELD IMPLEMENTS:

3. Most of the field implements have either not been commissioned or have not been fully utilized.
4. The basic reason of non-utilization of the field implements seems to be the non-availability of skills and expertise.

MISSINGS:

5. Most of the field implements and some of the lab equipments were supplied without the instruction/operation manual and so could not be utilized.

DAMAGES & INSURANCE CLAIM:

6. Some of the pieces of equipments were damaged during shipment but no insurance claim was lodged to recover the repair costs.

RECOMMENDATIONS:

1. PARC/FMI can provide assistance in installation/commissioning of the field implements. FMI can also impart training to local staff

on the operation/maintenance of the field implements. Instead of class room training, an on-hand training in the field is recommended.

A PARC/FMI team (comprising of engineers/technicians) should be formed in this respect to visit various institutes.

2. List of the damaged/missing items can be prepared from this report. PARC can compile such a list and can lodge insurance claim immediately.

AYUB AGRICULTURAL RESEARCH INSTITUTE, FAISALABAD

Below is the list of equipments which are properly stored and are being effectively utilized at various departments of AARI.

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
2.I.2	<u>BALANCE ELECTRONIC</u>	1
2.I.14	<u>STERIOSCOPIC ZOOM MICROSCOPIC</u>	2
2.I.18	<u>AUTOCLAVE STERILIZER</u>	1
2.I.21	<u>PRECISION BENCH TYPE INCUBATOR</u>	1
2.I.23	<u>OVEN DRYING FORCED CONVECTION</u>	2
2.I.29	<u>BALANCE ELECTRONIC TOP LOADING</u>	2
2.II.1	<u>SOIL ACIDITY AND MOISTURE TESTER</u>	2
2.II.7	<u>BIO-SAFE HOOD LAMINAR FLOW</u>	2
2.II.8	<u>GROWTH CHAMBER</u>	1
2.II.12	<u>LEAF AREA METER</u>	1
2.III.9	<u>pH METER</u>	2
2.VI.1	<u>ATOMIC ABSORPTION SPECTROPHOTOMETER</u>	1
2.VII.4	<u>SHAKER ORBITAL - 3591</u>	1
2.VII.9	<u>SHADOGRAPH BALANCE</u>	1
2.VII.10	<u>BRIGHT FIELD MICROSCOPE</u>	1
2.VII.14	<u>MIXER DOUGH PIN TYPE</u>	1
2.VIII.8	<u>SINGLE ROW PUSH CONE SEEDER</u>	23
2.VIII.10	<u>SEED COUNTER TOTALIZER</u> (Reported to be utilized at Research Station, Sargodha. It was not inspected physically).	1
2.IX.6	<u>BARLEY PEARLER</u>	1
2.IX.7	<u>FERMENTATION CHAMBER</u>	1
2.IX.11	<u>PROTEIN ANALYZER</u>	1

AYUB AGRICULTURAL RESEARCH INSTITUTE

Following is the list of equipments which are not being utilized for the reasons mentioned with each item separately.

P.G.I. No.	Description and Findings	Qty.
2.I.7	<u>KJELDEHL MICRO APPARATUS</u>	2

Stored properly. Not being utilized.

SHORT-SUPPLY: As per the contract document, complete micro-apparatus (consisting of both the digestion unit and the distillation unit) was to be supplied. Instead, only the digestion unit was supplied to the institute. However, Mr. Liaquat Hussain, SPO (PARC) informed that the supplier has been contacted in this regard who has agreed to send the missing parts.

REMARKS: Distillation unit short supplied.

2.I.9	<u>MILL, EXPERIMENTAL</u>	1
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Stored properly. Not installed.

UTILIZATION: Department has future plans for utilization.

2.I.10	<u>FIBER GLASS FUME HOOD GENERATORS</u>	1
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Stored properly. Not commissioned.

UTILIZATION: Department has future plans for utilization.

2.I.20	<u>FLAME PHOTOMETER</u>	1
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Stored properly.

P.G.I. No.	Description and Findings	Qty.
	<u>COMMISSIONING:</u>	
	Equipment has not been commissioned since propane-gas cylinders are not available.	
	<u>UTILIZATION:</u> Department reported that the parts per million concentration range of the equipment is much higher than that required for lab. tests which are performed at the institute. Department was of the view that this particular flame photometer is of no utility for the institute.	
2.II.5	<u>HUMIDIFIER, STANDARD SIZE</u>	1
	Properly stored. Not commissioned.	
	<u>UTILIZATION:</u> Department has future plans for utilization.	
2.III.3	<u>TJ - 6R REFRIGERATED CENTRIFUGE COMPLETE WITH ACCESSORIES</u>	1
	Stored properly but not commissioned yet. Department has future plans for utilization of the equipment.	
2.VII.2	<u>INCUBATOR, BENCH TYPE</u>	1
	Stored properly. Not commissioned.	
	<u>UTILIZATION:</u> Department has future plans of utilization.	
2.VII.3	<u>FIBER STRENGTH TESTER</u>	1
	Stored packed. Not utilized.	

P.G.I. No	Description and Findings	Qty.
	<p><u>COMPLAINT:</u> Department complained that only the standard tester was supplied, whereas, the weighing scale which is an essential accessory of the equipment was not supplied.</p> <p><u>OBSERVATION:</u> As per the contract document, only standard tester was ordered and the weighing scale was not included in the contract document. Strength tester can however be utilized for testing the fiber strength.</p>	
2.VII.6	<p><u>ENVIRONMENTAL CHAMBER</u></p> <p><u>DISTRIBUTION:</u> One is supplied to each Entomology department and Horticulture department.</p> <p><u>ENTOMOLOGY DEPARTMENT:</u> It is stored properly but not commissioned yet. The fluorescent tube lights (4 Nos), the incandescent light bulbs (3 Nos) and the chamber trays found missing when received. Equipment could not be commissioned therefore.</p> <p><u>HORLICULTURE DEPARTMENT:</u> Stored properly but not commissioned yet. The fluorescent tube lights (4 Nos) and the incandescent light bulbs (3 Nos) were received short.</p> <p><u>NOTE:</u> (1) It could not be ascertained from the contract documents the whether the above mentioned lights were included in order or not ?</p>	2

P.G.I. No.	Description and Findings	Qty.
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The chamber trays were supplied with one of the environmental chambers so 't could be assumed that these were included in the order and supplier should be asked to provide another set of trays for other chamber.

(2) Specifications of the missing tube lights and bulbs were not available so local procurement, was not possible. Technical literature on the equipment was not supplied with the equipment.

SUGGESTION: The institute can directly ask the supplier to provide technical specifications.

2.VII.12

FREEZE DEYER

Stored properly. Not commissioned.

COMMISSIONING & UTILIZATION: Equipment could not commissioned since a vacuum pump is required to make it operate. The vacuum pump is not available at the institute. Department could not procure a vacuum pump due to budgetary restrictions.

2.VIII.4

VOGAL PLANTER

10

Distributed among various stations. Two were inspected physically and found poorly maintained.

P.G.I. No.	Description and Findings	Qty.
	<p><u>UTILIZATION:</u> The two planters at AARI are not being utilized. Department reported that these are manual type planter and are too heavy for manual operation.</p> <p><u>OBSERVATION:</u> Department does not have trained personnel on this particular type of planters. Practical training should be provided so that the equipment could be utilized.</p>	
2.VIII.7-A	<p><u>SEED FERTILIZER: CYCLONE STAINLESS STEEL</u></p> <p><u>DISTRIBUTION:</u> Distributed among various research stations at Pindi Bhattian, Sargodha, Bahawalpur, Lahore, Kala Shah Kaku, Chakwal, Sahiwal, Yousufwala, and Faisalabad. Only three were stored at AARI and were physically inspected.</p>	34
	<p><u>OIL SEED DEPARTMENT</u></p> <p>Stored properly and being utilized.</p>	1
	<p><u>VEGETABLE DEPARTMENT</u></p> <p>Stored properly and not being utilized.</p>	1
	<p><u>WHEAT DEPARTMENT</u></p> <p>Stored properly and not being utilized. Department intends to utilize the equipment in next wheat sowing season.</p>	1

P.G.I. No.	Description and Findings	Qty.
2.VIII.9	<u>PLOT COMBINE, SELF PROPELLED</u>	5

DISTRIBUTION: AARI - 03; Sargodha-1 and Bahawalpur-1.

UTILIZATION: None of the combines were reported being utilized.

PREVIOUS ACTION: (1) PARC authorities were informed about the defects.

(2) USAID visiting team was informed about the defects.

COMPLAINT: All the five units were reported to have all /one of the following defects:

- a) Idler pulley was damaged each time it was put into operation after repairs and could not give even a few hours satisfactory service.
- b) Joints of Header Arm broken within a few minutes of first operation. Joints were welded many times but into operation.
- c) Locking pin of steering axle broken/damaged during operation and was replaced.
- d) The rims of front wheels broken during normal operation and were replaced by local once. The rim plates were not properly fitted and welded.

Department further complained that the local representative (M/s. Sargroh Farm Aids Private Ltd.) of the manufacturer was not cooperating in providing under warranty services and repairs.

P.G.I. No.	Description and Findings	Qty.
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OBSERVATIONS: Similar defects were reported by other institutes where combines were supplied.

Defect a) Idler pulley of the same small plot combine supplied to RRI, Dokri (Sind) was found to be broken in the same manner. A common manner of fracture development shows that a low quality component is fitted.

Defect b) Joints of header arms were reported to be broken within few minute of first operation.

It seems that the operators were not fully acquainted with the machine and hence could not properly operate it, this particular defect can be attributed to misuse.

Defect c) Since the broken/damaged locking pin of steering axle was not available for physical inspection, the root cause of this particular defect could not be ascertained.

Defect d) The defective/broken rims were inspected physically. The defect seems to be developed such that first the poorly welded rim support plates teared apart, causing concentration of load upon the rim rings, which bent and finally got severely damaged.

This particular defect can only be attributed to poor workmanship (poor welding) of the manufacturer.

P.G.I. No.	Description and Findings	Qty.
	<u>SUGGESTION:</u> PARC should follow the local supplier (M/s. Sargroh Farm Aids (Pvt) Ltd.) to provide under warranty services to the institute.	
2.VIII.11	<u>SEED CLEANER AND GRADERS</u> Distributed to various stations.	8
	<u>WHEAT DEPARTMENT:</u> Stored in poor condition. Not being utilized since the sieves supplied were of improper mesh size for wheat grading. The other six were reported to be not utilized at other stations. Details were not available with the institute authorities.	1
2.VIII.13	<u>SPRAYER, ULTRA LOW VOLUME, KNAPSACK TYPE</u> Stored in poor conditions. Not being utilized.	2
2.XI.1	<u>ROOM AIRCONDITIONER</u> <u>DISTRIBUTION</u> RRI, Kala Shah Kaku (1) <u>AARI, FAISALABAD</u> (4) <u>AARI:</u> One of the four is properly stored and being utilized. Rest three were properly stored and were reported to be non-operational.	5

P.G.I. No.	Description and Findings	Qty.
	<p><u>PREVIOUS ACTION:</u> A local air-conditioning mechanic was contacted by the institute who checked the three defective, Airconditioners and informed that gas from two of the defective Airconditioner had leaked out. Compressor of the third A/c. was reported to be out of order.</p>	
	<p><u>SUGGESTION:</u> Local agent of the supplier (M/s. P.E.M. Corporation, U.S.A.) should be contacted to provide, under-warranty, free services.</p>	

COMPLAINT/COMMENTS SHEETS

A.A.R.I., FAISALABAD

COMPLAINT/COMMENTS SHEET NO. 01-A

Institution: AAZI Faisalabad Location: Soil Bactriology Date Insp: Nov. 28/29

P.G.L.No. 2-I-07 Description: Kjeldhel Micro App. Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Only kjeldhel digestion unit is supplied whereas, as per the contract document, the kjeldhel distillation unit should have also been provided.

Action Taken: _____

Observation: Only the kjeldhel digestion unit was supplied.

Remarks: The contract document clearly mentions the specifications of both kjeldhel digestion unit and the kjeldhel distillation unit and both units should have been supplied.

Contractor's Signature: Muhammad

Counterpart's Signature: _____

Institution Rep.'s Signature: Muhammad Saad

No. 15293
16-6-88

Mr. Liaquat Hussain,
Senior Purchase Officer (MART),
PARC, Post Box No.1031,
Islamabad.

SUBJECT: PLOT COMBINES ALMACO U.S.A.

It has been brought to the knowledge of the undersigned that Plot Combine procured and delivered under MART Project are found defective in material and workmanship. These have given very poor performance during the operation of harvesting and threshing of wheat specimens. The material used in the fabrication is substandard and inferior, therefore these could not bear little stress in the field. The following problems and defects were commonly observed:

1. Idler Pulley damaged again and again during the course of operation. The bearing and pulley had to be replaced many times from local market.
2. Joints of Header Arms were broken after a few minutes operation. These got to be rewelded.
3. Locking Pin of Sprocket and shaft were broken/damaged and this had to be replaced.
4. The Rims of front wheels were broken during normal operation. These had to be replaced with locally fabricated. The plates in the rim were not properly welded and fixed.

It is generally observed that most of the parts of the machine were made of very thin sheet of iron, not properly welded and fixed, hence were not strong enough to take the load during operation. These machines behave like a white elephant and their maintenance is very expensive and we had to arrange for their replacement of parts again and again during harvesting and threshing when one cannot afford to wait for a long time. This is the

contd.....P/2....

case during first operation of new machine, what can be expected during the coming years? These machines not only caused heavy expenses but also wastage of time and labour.

It is, therefore, requested that the manufacturer M/s. ALMICO, USA and their local agents M/s. Sargroh Farm Aids (Pvt.) Ltd., Lahore may kindly be approached to fulfil their contractual obligations. According to the warranty condition these machines are to be replaced with new and good quality machines. Moreover, the heavy expenses incurred during their first operation on repairs and replacement of parts needs to be recovered from the supplier. Two machines bearing following serial number were badly affected as these were extensively used:

1. SER.NO.87008
2. SER.NO.87009

o/c. DIRECTOR GENERAL AGRI. (RESEARCH),
AYUB AGRICULTURAL RESEARCH INSTITUTE,
FAISALABAD.

No. 15294

Dated F/Abad, the 16-1-82 /.

Copy forwarded to M/s. Sargroh Farm Aids (Pvt.) Ltd., 72-P Model Town (Ext), Lahore-14 for information and necessary action.

o/c. DIRECTOR GENERAL AGRI. (RESEARCH),
AYUB AGRICULTURAL RESEARCH INSTITUTE,
FAISALABAD.

COMPLAINT/COMMENTS SHEET NO. 02 - A

Institution: A.A.R.I.,aisalabad Location: Wheat Research Instrt. Date Insp. 25/20-11-8

P.G.L.No. 2-VIII.7 Description: Self Propelled combine Plat Qty: 05

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: For Details of Complaints, please refer attached sheets. Three combines are presently lying with AARI,aisalabad, 01 is at Sargodha, and 01 is at Bahawalpur stations. All the five combines are reported to have similar problems.

Action Taken: (1) PAK authorities were informed in written.
(2) USAID team was informed regarding the defects/complaints during AARI's visit.

Observation: One of the combines was inspected physically. Seems to have the defects mentioned in the attached sheets (copy of the letter written to SPO PAK by DG AARI) is ~~attached~~.

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: At

Institution Rep.'s Signature: Muhammad Saad

COMPLAINT/COMMENTS SHEET NO. 73-A.

Institution: AARI, Laisalabad Location: _____ Date Insp.: _____
 P.G.L. No. 2-XI-1 Description: Room A/C Qty: 05
 Supplier: PEM USA Local Rep: ~~Scientific Suppliers~~
 Brand/Model: _____ Origin: USA

Nature of Complaint: Out of the 05 A/c's, one was ~~not~~ handed over to RRI, Kala Shah Kaku, 04 are in possession of AARI.
As reported by the local A/c engineers (Supplier's local Rep.) 02 A/c's gas has leaked out and the ~~leaking~~ 3rd A/c's compressor is out of order, while the 4th one is ok.

Observation: 02 A/c's are not being utilized as are reported to ~~be defective~~ have gas leakage / compressor problems.

The local Rep. of the Supplier should have intervened in this complaint.

Contractor's Signature: Nasir
 Counterpart's Signature: _____
 Instt. Rep.'s Signature: Muhammad Saad

COMPLAINT/COMMENTS SHEET NO. 04-A

Instit. A.A.R.I., Erand Location Entomology Date Insp. Nov. 29/2015

P.G.L.No. 2. VII. 6 Description: Environmental Chamber Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The equipment is not being commissioned and utilized since Chamber trays, Fluorescent tube lights and incandescent light bulbs are short-supplied. Provision for 04 Nos tube lights & 03 Nos incandescent lights is given.

Action Taken: Given.

~~(1) PABC authorities were informed earlier~~

(1) USAID team comprising of Dr. Saeed & Dr. Chughtai was informed concerning the matter.

Observation: _____

The contract documents do not specifically explain that whether the above mentioned items were to be supplied with the eqpt. or not.

Remarks: _____

Chamber trays were provided with another set of environmental chamber (supplied to AARI) of the same brand and specifications. The missing items should have been provided

Contractor's Signature: Saeed with the equipment for ready utilization.

Counterpart's Signature: _____

Instit. Rep.'s Signature: Mukhammad Saeed

COMPLAINT/COMMENTS SHEET NO.

05-A

HORTICULTURE

Institution: A.A.R.I., Faisalabad

Location: ~~Horticulture~~

Date Insp. Nov. 29/30 80

P.G.L.No. 2. VII. 6

Description: Environmental

Qty: 01

Supplier: _____

Local Rep: _____

Brand/Manuf. _____

Origin: _____

Nature of Complaint: The equipment is not being utilized at present since the fluorescent tube-lights (04 Nos) and incandescent light (3 Nos) were not supplied with the equipment.

Action Taken: (1) USAID team was informed concerning the said complaint.

Observation: The Contract documents do not specifically mention that whether these ~~equ~~ items were to be supplied with the eqpt. or not.

Remarks: The equipment should have been supplied with the above mentioned items for ready utilization.

Contractor's Signature: _____

Nisoor

Counterpart's Signature: _____

Institution Rep.'s Signature: _____

Muhammad Saad

OFFICE OF THE DIRECTOR GENERAL AGRICULTURE (RESEARCH),
AYUB AGRICULTURAL RESEARCH INSTITUTE, FAISALABAD.

No. 11-55 /Tech/E-6,
Dated Faisalabad, the 28-4-88

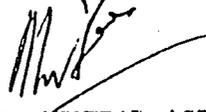
To

Mr. Shafiq A. Khan,
Programme Officer (HART),
Pakistan Agricultural Research
Council, Islamabad.

Subject:- INSTALLATION OF PERKIN -ELMER EQUIPMENT
APR-5100:

The Agricultural Chemist (Bio)chemistry, Ayub
Agricultural Research Institute, Faisalabad, has requested to
approach to your office to direct the supplying firm to come
and install the equipment at any time.

It is therefore, requested that Mr. Pervez Ahma
Azmi, Sales Executive Analytical Equipment Group, Zelin (Pvt.)
Limited P.O.Box No.7318 A. Haroon/ H.A.Jinnah Road, Karachi-3,
may kindly be directed to do the needful at an early date.

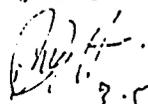

DIRECTOR GENERAL AGRICULTURE (RESEARCH),
AYUB AGRICULTURAL RESEARCH INSTITUTE,
FAISALABAD. 25/4 88

See:-

Pl. Issue letter +
file

OPM) 3-5-1488

A letter issued


3-5-88

BEST AVAILABLE COPY

OFFICE OF THE DIRECTOR GENERAL AGRICULTURE(RESEARCH)
AYUB AGRICULTURAL RESEARCH INSTITUTE, FAISALABAD.

No. 10148 /Tech/E-6(MAR)
Dated Faisalabad, the 18-4-88

To

Mr. Shafaat Ali Khan,
Programme Officer(MART),
(MART Project),
Pakistan Agri. Research Council,
Islamabad.

SUBJECT: INSPECTION OF ENVIRONMENTAL CHAMBER:

An environmental chamber labline Biotronette Mark-III has been provided to the Entomologist, Ayub Agri. Research Institute, Faisalabad, under MART Programme. The supply comprises of the following as found in the packing after opening:-

- 1- Main equipment labline Biotronette Mark-III (environmental chamber) Model-846-3 serial No. 0787-0581.
- 2- Two sliding glass doors.
- 3- Plastic trays with lids four only T₅-A.
- 4- Five heating cabbles 846-3 with installation instructions.
- 5- Operational manual one.
- 6- Reference manual one.
- 7- Fuses-5 Nos.

The following essential components and accessories have however been found short and missing from packing:-

- 1- Fluorescent tubes 40 watts rapid start 48" long 4 Nos.
- 2- Incandescent lamps 150 watts-3 Nos.
- 3- Shelf racks fittings 4 Nos.

It is, therefore, requested that the appropriate authority may kindly be asked to make up the shortage at the earliest so that the instruments could be got installed through the concerned authority and used in our research activities.

BEST AVAILABLE COPY

Mansoor H. Beg
Director General Agriculture(Research),
Ayub Agricultural Research Institute,
Faisalabad.

MUKHTAR
30.3.1988

54

85

OFFICE OF THE DIRECTOR GENERAL AGRICULTURE(RESEARCH)
AYUB AGRICULTURAL RESEARCH INSTITUTE, FAISALABAD.

No. 10167 /Tech/E-6(MART)
Dated Faisalabad, the 18-4-83

To

Mr. Shafaat Ali Khan,
Programme Officer(MART),
(MART Project),
Pakistan Agri. Research Council,
Islamabad.

SUBJECT: INSTALATION OF EQUIPMENT RECEIVED
UNDER MART PROGRAMME:

The Soil Bacteriologist, Ayub Agri. Research Institute, Faisalabad has requested that the concerned firm/authority may kindly be asked for the installation of the following scientific equipments in their laboratory:-

<u>S.No.</u>	<u>Equipment</u>
1-	Labconco Freez dryer.
2-	Bio Safe, Hood-Laminor flow bench type.
3-	PHI-Series Microcomputer, Ph meter, BECKMAN.
4-	Stero Scope Zoom Microscope, PEICHERT.

Moreovqr he has intimated that in the equipment tails given below received in 2nd instalment, deficiencies own against each have been observed:-

<u>S.No.</u>	<u>Equipment.</u>	<u>Deficiencies.</u>
1-	PHI-Series Microcomputer. Ph. meter.	i) Automatic temperature compensator(ATC)probe. ii) Specific ions electroc $\text{NH}_4^+, \text{NO}_3^-, \text{CO}_3^{--}, \text{HCO}_3^-, \text{SO}_4^{--}$
2-	Freez dryer.	i) Vacauume pump.

It is, therefore, requested that the accessories/spars may kindly be supplied according to the specifications so that the equipment may be brought under proper functioning condition. The delay will deteriorate the functioning quality of the equipments.

BEST AVAILABLE COPY

Kamran Khan
Director General Agriculture(Research),
Ayub Agricultural Research Institute,
Faisalabad.

NUKHTAR 55

MOST URGENT

No. 2664 Inst.

Dated Multan, the.....
25-5-88

To

Mr. M. H. Zaidi,
Secretary World Bank Projects,
Pakistan Agricultural Research Council,
I S L A M A B A D.

Subject:- INSTALLATION OF EQUIPMENT UNDER "MART" PROJECT.

Memo:

Kindly refer to this office letter No. 1228/Inst. dated 17.3.88 and Endst. No. 1652/Inst. dated 5.4.88 addressed to the Senior Procurement Officer, PARC wherein it was requested to direct the Instruments supplying Firm (M/S Farrukh Trading Company, Lahore) to install the equipment in the AMRI Multan Laboratory as a number of items have been short supplied (detail already supplied).

The Agricultural Engineer (Instrumentation) AMRI Multan personally paid visit twice to the dealer's Office and also talked on telephone on the above subject but to no avail.

The project titled "Strengthening of Testing and Measuring Capabilities of AMRI, Multan" is going to be terminate w.e.f. 30.6.88 and the equipment being supplied through "MART" is lying unused for the reasons explained above.

It is requested that the payment of the said Firm may be stopped and directed to the Firm to install the equipment as per commitment.

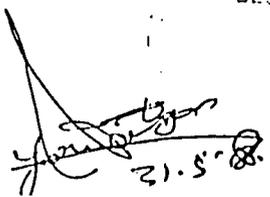

Director,
Agricultural Mechanization
Research Institute, Multan.

BEST AVAILABLE COPY

VID...
Project Secretary (P)

→
70 (MART)
31/5/88

THIS RELATES TO
WBP.
31-5-1988
(WBP)


21.5.88

AGRICULTURAL UNIVERSITY, FAISALABAD

Following is the list of equipments which are properly stored and are being effectively utilized.

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
2.I.1	<u>OVEN BAKING, REEL TYPE</u>	2
2.I.2	<u>BALANCE ELECTRONIC</u>	4
2.I.3	<u>MUFFLE FURNACE</u>	3
2.I.5	<u>MILK ACIDITY TESTER</u>	1
2.I.6	<u>EXTRACTION APPARATUS, MULTI UNIT</u> Out of the four units supplied, three are being utilized. One has not been commissioned yet. Department has future plans of utilizing the equipment.	4
2.I.9	<u>MILL EXPERIMENTAL BUHLER TYPE</u>	1
2.I.10	<u>FUME HOOD, FIBER GLASS</u>	1
2.I.12	<u>SPECTROPHOTOMETER VIS</u>	4
2.I.13	<u>CALOIMETER</u>	1
2.I.18	<u>AUTOClave STERILIZER</u>	4
2.I.21	<u>PRECISION BENCH TYPE INCUBATOR</u>	1
2.I.22	<u>ELECTROPHORESIS KIT</u>	1
2.I.23	<u>OVEN DRYING FORCED, CONVECTION</u>	1
2.I.24	<u>ULTRAVIOLET TUBE</u>	1
2.I.26	<u>WATER BATH, TISSUE FLOATATION</u>	1
2.I.27	<u>STILL WATER MEGA PURE</u>	4
2.I.28	<u>OSMETER</u>	1
2.I.30	<u>LIQUID NITROGEN FREEZER</u>	5
2.II.1	<u>SOIL ACIDITY AND MOISTURE TESTER</u>	2
2.II.2	<u>BALANCE, SEMI MICRO ELECTRONIC ANALYTICAL</u>	1
2.II.3	<u>DISECTING MICROSCOPE STEREOZOOM</u>	1

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
2.II.5	<u>HUMIDIFIER, STANDARD SIZE</u>	1
2.II.8	<u>GROWTH CHAMBER</u>	3
2.II.12	<u>LEAF AREA METER</u>	2
2.II.13	<u>SOLARITY METER</u>	1
2.II.14	<u>POLARIMETER</u>	1
2.II.15	<u>PORTABLE ECONO-POWER, AIR COMPRESSOR</u>	1
2.II.16	<u>VACUUM PUMP</u>	2
2.II.19	<u>ELECTRIC SPATULA</u>	1
2.II.23	<u>GELMAN CHROMIST SYSTEM</u>	6
2.II.27	<u>VISCOMETER SAYBOLT</u>	2
2.II.30	<u>MICROTOME PRECISION ROTARY</u>	2
2.III.1	<u>GRADIENT H.P.L.C</u>	1
2.III.2	<u>pH METER</u>	7
2.III.3	<u>TJ - 6R - CENTRIFUGE</u>	2
2.III.4	<u>APPRAISE DENSIOMETER</u>	1
2.III.7	<u>UV - VIS, SPECTROPHOTOMETER</u>	1
2.III.9	<u>pHI-71, pH METER</u>	1
2.IV.1	<u>CHROMATOGRAPHY KIT</u>	7
2.IV.2	<u>BINOCULARS - FIELD</u>	4
2.IV.3	<u>TELESCOPE</u>	1
2.IV.4	<u>LIMINOLOGY WATER TEST KIT</u>	5
2.IV.6	<u>CHROMATOGRAPHIC COLUMNS, ECONOMY</u>	6
2.IV.7	<u>TLC - PREQUOTED GLASS PLATES</u>	10
2.IV.9	<u>REFRIGERATOR FLAME MATERIALS</u>	1
2.IV.14	<u>MICROTOME SLIDING HEAVY DUTY</u>	1
2.IV.15	<u>LOW-TEMPERATURE INCUBATOR DUAL PROGRAM</u>	1

P.G.I. No.	Description and Findings	Qty.
2.IV.27	<u>TRANSPARENCY FILM ROLL</u>	1
2.V.1	<u>OSCILLOSCOPE</u>	1
2.V.2	<u>AUTOMATIC COIL WINDING MACHINE</u>	2
2.V.3	<u>DIGITAL TYPE ELUMINATION METER</u>	1
2.V.4	<u>DIGITAL MULTIMETER</u>	1
2.V.6	<u>ENGRAVING MACHINE</u>	1
2.V.8	<u>24" SIZE SCROLL SAW</u>	1
2.V.11	<u>MILLING MACHINE WITH DIVIDING HEAD</u>	1
2.V.12	<u>TOOL GRINDER</u>	1
2.VI.1	<u>ATOMIC ABSORPTION SPECTROPHOTOMETER</u>	1
2.VI.2	<u>GAS CHROMOTOGRAPH</u>	1
2.VIII.3	<u>PRECISION DIVIDER</u>	1
2.XI.1	<u>ROOM AIR CONDITIONER</u>	3
UN-KNOWN	<u>SOUND LEVEL METER</u>	6
UN-KNOWN	<u>VINYL TOOL KIT</u>	2

P.G.I. No.	Description and Findings	Qty.
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EQUIPMENTS HAVING COMPLAINTS/NOT BEING UTILIZED

2.I.7	<u>KJELDEHL MICRO APPARATUS</u>	2
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Stored properly. Not being utilized.

OBSERVATION: As per the contract documents, complete Kjeldahl Micro Apparatus (Consisting of both the digestion unit and the distillation unit) was to be supplied. Instead, only the digestion unit was supplied. However, Mr. Liaquat Hussain, SPO (PARC) informed on June 8, 1989 that the supplier of this equipment has been contacted in this regard who has agreed to send the missing parts to the provinces.

REMARKS: Distillations unit short-supplied.

2.I.8	<u>FREEZER, CHEST TYPE</u>	3
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Properly stored and are being utilized.

OBSERVATION: There are several cracks/crack marks on the sealing edge of the freezer body. Some of the pieces found glued.

The cracks seems to be repaired at the origin of the supply. Similar cracks were observed on freezers supplied to other institutes/provinces.

2.I.16	<u>REFRIGERATOR UPRIGHT</u>	5
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Four of the refrigerators were stored properly, commissioned and were being utilized. One of the refrigera-

P.G.I. No.	Description and Findings	Qty.
	<p>tors in Plant Breeding Department was stored in poor condition and had not been commissioned. Department reported that the refrigerator was not commissioned since power plug was not available.</p>	
2.I.17	<p><u>TEFLON BURET</u></p> <p>Stored properly and being utilized. As per the PARC list, 12 Teflon burets were ordered and none was received, whereas one teflon buret was supplied to Ag. University.</p>	1
2.I.19	<p><u>CRUSHER GRINDING MILL</u></p> <p>Both are stored properly. One of the mills is being utilized while other has not been commissioned yet. Department has future plans to utilize the other mill too.</p>	2
2.I.20	<p><u>FLAME PHOTOMETER</u></p> <p>Stored properly. Not commissioned.</p> <p><u>UTILIZATION:</u> Equipment has not been utilized since propane-gas and compressed air are not available to operate the equipment. Department has plans to procure propane-gas cylinders and small capacity compressor and has requested the authorities to arrange funds for procurement.</p>	2
2.II.4	<p><u>ORBITAL SHAKER LAB-LINE</u></p> <p>One piece is stored properly and is being utilized.</p>	2

P.G.I. No.	Description and Findings	Qty.
	<u>HORTICULTURE DEPARTMENT:</u>	1
	Stored properly but not being utilized.	
	<u>UTILIZATION:</u> Equipment is supplied without the flasks/ tubes holding platform and so can not be utilized.	
	Department reported that flask-platform was found missing when equipment was un-packed.	
	<u>REMARKS:</u> Flask-Hold platform short-supplied.	
2. II. 7	<u>HOOD LAMINAR FLOW</u>	2
	Stored properly. Not commissioned.	
	<u>MISSING:</u> No instruction/operation manual was supplied with the equipment. Hence could not be commissioned/ utilized.	
	<u>PREVIOUS ACTION:</u> Department wrote two letters to the manufacturer asking to supply instruction/operation manual but has not received any acknowledgment yet.	
	<u>SUGGESTION:</u> The same equipment has been installed and is being utilized at AART, Faisalabad. PARC should request the AART to provide assistance in installing the equipment.	
2. II. 9	<u>STUDENT MICROSCOPE</u>	10
	Stored packed. Not commissioned. Department reported that the microscopes will be commissioned and utilized soon after the beginning of new academic session.	

P. I. No.	Description and Findings	Qty.
2.II.10	<u>REFRACTOMETER, BRIX HAND HELD</u> As per the PARC issue list (prepared by Mr. Idrees of NARC), two refractometers were delivered to Agriculture University vide voucher No. 2405 but the university authorities said that no refractometer was supplied.	2
2.II.11	<u>PORTABLE CONDUCTIVITY METER</u> Stored properly. Equipments has been commissioned but is not being utilized. Department has future plans to utilize the equipments.	2
2.II.21	<u>BALANCE, SPECIFIC GRAVITY</u> Stored properly. Not commissioned. Department told that the equipment will be utilized by post graduate students in forthcoming academic session.	1
2.II.22	<u>HYDROGENATION APPARATUS</u> Stored properly. Not commissioned. Department has future plans of utilization.	3
2.II.25	<u>CRUDE FIBER APPARATUS</u> Stored properly. Not commissioned. Department has future plans for utilization.	1
2.II.26	<u>PRESS, LABORATORY</u> Stored properly. Not commissioned. Department has future plans for utilization.	1

P.G.I. No.	Description and Findings	Qty.
2.II.28	<u>TINTOMETER, LOVIBOND</u> Stored properly. Not commissioned. <u>MISSING:</u> The operation/instruction manual was not supplied with the equipment so could not be utilized.	1
2.IV.8	<u>ORBITAL WATER BATH SHAKER</u> Stored properly. Not commissioned. <u>MISSING:</u> The flask hold tray was reported to be found missing when equipment was unpacked. <u>REMARKS:</u> Flask-hold tray short-supplied.	1
2.IV.11	<u>ROTAVAPOR MODEL R 151-LABSCO</u> Stored properly. Not commissioned. Department has future plans for utilization.	1
2.IV.12	<u>PHOTO-SYNTHESIS KIT</u> Stored properly. Not commissioned. Department has future plans for utilization.	4
2.IV.13	<u>OSMOSIS AND DIFFUSION KIT</u> Properly stored and being utilized. <u>NOTE:</u> The PARC issue list (Prepared by Mr. Idrees of NARC) shows that four Nos. kits were delivered vide voucher No. 2153 whereas university record shows that 03 kits were received. As such 01 kit is missing.	3

P.G.I. No.	Description and Findings	Qty.
2.IV.17	<u>GAUGE, THERMOCOUPLE VACUUM</u> Properly stored and being utilized.	1
	<u>NOTE:</u> The gauge has not been recorded in the PARC issue list.	
2.IV.18	<u>VACUUM OVEN 1438</u> Stored properly. Not commissioned.	2
	<u>UTILIZATION:</u> The transformer required to operate the oven was not supplied. Department has plan to procure a transformer locally for utilizing the equipment. The contract document does not clarify that whether the transformer was to supplied with the oven or not ?	
	<u>SUGGESTION</u> The deptt. was advised to procure a 110/220 transformer locally.	
2.IV.19	<u>PUMP, HIGH VACUUM</u> Properly stored. Not commissioned.	1
	<u>UTILIZATION:</u> The transformer required to operate the equipment was not supplied with the equipment. Department has plan to procure a transformer locally for utilizing the equipment.	
2.IV.22	<u>PROBE LEAD EXTENSION WITH CONNECTORS</u> Stored properly. Not utilized.	2

P.G.I. No.	Description and Findings	Qty.
2.IV.25	<u>ANEMOMETER, ANALOG INDICATING SYSTEM</u> Properly stored and being utilized. <u>NOTE:</u> The item was not recorded in PARC's list.	1
2.V.5	<u>DIGITAL THERMOMETER</u> Stored properly. Reported that it was found defective when received. Does not display temperature. <u>SUGGESTION:</u> NARC should provide the repair services.	1
2.V.7	<u>PUNCHING & RIVETING MACHINE</u> Stored properly. Not installed. <u>UTILIZATION:</u> The machine is pneumatic one, and requires compressed air for operation. Department does not have any compressor so machine is not being utilized. Department further informed that procurement of a compressor was not possible in the current fiscal year since funds were not included in the department's budget for the purpose.	1
2.V.9	<u>SOLDER SUCKER 25 W</u>	1
2.V.10	<u>SOLDER SUCKER 40 W</u> Solder irons supplied instead of suckers. Both the above items are stored properly and are not being utilized, since the supply is not as per the specification. Instead of two solder suckers two soldering irons were supplied which were not required.	1

P.G. I. No.	Description and Findings	Qty.
2.VIII.1	<u>SHELLER-HUSKER-SHELLER PORTABLE</u> Stored properly. Not commissioned. <u>UTILIZATION:</u> Department requires training on installation/operation of the equipment.	1
2.VIII.2	<u>SEED GERMINATOR SINGLE CHAMBER</u> <u>AGRONOMY DEPARTMENT:</u> Stored properly. Not commissioned yet since the fluorescent tube lights were reported to be found broken when equipment was received. <u>SUGGESTION:</u> (1) Insurance claim should be lodged by PARC since damage seems to be occurred during shipment. (2) Department should ask the supplier to provide specifications of the tube lights used so that if such damage occurs in future, item could be procured to catty. <u>CROP PHYSIOLOGY DEPARTMENT:</u> Stored properly and being utilized.	2
2.XII.1-116	<u>GLASSWARE ITEMS</u> Distributed to various departments. Stored properly and are being utilized. <u>MISSING ITEMS:</u> The inspection team did not have with them any detailed list of glassware items to be supplied to the institute. The Agrl. University authorities reported that following items were short supplied.	

P.G.I. No.	Description and Findings	Qty.
<u>ITEM NO.</u>	<u>DETAILS</u>	
4	Cylinder Graduated White Line 10 ml x 0.2 ml.	4
16	Funnel Separatory 125 ml, 12/CS.	6
23	Boiling Flask, Florence, 500 ml, 72/CS.	1
40	Carboy Rectangular LFE 5 gal.	2 of 1 gal each.
45c	Buret Class A 50 ml.	3
59c	Volumetric Pipets 2 ml. Class A.	5
65d	Beaker Griffin 600 ml. 36/CS.	12
65e	Beaker Griffin 1000 ml. 24/CS.	24
66b	Flask Erlenmeyer 125 ml, 48/CS	10
79	Pipet Volumetric 1 ml, 12/CS.	2
	Bacteriological Pipet 1.1 ml.	1 dozen Excess
	Flask Volumetric 1000 ml. 4/CS	8
	Flask Kjeldhal 3000/5001124/CS	16
59-B	Volumetric Pipets 1 ml.	1
	Petri Dishes (only bottom were received and top were missing).	1740

2.XIII.1-86

CHEMICALS

Distributed to various departments. Reported to be consumed and stored properly.

Inspection team did not have with them any detailed list of chemicals to be supplied to the institute. It was reported by the department that following chemicals were short supplied at the time of delivery.

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
<u>ITEM NO.</u>	<u>DETAILS</u>	
22	Phosphoric Acid Cert ACS 2.5 L.	17
34	Sodium Chloride Cert ACS 6 x 1 kg/CS.	5
62	Magnesium Carbonate 6 x 500 g/CS.	7600 Grams
77	ETDA Di-Sodium Salt 6 x 500 g/CS.	12500 Grams

COMPLAINT/COMMENTS SHEETS
AGRICULTURAL UNIVERSITY, FAISALABAD

COMPLAINT/COMMENTS SHEET NO. 01

Institution: Ag. U. Laisakabac Location Soil Lab. Date Insp. 26/11/88

P.G.L.No. 2-4-8 Description: Orbital Shaker Qty: 1

Supplier: New World Research Corp. ^{U.S.A.} Local Rep: _____

Brand/Manuf. Lab-Line - 3540-1 Origin: U.S.A.

Nature of Complaint: The equipment is not complete, without flask/tube hold tray/plate, which is not supplied with the shaker. Equipment is not in use since tube hold key is not available.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: <u>Nasrol</u>	
Counterpart's Signature: <u>[Signature]</u>	
Institution's Rep.'s Signature: <u>[Signature]</u>	

COMPLAINT/COMMENTS SHEET NO. 02

Institution: Ag. Univ. Peralabuan Location: Repair Cell Date Insp.: 26/11/88

P.G.L.No. 2-5-9 Description: Solder Sucker Qty: 1

Supplier: Pem Science Corp. Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Soldering iron was supplied instead of Sucker. Equipment supplied is not as per the contract documents.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: <u>[Signature]</u>	
Counterpart's Signature: _____	<u>[Signature]</u>
Institution's Rep.'s Signature: _____	<u>[Signature]</u>

COMPLAINT/COMMENTS SHEET NO. 03

Institution: Pg. Univ. Raisulmal Location: Repair Cell Date Insp: 26/11

P.G.L.No. 2-5, 10 Description: Solder Sucker Qty: 1

Supplier: Pew Science Corp Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Soldering iron was supplied instead of sucker. Equipment supplied is not as per contract documents.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

~~Copy~~
COMPLAINT/COMMENTS SHEET NO. 04

Institution: Ag. Univ. Faisalabad Location: Crop. Physiology Date Insp.: 27.11.68

P.G.I. No. 2-3.2 Description: 43 pH Meter Qty: 01

Supplier: _____ Local Rep: Scientific Supplies

Brand Manuf. _____ Origin: U.S.A.

Nature of Complaint: Electrode: is not standard, so the apparatus does not give correct readings.

Action Taken: A standard electrode was used and the correct recordings were obtained. The local representative's service Engineer inspected the apparatus and suggested some actions which are to be taken now.

Observation: Please see attached report.

Remarks: Electrode supplied with the instrument (pH meter) are defective & thus can not be used. All the pH meters supplied here the same problem. (Gibson)

Contractor's Signature: <u>[Signature]</u>	
Counterpart's Signature: <u>[Signature]</u>	
Institution's Representative's Signature: <u>[Signature]</u>	

Cyan Electrode can't work w/o reference electrode

SCIENTIFIC SUPPLIES

SERVICE DEPARTMENT

15 - EDWARD ROAD, G.P.O. BOX 2179
 (SYED MOUJ DARYA ROAD)
 LAHORE - PAKISTAN
 Tele: (042) 323390 Cables: LABSMAN
 TELEX: 44140-SHSS-PK

Dated: 20-9-88

Customers' Name	CROP PHYSIOLOGY DEPT,	Instrument	pH
Address	AGRICULTURE UNIVERSITY Faisalabad	Model	φ 43 pH
		Serial No.	0113267
		Catalogue No.	123104

MATERIAL USED				LABOUR - TRAVEL - EXPENSES	
DESCRIPTION	P/N	Qty.	Total Price		
				Labour Hours	
				Travel Exp.	
				Hourly Rate	
				Other Exp.	
				TOTAL	

REPORT

INSTALLATION

UNPACKED AND PHYSICALLY CHECKED - ALL OK
 INSTALLED ELECTRODE HOLDER ROD AND GEL COMBINATION
 ELECTRODE. INSTALLED AUTOMATIC THERMAL COMPENSATOR
 SWITCHED ON AND STANDARDIZED. INSTRUMENT INDICATES
 SLOPE OFFSET. WHEN SOLUTIONS WERE MADE BUT INDICATION
 PERSIST. ALL TESTS FOR PH METER ARE OK ANOTHER ELECTRODE
 WAS USED AND READING / STANDARDIZATION ARE OK.
 ADVISED TO DIP ELECTRODE IN KCL SOLUTION FOR 3 MINUTES AND
 RECHECK TM PERFORMANCE. PH METER IS OK

SERVICE ENGINEER

CUSTOMER'S SIGNATURE

[Signature]
 20/9/88

[Signature]
 75

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COMPLAINT/COMMENTS SHEET NO. 05

Institution: Ag. U. Faisalabad Location: Live Stock Dept. Date Insp.: 27/11/86

P.G.L.No. 2. I. 7 Description: Kjeldahl apparatus Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The deptt. requires kjeldahl distillation apparatus whereas is supplied with kjeldahl micro-digestion apparatus. kjeldahl micro apparatus is not being used.

Action Taken: _____

Observation: In the contract documents, both kjeldahl micro-apparatus and the kjeldahl distillation apparatus are mentioned under P.G.I. No 2-I.7 whereas only micro-apparatus is supplied

Remarks: _____

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 06

Institution: Ag. Univ. Faisalabad Location: Hort. Deptt. Date Insp: 27/11/88

P.G.L.No. 2-I-7 Description: Kjeldahl Apparatus Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The deptt. requires kjeldahl distillation apparatus whereas only kjeldahl micro-apparatus is supplied. Kjeldahl micro apparatus is not being used.

Action Taken: _____

Observation: Item 2-1-7 of the contract document shows both kjeldahl micro-apparatus and kjeldahl distillation apparatus whereas only the micro-apparatus is supplied.

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 07

Institution Ag. Univ. Paisalabad Location Soil Science Date Insp. 26/11

P.G.L.No. 2-II-4 Description: Orbital Shaker Qty: 01

Supplier: New World Research Corp. U.S.A. Local Rep: _____

Brand/Manuf. Lab Line Origin: U.S.A.

Nature of Complaint: The orbital shaker is supplied without the flaky-tube hold platform and so is not being used.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Asad

Counterpart's Signature: [Signature]

Institution's Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 08

Institution: Az - Univ. Faisalabad Location: Pakist Pathology Date Insp.: 27/11/88

P.G.I. No. 2. II. 7 Description: Horizontal laminar flow; 62

Supplier: _____ Date Recd: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Could not be commissioned since operation manual is missing

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 09

Institution: Ag. Univ.aisalabad Location: Soil Science Date Insp.: 26/11/88

P.G.I. No. 2-II-28 Description: Levibond Tinometer Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Not Com. issued since operation /
Instruction Manual is missing.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: <u>Natool</u>	
Counterpart's Signature: <u>[Signature]</u>	
Institution's Rep.'s Signature: <u>Jalilov</u>	

COMPLAINT/COMMENTS SHEET NO. 10

Instt. Ag. Univ. Faisalabad Location Repair Cell Date Insp. 26/11

P.G.L. No. 2. V. 5 Description: Digital Thermometer Qty: 01

Supplier: Pem Science Corp., U.S.A. Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Not Working

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 011

Institution: Az. Univ. Faisalabad Location: Agroonomy Date Insp: 27/11/85

P.G.L.No. 02. VIII. 02 Description: Seed Germinator Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Flourescent light found broken when un-packed. Not ~~was~~ commissioned for the season.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Natool

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 012

Institution: Ag. Univ. Faisalabad Location: Various depths Date Insp. Nov. 26/27

P.G.L.No. 2. XII. I - 116 Description: Glass ware Qty: _____

Supplier: _____ Inst. Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Various glassware items are ~~missing~~ ^{short-supplied}.
~~List of missing items attached.~~
List of short-shipped items attached.

Action Taken: _____

Observation: _____

Contractor's Signature: *A. Ahmad*

Counterpart's Signature: *[Signature]*

Institution's Rep.'s Signature: *[Signature]*
27/11

COMPLAINT/COMMENTS SHEET NO. 13

Institution: Ag. Univ. Paisalabad Location: Various dep'ts. Date Insp.: Nov. 24/27

P.G.L.No. 2-XIII-1-86 Description: Chemicals Qty:

Supplier: _____ Local Dep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Various Chemicals which were actually ordered and were included in the contract document were found short-shipped when consignment was checked and unpacked at

Action Taken: the Ag. Univ. Paisalabad. List of Short Shipped Chemicals attached.

Observation: _____

Remarks: _____

Contractor's Signature: <u>Nisood</u>
Counterpart's Signature: <u>[Signature]</u>
Institution's Rep.'s Signature: <u>[Signature]</u>

COMPLAINT/COMMENTS SHEET NO.

Instit. Aj. Univ. Raisalabad Location _____ Date Insp. _____

P.G.L.No. _____ Description: 43 PH Meter Qty: _____

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: _____

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Asad

Counterpart's Signature: _____

Instit. Rep.'s Signature: Asad

COMPLAINT/COMMENTS SHEET NO.

Instit. Ag. Univ. Faisalabad Location _____ Date Insp. _____

P.G.L.No. _____ Description: Orbital Shaker Qty: _____

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: _____

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: _____

Instr. Rep.'s Signature: Q. Khan

RICE RESEARCH INSTITUTE, KALA SHAH KAKU

P.G.I. No. Description and Findings Qty.

2.VI.1 ATOMIC ABSORPTION SPECTROPHOTOMETER 1

It is stored properly. The equipment has not been commissioned yet.

MISSING ITEMS: The department was of the view that following items should have been supplied with the spectrophotometer for full and effective utilization of the equipment.

- | | | |
|-----|---|---|
| 1. | 0047-0466 Burner Inst. Kit for AAS 5100 | |
| 2. | 0990-8173 Cushion on Glide | 4 |
| 3. | 0313-1435 Spacer Feed Base Pan | 4 |
| 4. | 0990-7220 Allen Key 3/16 | 1 |
| 5. | 0998-1616 Fuse 4 Amp. | 5 |
| 6. | N066-0122 Adapter Turret | 1 |
| 7. | 0990-9390 AAS News Letter Subscription Form | 1 |
| 8. | 0993-8148 5100 AAS Tutorial | 1 |
| 9. | 0993-9533 | 1 |
| 10. | 0303-0152 Cook Book AA | 1 |
| 11. | 0057-2825 | 1 |
| 12. | 0211-3057 Label Hot Surface Warning | 2 |
| 13. | 0993-8149 M5100 Reference Manual (Vol 1) | 1 |
| 14. | 0993-8229 M5100 Reference Manual (Vol 2) | 1 |
| 15. | Power Cable for Computer Model # 7700 | 1 |

The local Representatives (M/s. Zelins Limited) of the supplier (M/s. Perken Elmer), are of the view that the above mentioned items are not meant for RRI, Kala Shah Kaku. In view of observations of the local representatives, the above mentioned items are meant for complete consignment received under purchase order No. PAK-CMO-391-0489/87-09 by consignees at different sites all over Pakistan other than RRI, Kala Shah Kaku.

The local representative further added that the AA-spectrophotometer supplied to RRI is complete in all respects for proper functioning.

The Director General RRI consulted the AA Spectrophotometer specialist at AARI, Faisalabad, who explained that following parts/literature are however required for proper utilization of the equipment and are not supplied to ARI.

1. Burner Installation Kit for A.A.S. 5100
2. Allen Key 3/16
3. A.A.S. News Letter Subscription Form
4. 5100 A.A.S. Tutorial
5. Cook Book AA
6. Perkin Elmer Reference Manual Vol. 1
7. Perkin Elmer Reference Manual Vol. 2
8. Perkin Elmer Analytical Methods for A.A.S. 5100

P.G.I. No.	Description and Findings	Qty.
------------	--------------------------	------

CONCLUSION:

The inspection team was of the view that the items mentioned later seems to be necessary for proper utilization of the equipment. Item Nos. 3 to 8 (Manual, tutorial and other literature) are lying with AARI. These could be photocopied, and supplied to RRI immediately so that the equipment could be utilized without further loss of time. PARC should ask M/s. Zelins and M/s. Perken-Elmer to supply the item Nos. 1 to 8 to RRI at their earliest convenient.

CURRENT STATUS OF MISSING PARTS:

One carton of spectrophometer parts has been received by USAID, Karachi. M/s. Zelins Limited, supplier has informed that the carton contains the missing part of the A.A.S., being installed at R.R.I., Kala Shah Kaku.

However, details of the parts packed in the carton were not available with PARC/USAID. (Please See Exhibit C-1)

INSTALLATION SITE:

Installation site is now ready and the equipment should be commissioned without further loss of time. The RRI has asked M/s. Zelin Limited, to complete the installation of the equipment.

TRAINING: Institute requires on-hand training for utilization of the equipment. The classroom training provided previously could not develop the skills for the effective utilization of the equipment.

- 2.VII.7-A CYCLONE FERTILIZER SPREADER 2
 Received from AARI, Faisalabad. Well maintained and being utilized.
- 2.VIII.11 SEED AND GRAIN CLEANER AND GRADER 1
 Received from AARI, Faisalabad. Well maintained and being utilized.
- 2.XI.1 AIR CONDITIONER 1
 Received from AARI, Faisalabad. Well maintained and being utilized.

REPAIR: On receipt the A/c. was not working. It was repaired by a local A/c. mechanic (the gas had leaked during shipment) who refilled the gas and brought the A/c. in working order. Cost was incurred by the institute.

COMPLAINT/COMMENTS SHEETS

R.R.I. , KALA SHAH KAKU

COMPLAINT/COMMENTS SHEET NO. 01-RR

Instd. E.R.I. Kalshah kaban Location Sail Chemistry Date Insp. 17/12/68

P.G.L.No. _____ Description: Air Conditioner Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: When received, the A/C was not working. It was inspected by a local mechanic who diagnosed that the gas has been leaked out during shipment. The gas was refilled and the A/C is working perfectly now.

Action Taken: Gas refilled by the ~~Instt.~~ local mechanic. Cost incurred by the Instt.

Observation: _____

Remarks: _____

Contractor's Signature: <u>[Signature]</u>	
Counterpart's Signature: <u>[Signature]</u>	
Instd. Rep.'s Signature: <u>[Signature]</u>	

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USAID/MART Project
2 Sunnoodas Road
Lahore, Pakistan
Telex: 44928 USAID PK
Tele: 303779

I

Management of Agricultural Research and Technology Project

WL: 795

File:

July 17, 1988

Dr. Abdul Majid, Director General
Rice Research Institute
Kala Shah Kaku

Dear Dr. Majid,

I read your letter on July 11 when I returned from a trip. The next day I told Mr. Liaqat of the Procurement Section of the PARC about your problem with the airconditioner. He promised to telex the local representative of Frigidaire to get in touch with you immediately.

I am sorry that this had to happen and I hope that you will soon have your A/C and the Atomic Absorption Spectrophotometer in use.

Kind regards,

Sincerely,

Takumi Izuno

cc: The D.G.A. (R), Faisalabad
Mr. Liaqat, Procurement Officer, PARC, Islamabad

*File MART
shown to Ch. Afzal.*

28/7/88

*noted sir
Afzal.
30/7/88*





RICE RESEARCH INSTITUTE

KALA SHAH KAKU - Punjab, Pakistan

NO. 1554/15-100

DATED 4.7.68

Dr. Takumi Izuno
Mart Project, US Aid
2-Sundar Das Road
LAHORE.
Phone 303779

Dear Sir,

We received one Room Air Conditioner (FRIGIDAIRE) 2.5 ton capacity from Director General Agriculture (Research), Ayub Agricultural Research Institute, Faisalabad. The Room Air Conditioner was installed in Soil Chemistry Laboratory of this Institute and operated according to the instructions written in its manual. The cooling system is defective and only the fan is working. The Director General Agriculture (Research), Ayub Agricultural Research Institute, Faisalabad was informed on phone and his office advised to contact you for its repair. An early action is requested so that the Atomic Absorption Spectrophotometer is put in operation.

With regards.

Yours sincerely,

Dr. Abdul Majid
(DR. ABDUL MAJID)
DIRECTOR GENERAL AGRICULTURE

C.C.

The D.G.A. (R), F/Abad

o/c

COMPLAINT/COMMENTS SHEET NO. 02-RR

Instt. R.R.I. Kala Shah Kaku Location _____ Date Insp. 17/12/88

P.G.L.No. 2-VI-1 Description: AA Spectrophotometer Qty: 01

Supplier: _____ Local Rep: Felins (P) Ltd.

Brand/Manuf. PERKIN-ELMER Origin: U.S.A.

Nature of Complaint: ^① Installation site is ready. All the installation requirements have been fulfilled. ^② Felins Engineer is available for commissioning of the eqpt since 14.11.88 ^③ Concerned literature (list attached) was not supplied with the eqpt.

Action Taken: Correspondence with the Local Rep. & PARE has been initiated just after receipt of the eqpt. Copies of letters are attached

Observation: Two of the Instt.'s personnels were provided training on operation of the AA Spectrophotometer at Paisalabad. Both of them are in a position to operate the eqpt. perfectly. It is believed that as soon as the eqpt. is installed, it will be utilized effectively.

Remarks: _____

Contractor's Signature: _____

Nasir

Counterpart's Signature: _____

Jimmy

Instt. Rep.'s Signature: _____

Munir Ahmad

16/8/87

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August 23, 1987
SIS 87-RR1-021

The Head
Dyeo Research Institute
Gulshan Kahu
PUNJAB

Subject : Installation of Perkin-Elmer Equipments

Dear Sir:

The above referred equipments will reach your site very soon. These equipments will be inspected and then handed over to you. So please make sure that these equipments are stored in a dust free and dry place. These boxes/cartons should be opened only in the presence of our representative.

In the meantime, we request you to kindly prepare your laboratory for the installation of these equipments. The pre-installation instructions are enclosed herewith.

Kindly inform us as soon as you receive this consignment, so that we can make necessary arrangements for inspection etc.

For any other assistance, please feel free to contact us.

Regards

Yours truly
Zelino (pvt) Limited

Mohammad Sarfraz
Service Coordinator

MARIT

cc - Afzal
for m.c.a.
16/8/87

noted Sir
Afzal
16/8/87

1385/5-86(2)
18/8/87

ZELIN (Private) LIMITED
P.O. Box 7318
A. Haroon/M.A. Jinnah Road
Karachi-3 PAKISTAN
Phone: 725890-94
Cable: ZELTONE
Telex: 25378 ZELIN PK
Also in Lahore, Rawalpindi and Peshawar

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161875



REINSTALLATION REQUIREMENT FOR
MODEL 5100 ATOMIC ABSORPTION SPECTROPHOTOMETER

1. SPACE REQUIREMENT:

- a- The room should be dust free.
- b- The room must be airconditioned with a controlled room temperature between 20-25 degree centigrade.
- c- Vibration free bench close to line power.
- d- Adequate ventilation system to remove the exhausting gases from the instrument. For instruction please find the enclosed leaflet.

2. ELECTRICAL REQUIREMENT:

The power line to the instrument must fulfill the following requirement:

- a- All electrical supply must be within $\pm 10\%$ voltage tolerance of the normal line voltage.
- b- Supply must be stabilized and grounded. The maximum permissible resistance between the ground connection and any of two phases is not more than one ohm.
- c- Each instrument should be connected to a separate 15 amp. line.
- d- The instrument should not be attached to a circuit associated with heavy duty equipment.
- e- There must be atleast four sockets exclusively for the subject instument.

3. POWER REQUIREMENT:

230 volts ± 10 V, 50Hz (10 amp. fuse in line supply or 2 KVA).

4. GAS SUPPLY REQUIREMENT:

- a- Compressed air Suitablity filtered and free of dirt and oil particles is required.
- b- Tank of accetylene 99.8% pure with appropriate pressure regulator (i.e atomic absorption grade accetylene).
- c- Tank of Nitro^uoxide 99.99% pure with appropriate pressure regulator and burner head.

Contd...P/2..

LABORATORY SUPPLIES:

- a- Gases.
- b- Glass weares (i.e pippettes, flask etc.).
- c- Test standards.

PREINSTALLATION REQUIREMENT FOR
GRAPHITE FURNACE HGA-600

- Temperature : 20 + 2 °C with non condensing relative humidity 50 ± 5% .
- 2 Power requirement : Single phase, 230 V ± 10% , 20 amp. current (separete line).
- Gas requirement : Argon -99.995%.
Inlet pressure : 190 Kpa maximum.
Consumption : 1.50 litrs/minutes.
- Coolent (water) : Mains water or filtered industrial water.
Consumption : 2.5 litrs/minutes.

2!

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No. 2187/5-EC

Dt. 30.8.87.

M/S Zelin(Private)Ltd.
P.O.Box 7318
A.Haroon/M.A.Jinnah Road
Karachi-3.

Subject: INSTALLATION OF PERKIN-ELMER EQUIPMENT

Dear Sir,

With reference to your letter No.SSG/87-RRI-221 dated 3.8.87 for the pre-installation instructions and is requested that the space for the installation may be mentioned so that vibration free bench could be made for the instrument.

Regards

Yours sincerely,



DIRECTOR GENERAL AGRICULTURE
RICE RESEARCH INSTITUTE
KALA SHAH KAKU.*Q*

o/c



RICE RESEARCH INSTITUTE

KALA SHAH KAKU - PUNJAB, INDIA

NO. _____
DATE _____

M/S Zelin (Private) Ltd,
P.O. Box No. 731
J. Hanuman/ N. A. Jinnah Road
Karachi-3.

Subject: INSTALLATION OF PERMILLENBERG EQUIPMENT

Dear Sir,

As already requested vide my letter No. 21017-1 dated 30/6/67 the space for installation may be indicated so that a vibration free patch could be made accordingly.

Yours Sincerely,

[Handwritten Signature]
/ DIRECTOR GENERAL ADMINISTRATION
RICE RESEARCH INSTITUTE
KALA SHAH KAKU.

[Handwritten Initials]

4/10/87

October 04, 1987
SSG/87-RR1-349

Director General
Agriculture
Rice Research Institute
Kala Shah Kaku

Subject : Installation of Perkin-Elmer Equipment AAS 5100

Dear Sir:

Reference is made to your letters No.2187/5-8(2) dated 30-8-87 and 2374/5-9(2) dated 20-9-87, subject same as above.

The dimensions for the subject equipment are:

- Width 46 3/4"
- Height 20 3/4"
- Depth 25"

Vibration-free bench may be prepared accordingly.

Sorry for the delay as we were in contact with our Principal to get specifications of this latest version of AAS.

Regards

Yours truly
for Zelin (Pvt.) Limited

Mohammad Sarfraz
Service Coordinator

1703/5-9(2)
9/10/87

Mr. Afzal (soil chem)

pk. note

noted Sir
Sarfraz

9/10/87

ZELIN (Private) LIMITED
P.O. Box 7318
A. Haroon/M.A. Jinnah Road
Karachi-3 PAKISTAN
Phone: 725890-94
Cable: ZELTONE
Telex: 25378 ZELIN PK
Also in Lahore, Rawalpindi and Peshawar

JOINT INSPECTION REPORT OF ATOMIC ABSORPTION SPECTROPHOTOMETER MODEL 5100

We have jointly inspected the Atomic Absorption Spectrophotometer alongwith the accessories. We certified that the equipment is physically O.K. and every part is complete according to the packing list supplied by us /Pakistan Agricultural Research Council stores issue note No.1225-30 dated 26.7.87.

Naved R. Khan
(NAVEED R. KHAN)
Service Engineer
Zelin(Private) Ltd.

M. Afzal 19/1/88.
(MOHAMMAD AFZAL)
Asstt. Research Officer
Rice Research Institute
Kala Shah kaku

Joint Inspection performed on
19/1/88

PAKISTAN AGRICULTURAL RESEARCH COUNCIL

STORES ISSUE NOTE

No. 1225

Date 25 07 67

Issued to:

Rice Research Institute,
Kala Shah Kaku (Code P-7-3)

Charged to:

Received by:

Ref. No. _____
Date _____

S. No/ Items	Code No. Catalog#	DESCRIPTION	Unit	Quantity Demanded	Quantity Issued
VI.1	N500-0349	Printer PR 310	No.	1	1
	N501-0236	RS232 Cable	"	1	1
	0047-2015	Z - Fold paper	"	2	2
	N501-2135	Ribbon PR310 CY.MA.VL.PL Flame &	"	2	2
		Auto Sampler	"	1	1
	N066-0037	AS-51 Auto Sampler	"	2	2
	0047-1422	Probe - ST	"	1	1
	0990-8265	Polv Tubing - 10ft length	"	1	1
	0047-1441	Test Tubes (Pack of 125)	Pack	1	1
	0047-1440	Barzelius Beaker 400 ml	No.	2	2

Remarks (if any) <i>Checked and repaired by Zelin staff. Pbs do not open until Zelin's engineer's visit. Site of installation. Submitted</i>	Prepared by <i>[Signature]</i> 1975	Approved by <i>[Signature]</i> 1975	Received by <i>[Signature]</i>	Posted in	
				Stock Card (S/keeper)	Bin Card (S/keeper)

STORES COPY

SYED Mubashir Zelin

**PAKISTAN AGRICULTURAL RESEARCH COUNCIL
STORES ISSUE NOTE**

No. **1226**

Date		
26	07	67

No. _____

Date		
------	--	--

Issued to:
Rice Research Institute,
Kala Shah Kaku (Code P-7-B)

Charged to: _____

Received by: _____

S. No. / Items	Code No. / Catalogue	DESCRIPTION	Unit	Quantity Demanded	Quantity Issued
VI.1.	0650-0325	NSA - 600	No.	1	1
"	0290-2135	Emendraf floats 10 UL	"	1	1
"	0290-2138	" " " 20 "	"	1	1
"	0290-2140	" " " 50 "	"	1	1
"	0290-2140	Floats Air clear 200 lbs. 650 No. Pack	"	1	1
"	0303-0053	Starer 3 Yone Kit	No.	1	1
"	0303-0091	Air Compressor 220-240V	"	1	1
"	0047-0552	Air Dryer Filter	"	1	1
"	0303-0106	Airtylene Regulator	"	1	1
"	0303-0261	Pressure Regulator	"	1	1

Remarks (if any)	Prepared by	Approved by	Received by	Posted in	
	<i>Umar</i> 6/7/67	<i>[Signature]</i> 6/7/67	<i>Umar</i>	Stock Card	Bin Card
				(S/keeper)	(S/keeper)

STORES COPY

PAKISTAN AGRICULTURAL RESEARCH COUNCIL
STORES ISSUE NOTE

No. 1227
Date: 26 07 87

<3

Ref. No. _____
Date / /

Issued to:
Rice Research Institute,
Kala Shah Kaku (Code P-7-B)

Charged to: _____

Received by: _____

S. No. / Items	Rate No Catalog #	DESCRIPTION	Unit	Quantity Demanded	Quantity Issued	
20	0303-0349	Nitrous Oxide Pressure Regulator	No.	1	1	
		Burner Supplies & Accessories				
21	0040-0277	Nitrous Oxide Burner Head	No.	1	1	
22	0057-2615	Impact Bead	"	2	2	
23	0047-2998	Burner Spare Kit	"	1	1	
24	0097-8255	Poly Tubing Qty 10ft Length	"	1	1	
25	0303-0299	Platinum/Rhodium Webolizer Computer	"	1	1	
		Supplies				
26	N501-0031	Blank Floppy Disk Selection of Larp	"	1	1	
27	N065-1290	Al Aluminium HCL Coded	"	1	1	
Remarks (if any)		Prepared by <i>Ilusul</i> 12/2/87	Approved by <i>[Signature]</i> W.S. 87	Received by <i>Ilusul</i>	Posted in Stock Card Bin Card (S/keeper) (S/keeper)	

STORES COPY

PAKISTAN AGRICULTURAL RESEARCH COUNCIL
STORES ISSUE NOTE

1228

Date 26 07 67

-4-

Re. No.

Issued to:
Rice Research Institute,
Kala Shah Kaku (Code P-7-3)

Charged to:

Date

Received by:

S. No. Items	Catalogue No. Catalogue	DESCRIPTION	Unit	Quantity Demanded	Quantity Issued
28	NO55-1258	7 Barium HCL Coded	"	1	1
29	NO55-1244	3D Cadmium HCL Coded	"	1	1
30	NO55-1293	" " " "	"	1	1
31	NO55-1297	CR Chromium " "	"	1	1
32	NO55-1298	CP Cobalt " "	"	1	1
33	NO55-1299	CG Copper HCL Coded	"	1	1
34	NO55-1299	CE Iron " "	"	1	1
35	NO55-1299	PE Lead " "	"	1	1
36	NO55-1292	MG Magnesium HCL Code	"	1	1
37	NO55-1294	MN Manganese " "	"	1	1

Remarks (if any)	Prepared by	Approved by	Received by	Posted in	
	<i>[Signature]</i> (10/7/67)	<i>[Signature]</i>	<i>[Signature]</i>	Stock Card	Bin Card
				(S/keeper)	(C/keeper)

PARSIAN AGRICULTURAL RESEARCH COUNCIL
STORES ISSUE NOTE

No. 1229
Date: 26 07 87

-5-

Ref. No. _____
Date _____

Issued to:
Rice Research Institute,
Kala Shah Kaku (Code P-7-89)

Charged to: _____

Received by: _____

S. No.	Code Items Catalog #	DESCRIPTION	Unit	Quantity Demanded	Quantity Issued
38	7066-1225	20 Holymbdenium W/L Coded	Hg.	1	1
39	7066-1240	SE Selenium	"	1	1
40	7066-1285	ZN Zinc	"	1	1
		Some Parts			
41	7066-1285	Some Parts			
42	7066-1285	Some Parts			
43	7066-1285	Ribbon Pr 310 CY, MA, YL, BL	"	1	1
44	7066-1285	Blank Floppy Disk	"	1	1
45	7066-1285	Some Parts			

Remarks (Copy)	Prepared by	Approved by	Received by	Posted in	
	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	Stock Card	Bin Card
				(S/keeper)	(S/keeper)

PAKISTAN AGRICULTURAL RESEARCH COUNCIL

STORES ISSUE NOTE

1230

-6-

Date: 25 07 8

Ref. No. _____
Date _____

Issued to:
Rice Research Institute,
Kala Shah Kaku (Code P-7-3)

Charged to:

Received by:

S. No.	Quantity	DESCRIPTION	Unit	Quantity Demanded	Quantity Issued
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21/1/88

January 21, 1988
SSG/88-RRI-521

Director General
Agriculture
Rice Research Institute
Kala Shah Kaku

Subject : Installation of AAS 5100 at your Institute
PARC Contract No. PAK/CMO-391-0489/87-09

Dear Sir:

Please refer to our engineer, Mr. Naveed R. Khan's visit at your Institute on 19 Jan 88 in order to check the readiness of site for the installation of above equipment.

Since the blower and vert assembly have been handed over to you, please take necessary action for its installation at your earliest.

Also the airconditioning of the lab is still required to be done.

We request you to please inform us as soon as all pre-requisites for the installation of ASS-5100 are met, so as to enable us to take further necessary steps in this regard.

5-9 (2)
5-1-88

Regards

Yours truly
for Zelin (Pvt.) Limited

Mohammad Sarfraz

Copy to: Mr. Liaquat Hussain
P.A.R.C.
P.O. Box 1031, G-5/1, Islamabad

Mr. A.M. Ansari

Mr. R.A. Raza / Mr. Naveed R. Khan

*ch. Huzul
for nla.*

*noted Sir
8/2/88*

*for
26/1/88*

ZELIN (Private) LIMITED
P.O. Box 7318
A. Haroon/M.A. Jinnah Road
Karachi-3 PAKISTAN
Phone: 725890-94
Cable: ZELTONE
Telex: 25378 ZELIN PK
Also in Lahore, Rawalpindi and Peshawar

BEST AVAILABLE COPY

RICE RESEARCH INSTITUTE

KALA SHAH KAKU - Punjab, Pakistan

NO. 394/59(e)

DATED 11-2-88



M/S Zelin(Private)Limited
P.O.Box 7318
A.Haroon/M.A.Jinnah Road
KARACHI-3.

Subject: INSTALLATION OF AAS 5100

Dear Sir,

Kindly refer to your letter No.SSG/88-RRI-521 dated 21.1.88 and telegram dated 4.2.88 for the readiness of site for the above equipment. Blower & vent assembly has been installed and your engineer N.R.Khan ^{checked} observed on 7.2.88. Air conditioning of Lab. will be done as soon as possible when ~~we will received~~ ^{is received from} air conditioner ~~from~~ Avub Agricultural Research Institute, Faisalabad under Marf Project.

Yours sincerely,

[Signature] 10/2/88.

ASSISTANT RESEARCH OFFICER
FOR DIRECTOR GENERAL AGRICULTURE
RICE RESEARCH INSTITUTE
KALA SHAH KAKU.*Q*

R/K please show
to worthy D.G.
[Signature]

[Signature]
[Signature]
11/2/88



323
Phone Lhr. 700368

RICE RESEARCH INSTITUTE

KALA SHAH KAKU - Punjab, Pakistan

NO. 735/5-702

DATED 17-3-88

M/S Zelin(Private) Limited,
P.O.Box 7318
A Haroon/M.A. Jinnah Road
Karachi-3.

Subject: INSTALLATION OF PERKINS-ELMER EQUIPMENT AAS-5100

Dear Sir,

Kindly refer your communication dated 2nd March, 1988 addressed to the Director General(Research), Ayub Agricultural Research Institute, Faisalabad and the copies thereof sent to the undersigned and others. It is to inform you that:

1. The gases needed for the operation of the equipment have been procured as per instructions of your Engineer.
2. Air conditioner has arrived at the Institute and the same will be installed within a couple of days.
3. Exhaust hood alongwith Blower and vent have been installed as instructions of your Engineer.

Yours sincerely,

sdi-
DIRECTOR GENERAL AGRICULTURE
RICE RESEARCH INSTITUTE
KALA SHAH KAKU.

No. 736/15-9(2) Dated: 17-3-88

A copy is forwarded to the Director General Agriculture(Research), Ayub Agricultural Research Institute, Faisalabad for favour of his information w/r to his office endorsement No.6639-40/E-6 Tech. dated 8.3.88.



7d-7

NRK/88/119
15th Sept, 88.

Director General,
Rice Research Institute,
Kala Shah Kaku.

SUBJ: INSTALLATION OF AAS5100 AT YOUR PREMISES
UNDER PARC CONTRACT PAK/CMO-391-0489/87-09.

Dear Sir,

During my recent visit to your institute for installation of graphite furnace with the subject machine found the followig:-

- 1) Laboratory air-conditioner not working.
- 2) The wires for electric outlets are furnished but not connected.
- 3) Proper EARTH connection not available.

The above mentioned discrepancies are effecting, the subject machine badly. The computer controller is malfunctioning because of the poor earth connection.

Please take necessary action in order to improve these conditions and inform us after completion, so that we can restart the installation.

Very truly your's
for ZELIN (Pvt) Ltd,

(NAVEED R. KHAN)

1666/5-9(2)
22/9/88

Copy to: Mr. M. Sarfraz
Service Coordinator.

*Ch. H. Afzal
for immediate
order*

22/9/88

*Sir
needful done vide letter
22/9/88*

ZELIN (Private) LIMITED
P. O. Box 435
Shahrah-e-Quaid-e-Azam
Lahore, PAKISTAN
Phone : 54574-324016
Cable : ZELTONE
Telex : 44431 ZELIN PK
Also in Karachi, Rawalpindi and Peshawar

14 November, 1988
SSG/88-RRI-1000

Director General Agriculture
Rice Research Institute
Kalashah Kaku
Pakistan

Subject : Installation of Perkin Elmer Equipment

Dear Sir:

Reference is made to your letter No.2536/5-9(2) dated 1-11-88 on subject.

Please be noted that parts list, under discussion, is not meant for your site. This listing of items was meant for complete consignment received under Purchase Order No.PAK-CMO-391-0489/87-09 for various sites all over Pakistan.

As far as your site is concerned, all required parts for the installation of AAS-5100 have been received at your site as has been shown in the Joint Inspection Report of Atomic Absorption Spectrophotometer Model 5100 and PARC Stores Issue Note Nos. from 1225 to 1230, and that AAS-5100 at your site has already been installed and commissioned on 12 May, 1988..

For your information, these short-shipped items, under discussion, were sent by our Principal to PARC C/o Liaison Officer, US Aid Karachi under AWB No.214-2815-7290 on 29 Sept 87.

Regards

Yours truly
for Zelin (Pvt.) Limited

Mohammad Sarfraz
Service Coordinator

Contd..P/2..

in a letter No.2848/S-3(2) dated 15-12-88 was written to Secretary/MA with a copy to Dr. Amir (Chairman) & DGR (NAR)
Islamabad
M. H. Zafar

Ch. H. Zafar
re discuss.
28/11/88

ZELIN (Private) LIMITED
P.O. Box 7318
A. Haroon/M.A. Jinnah Road
Karachi-3 PAKISTAN
Phone: 725890-94
Cable: ZELTONE
Telex: 26378 ZELIN PK
Also in Lahore, Rawalpindi and Peshawar

SSG/88-RRI-1000
14 November, 1988
Page 2

- Copy to: 1- The Director General
Ayub Agriculture Research Institute
Faisalabad
- 2- Mr. Manzoor Ali
Project Secretary (MART)
P.O.Box 1031, Islamabad
- 3- Mr. Liaquat Hussain
P.A.R.C.
P.O. Box 1031
Sector G-5/1
Islamabad
- 4- Mr. Naveed R. Khan
Zelin - Lahore

O. S. Khan

427
No. 2521 / 13 9(2)
Dated: 14. 11. 88

From

The Director General Agriculture,
Rice Research Institute,
Kala Shah Kaku.

To

Mr. Naveed R. Khan,
Zelin (Private) Limited,
P.O. Box No. 435
Shahrah-e-Quaid-e-Azam,
Lahore.

Subject:-

INSTALLATION OF PERKINELMER EQUIPMENT.

The requirement for the installation of AAS 5400 mentioned in your letter No. NRK/88/119 15th September, 1988 have been completed there fore, kindly start its installation.

H. J. A. I.
DIRECTOR GENERAL AGRICULTURE
RICE RESEARCH INSTITUTE
KALA SHAH KAKU.

c.c.

Mr. M. Sarfraz,
Service Coordinator,
Zelin (Private) Limited,
P.O. Box No. 7318,
A. Haroon/M.A. Jinnah Road,
Karachi-3.

BEST AVAILABLE COPY

SPO. PARC, 091
16 FEBRUARY 1989

Mr. Masood Khan
Energy Specialist
Techno-Consult
Consulting Engineers
37-K/6
PECH Society
Karachi

Subject : Missing Parts - Kala Shah Kaku

Dear Mr. Masood:

Enclosed please find herewith is a copy of telex (Ref. K387/89 dated 12 Feb 89) from US-Aid Karachi, addressed to Mr. Liaquat Hussain, SPO, PARC Islamabad with a copy to us, regarding missing parts, which is self-explanatory.

This is for your information and records.

Best regards

Yours truly,
for Delta (Pvt.) Limited



Mohammad Sarfraz

TLX : K387/89
DATE : 02/12/1989
TO : MR. LIAQUAT HUSSAIN, SPO. PARC/ISLAMABAD
INFO : MR. M. SARFRAZ, ZELIN, KARACHI
: CMO/ISLAMABAD
SUB : PARC SHIPMENTS
REF : MOHAMMAD IDREES, STORE OFFICER, NARC, ISLAMABAD LETTER
TO ZELIN DATED JAN 24, 1989

ONE CARTON OF SPECTROPHOTOMETER PARTS RECEIVED AGAINST AWB NO. 214-0340-9183 (P.O. PAK-CMO-301-0489/37-08/412) ON OCTOBER 19, 1989 AND SIX PARTS DISK MANUAL SETS RECEIVED AGAINST AWB NO. 214-0340-9183 (P.O. PAK/CMO/301-0489/37-14) ON FEBRUARY 02, 1989 SHIPPED TO ISLAMABAD UNDER AWB NO. 214-0340-9183 DATED FEBRUARY 12, 1989.

PLEASE OBTAIN DELIVERY.

END:1730PST/

BEST AVAILABLE COPY

ZELIN PK
3000 AIDK

SECTION "D"
SIND

S I N D

SUMMARY OF SUPPLIES AND UTILIZATION

INSTITUTION	NO. OF EQUPT. SANCTIONED	NO. OF EQUPT. DELIVERED	NO. OF EQUPT. BEING UTILIZED	NO. OF ITEMS NOT BEING UTILIZED	REMARKS
	(1)	(2)	(3)	(4)	(5)
A.R.I., TANDOJAM	* 137 ** 133	* 119 ** 125	57	34	34 Nos. equipment could not be inspected physically.
AG. UNIVERSITY, TANDOJAM	* 219 ** 288	* 255 ** 262	203	41	18 Nos. equipments could not be inspected physically.
R.R.I., DOKRI	* 52 ** 50	* 39 ** 48	17	13	18 Nos. equipments could not be inspected physically.
TOTAL	* 408 ** 471 (Including short supp.)	* 413 ** 435	277	88	70 Nos. equipments could not be inspected physically.

- * (1) SOURCE:- USAID LIST as per Mr. Masood Mahmood's draft report.
 ** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurement Officer (PARC)
 * (2) SOURCE:- Physical inspection and Institute's record
 ** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurement Officer (PARC)
 (3) SOURCE:- Physical inspection
 (4) SOURCE:- Physical inspection
 (5) Items were either transferred to other locations or concerned staff was not available.

BEST AVAILABLE COPY

S I N D

SUMMARY OF MONITORING

1. Out of 413 pieces of equipments supplied, only 277 pieces of equipments are being utilized. However as per the list of "Equipment Delivered" to various provinces given by Mr. Liaquat Hussain, SPO (PARC) to the Techno-Consult on June 8, 1989 the number of equipment delivered to Sindh Province are shown as 435.
2. Following seem to be the major causes of non-utilization of the equipments:
 - a) Non-availability of trained personnel.
 - b) Non-existence of plans for utilization.
 - c) Short supply of operation/maintenance literature on some of the equipments.

RECOMMENDATIONS:

1. PARC should provide assistance in commissioning the equipments since the province does not have trained personnel on the operation of equipment.
2. A Central Repair Cell should be established in the province which could provide repair/maintenance services to all the institutes of the Province.

AGRICULTURAL RESEARCH INSTITUTE, TANDOJAM

P.G.I. No.	Description and Findings	Qty.
3.I.2	<u>RESEARCH MICROSCOPE</u>	2
	<u>DISTRIBUTION:</u> One piece was supplied to Suagrcane Research Institute, Sujawal and could not be inspected physically. It was reported to be lying un-commissioned.	
	The other supplied to pathology department of ARI, Tando Jam. This was found packed, not commissioned yet and stored in poor condition. The inspection team tried to un-pack the microscope when two rats came out of the packing. The rats had damaged the insulation of the electric wiring of the microscope. Rubber seats and foam beds were also damaged.	
	The department has plans to utilize the microscope but it now requires major repairs.	
3.I.3	<u>POLARIMETER</u>	3
	<u>DISTRIBUTION</u>	1
	Sugarcane Research Station, Sujawal (1), Sugarcane Research Station, Larkana (1); These two could not be inspected physically.	
	One supplied to ARI Tando Jam has not been commissioned.	
3.I.4	<u>KJELDHEL MICRO APPARATUS</u>	2
	Both the units have not been commissioned yet.	

P.G.I No.	Description and Findings	Qty.
	As per the contract documents, complete set of distillation unit and the digestion unit was to be supplied but only the digestion unit has been supplied to the Institution.	
	<u>REMARKS:</u> Distillation unit has been short-supplied. As such the department could not utilized the digestion unit alone. However, Mr. Liaquat Hussain, SPO (PARC) informed that the supplier M/s. "PEM SCIENCE CORP." of USA has been contacted who has agreed to send the missing parts.	
3.I.12	<u>MOISTURE & SOIL ACIDITY METER</u>	4
	Four units were supplied. All the four units are stored properly and are being utilized effectively.	
3.I.13	<u>SINGLE PAN, ELECTRONIC ANALYTICAL BALANCE</u>	6
	<u>DISTRIBUTION:</u> One unit was supplied to each Agriculture Research Institute, Dadu; Sugarcane Research Station, Sujawal; and Sugarcane Research Institute, Larkana. These three units could not be inspected physically.	
	Three such units supplied to ARI, Tando Jam, are being effectively utilized.	
3.I.16	<u>FREEZER, CHEST TYPE</u>	2
	Both the Freezers have not been commissioned yet. Both have cracks and crack marks at the sealing edge of the body. Some of the broken pieces were glued on the body.	

P.G.I. No.	Description and Findings	Qty.
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NOTE: Cracks have been observed on all the Freezer bodies supplied to all the provinces.

REMARKS: It appears that the supplier has supplied damaged units since the broken pieces were found glued together.

3.I.22	<u>CONDUCTIVITY METER</u>	2
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As per the contract document, the supply is O.K.

OBSERVATION: Conductivity meters are not being utilized since the test probes were not supplied as part of the equipment. The test probes should have been included in the contract document since probes are essential accessory of the equipment.

REMARKS: The institute was advised to procure the test probes to utilize the conductivity meters.

3.I.24	<u>SHAKER, ORBITAL, LAB-LINE</u>	2
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Two units were supplied. Both units are properly stored and are being effectively utilized.

3.I.25	<u>INCUBATOR, COOLED, B.O.D</u>	3
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DISTRIBUTION: Three pieces were supplied. One supplied to Vegetable Research Station, Mirpurkhas.

Two are lying with ARI, Tando Jam.

P.G.I. No.	Description and Findings	Qty.
	<p><u>TRAINING:</u> The departments require training on the operation/maintenance of incubators. The departments do not have trained personnel for this particular type of equipment.</p> <p><u>SUGGESTION:</u> PARC/NARC should depute one of its Engineers/Technicians, who could help install and operate the equipment. The class room trainings which have been provided in the past have not proved to be effective in producing the required skills in respect of the equipment.</p>	
3.I.26	<p><u>CENTRIFUGE, GENERAL PURPOSE</u></p> <p><u>DISTRIBUTION:</u> Two pieces were supplied. One supplied to Vegetable Research Institute, Mirpur Khas, but could not be inspected physically. The other unit is stored properly at ARI Tando Jam, and is being effectively used.</p>	2
3.II.1	<p><u>SEED GERMINATOR</u></p> <p><u>DISTRIBUTION:</u> Seven pieces were supplied. One unit each has been supplied to: Agriculture Research Station, Dadu; Sugarcane Research Station, Sujawal; and Vegetable Research Station, Mirpur Khas. These three could not be inspected physically. Rest of the four are lying with various departments at ARI.</p>	7

P.G.I. No.	Description and Findings	Qty.
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OBSERVATION: Seed germinators are not being effectively utilized since staff has not been trained on this equipment.

SUGGESTION: NARC/PARC should send some of their Engineers/Technicians to train the Lab. Staff on installation/operation of the equipment.

3.II.4

TRACTOR (DIESEL ENGINE)

4

DISTRIBUTION: Four pieces were supplied. One tractor has been supplied to Sind Horticultural Research Institute, Mirpur Khas. Three units are lying at ARI.

OBSERVATION: The department is receiving complaint of excessive engine oil consumption. The complaint could not be verified practically.

SUGGESTION: The supplier (Ford Motor Co.) offers one year's complete warranty for the tractors supplied provided that the two initial free services are performed by their authorized dealer/Agent within specified time. The Institute should contact the local dealer of Ford Motor Co., who is liable to provide free repair/maintenance services if the warranty is still valid. The Institute Staff was not aware of the fact if the tractor warranty is still valid.

P.G.I. No.	Description and Findings	Qty.
3.II.5	<u>SPRAYER, TRACTOR MOUNTED</u>	1

The unit was supplied to Entomology Department of ARI. The equipment has not been commissioned yet since following items were short-supplied, as per the Assembling Instruction Manual.

Ref:	Part No.	Description	Quantity
1	B-92 NY	Nylon ell. 3/4" Male rpt x 3/4 barb.	01
6	B-38 NY	Nylon ell. Hose Insert, 1" Male rpt x 3/4 barb.	02
8	RB-10-34	Nylon Reducing Bushing, 1 - 3/4" NY	02
	B-52	Hose Clamp 1/2" Steel	02
	8120 NY-406 TD	Double Hose Shank Nozzle, Nylon	12
	No. 111	Clamp Sub-Assemblies for Vari-Spacing Nozzles Consist of Upper and Lower Clamp and Nut	12
		Pipe Pieces	12

Department has already informed the D.G. Agri Research, Sind and the PARC authorities about the short-supplied items but still awaits their response.

The department further require help in commissioning/ assembling of the equipment and requires practical demonstration on the proper utilization of the equipment.

P.G.I. No.	Description and Findings	Qty.
3.II.8	<u>FIELD BALANCE</u> It is stored properly and is utilized effectively.	1
3.II.11	<u>SEED CLEANER AND GRADER</u> <u>DISTRIBUTION:</u> Two pieces were supplied. One supplied to Vegetable Research Station, Mirpur Khas, but could not be inspected physically. It has been reported that the equipment is working satisfactorily. The other one is being utilized effectively, at ARI.	2
3.II.19	<u>TRACTOR DIESEL ENGINE</u> The equipment is properly maintained and working satisfactorily at ARI.	1
3.II.20	<u>PORTABLE HUSKER-SHELLER</u> The equipment has been stored properly. It has since been commissioned and found in perfect working order, but at present it is not being used.	1
3.II.21	<u>AUTOMATIC COTTON PLANTER</u> Being utilized effectively.	1
3.II.22	<u>ORCHARD SPARYER:</u> Two pieces were supplied, commissioned and being utilized effectively.	1
3.III.7	<u>FIBER LENGTH MEASURING MACHINE</u> Commissioned and stored properly. Being utilized effectively.	1

P.G.I. No.	Description and Findings	Qty.
3.III.20	<u>CANE SHREDDER</u> One supplied each to Sugarcane Research Station, Sujawal; and Sugarcane Research Station, Larkana. One is being effectively utilized at ARI.	3
3.III.22	<u>PRESSLY STRENGTH TESTER</u> The equipment has been stored properly but is not being utilized. The department complains that the equipment can not be used without weighing/measuring scale, which has not been supplied with the equipment. <u>OBSERVATION:</u> The store supplied is in order as per the contract document since, Weighing/measuring scale was not included in the order. But, the operation manual shows that weighing scale is an accessory of the equipment. <u>REMARKS:</u> Supply is O.K. as per the contract document. But the weighing scale is an important accessory and should have been included in the order.	1
3.III.28	<u>DOCKAGE TESTER</u> Being utilized effectively at ARI.	1
3.IV.1	<u>SLIDE PROJECTOR</u> Two pieces were supplied. These are being utilized effectively.	2

P.G.I. No.	Description and Findings	Qty.
3.IV.2	<u>OVERHEAD PROJECTOR</u> <u>DISTRIBUTION:</u> Three pieces were supplied. One No. supplied to Sind Horticulture Research Institute, Mirpur Khas; Could not be inspected physically, but it has been reported to be working satisfactorily. Other two are lying with ARI and are being utilized effectively.	3
3.IV.3	<u>PHOTOCOPIER</u> One unit was supplied to Sugarcane Research Station, Sujawal, but could not be inspected physically. Other four are lying with ARI out of which two are being utilized and the remaining two are stored, since accessories (like toner,) for this particular type of the U.S.A. origin are not available in the market.	5
3.V.4	<u>DUPLICATING MACHINE (MIMEOGRAPH)</u> <u>DISTRIBUTION:</u> Three pieces were supplied. One unit supplied to Sugarcane Research Station, Larkana, but could not be inspected physically. The other two are working satisfactorily at ARI.	3
3.V.5	<u>SCANNING MACHINE</u> Machines are stored properly and are not being utilized. The department does not have any utility for these machines, in the presence of duplicating machines and photocopiers, and also has no plans to use the scanning machines. The department, as such, is ready to exchange the machines with some other needed equipments.	3

P.G.I. No.	Description and Findings	Qty.
3.V.6	<u>ELECTRIC TYPEWRITERS</u>	6

Six electric typewriters were supplied to ARI out of which only one was supplied with font ball Element, and is being fully utilized. The remaining five typewriters which were supplied without the font ball element are not in use.

REMARKS: Font ball element of the five typewriters were short supplied. However, it is not a very costly item and can be procured locally.

3.V.7	<u>CALCULATOR, STATISTICS (4)</u>	4
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Four pieces were supplied. Two of the calculators are working satisfactorily and the rest are found defective. It was reported that the defective calculators were received as such not in working order. However, the department of Statistics does not find the calculators of any use.

OBSERVATION: As per the contract documents, TEXAS INSTRUMENT statistics calculators, were to be supplied but ordinary calculators were delivered which can perform only four typical arithmetic functions and no statistical functions are provided, although the brand is the same. Mr. Liaquat Hussain, SPO (PARC) informed during his visit to the office of Techno-Consult, Karachi on

P.G.I. No.	Description and Findings	Qty.
	<p>June 8, 1989 that the supplier of the calculators has been contacted who have agreed to replace these calculators with scientific functions.</p> <p><u>REMARKS:</u> Calculators of proper specifications were not supplied by the contractors.</p>	
3.VIII.2	<p><u>CAMERA (35 MM) WITH CLOSE-UP LENSES</u></p> <p><u>DISTRIBUTION:</u> Three pieces were supplied. One of the Cameras supplied to Vegetable Research Station, Mirpur Khas, could not be inspected physically; but it is reported to be working satisfactorily. The remaining two pieces are being utilized effectively at ARI.</p>	3
3.VIII.4	<p><u>OVEN, DRYING FORCED CONVECTION</u></p> <p><u>DISTRIBUTION:</u> Two peices supplied. One of the ovens supplied to Sugarcane Research Station, Larkana; could not be inspected physically. The other one is stored properly and is not being utilized at ARI.</p> <p><u>OBSERVATION:</u> The oven supplied as per the contract document. It is of a very small size and can be used for experimental purposes since the oven can handle only one sample at a time. The department requires an oven of a large size with forced convection arrangements as such the Oven is not being utilized effectively.</p>	2

P.G.I. No.	Description and Findings	Qty.
3.VIII.6	<u>AUTOCLAVE STERILIZER</u> It is being utilized properly at ARI.	1
3.VIII.15	<u>MICRONAIRE</u> Two pieces were supplied. Both the micronaires are being properly utilized at ARI.	2
3.VIII.22	<u>COLONY COUNTER</u> One peice was supplied. It is stored properly and is being utilized satisfactorily.	1
3.VIII.23	<u>REFRIGERATOR, UP-RIGHT</u> One piece was given to Sugarcane Research Institute, Larkana. Three pieces were inspected and found in perfect working order at ARI.	4
3.VIII.24	<u>REFRACTOMETER BRIX, HAND HELD</u> Five pieces were supplied. One stored properly and is being utilized at ARI. Rest of the four pieces have been distributed among various research stations and could not be inspected physically.	5
3.IX.13	<u>SOIL AUGER</u> Six pieces were supplied. All of these are stored properly and are being utilized when required.	6
3.X.1	<u>STILL WATER MEGAPURE</u> One was given to Vegetable Research Station, Mirpur Khas and two are installed at ARI out of which one is not being utilized at the moment.	3

P.G.I. No.	Description and Findings	Qty.
3.X.2	<u>MILL, CYCLON SAMPLE</u> One piece was supplied to Sind Horticulture Research Institute, Mirpur Khas. The other one is working satisfactorily at ARI.	2
3.X.5	<u>SEALER PLASTIC BAGS</u> Installed properly and is working satisfactorily at ARI.	1
3.X.7	<u>GROWTH CHAMBER</u> The store is supplied to Sugarcane Research Institute, Larkana, and is reported to be stored properly but is not being utilized since Laboratory Staff can not install/operate it. Training in respect of the equipment is required. <u>SUGGESTION:</u> NARC/PARC should send technicians who could help install the equipment and train the lab. staff on operation/maintenance techniques.	1
3.X.8	<u>SOIL STERILIZER</u> It is stored properly but is not being utilized. Its utilization has been planned.	1
3.X.9	<u>SEED PROPAGATOR</u> Lab. conditions are O.K. It is installed properly and will be utilized when required.	1

P.G.I. No.	Description and Findings	Qty.
3.X.12	<u>CONDUCTIVITY BRIDGE</u> Lab. conditions are O.K. It is installed properly but is not being utilized since applications probes are not available in the local market.	1
3.X.13	<u>MUFFLE FURNACE</u> Lab. conditions are O.K. It is installed properly and is being utilized.	1
3.X.14	<u>PLANT GROWTH CHAMBER</u> One supplied to Sind Horticulture Research Institute, Mirpur Khas which is reported to be un-commissioned. The other piece is stored at ARI and is not commissioned so far. <u>REMARKS:</u> The department requires help in the installation and training on the operation of the equipment. <u>SUGGESTION:</u> NARC/PARC should send a technician to help install and train the lab. staff.	2
3.II.15	<u>PRIME HEAVY DUTY DISC HARROW</u> It is properly installed and utilized at ARI.	1

COMPLAINT/COMMENTS SHEETS

A.R.I., TANDO JAM

COMPLAINT/COMMENTS SHEET NO. 01-5

Institution: Ag. Univ. Tando - Jam Location: Plant Breeding & Gen. Date Insp. 12/03/88

P.G.L. No. 3. I. 19 Description: Hood Laminar Flow Qty: 01

Supplier: Bio-Safe Corp. Local Rep: _____

Trade Manuf. _____ Origin: U.S.A.

Nature of Complaint: Manual Missing - Can not be utilized w/o operation Manual so not being used at the moment.

Action Taken: Two letters were written to the supplier in April 1988 but no response yet.

Observation: The dept. is enthusiastic for utilizing the eqpt. but since the operation Manual is missing, eqpt. cant be used.

Remarks: _____

Contractor's Signature: Asad
Counterpart's Signature: Asad
Instt. Rep.'s Signature: APM - Ali

COMPLAINT/COMMENTS SHEET NO. 02-5

Institution: Ag. Univ., Tando-Jam Location _____ Date Insp. 12/02/98

P.C.L. No. 3-I.21 Description: Electrophoresis kit Qty: 01

Supplier: _____ Local Rep: _____

Brand/Model: _____ Condition: _____

Remarks/Complaint: As per the contract, the supply is o.k. but the dept. is not utilizing the eqpt. since the Electrophoresis power supply eqpt. is not supplied.

Action Taken: _____

Observation: Dept. feels that the particular eqpt. is not of much utilization for the dept., in-line of this equipment, dept. requires an ~~an~~ electrophoresis kit of proper specifications

Contractor's Signature: Nabood

Counterpart's Signature: Amir

Institution Rep.'s Signature: APM Shikhi

COMPLAINT/COMMENTS SHEET NO. 03-8

Institution: Ag. Univ., Tando Jam Location: Horticulture Date Insp.: 12/03/88

P.G.L.No. 3. I. 18 Description: Deep Freezer Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The freezer found damaged when un-packed. The sealing edges of the freezer is fractured from several points.

Action Taken: _____

Observation: ~~Looks like the fractures look like~~
The fractures can apparently be attributed to mis-handling during shipment.

Remarks: Insurance claim should be lodged.

Contractor's Signature:	<u>Natool</u>
Counterpart's Signature:	<u>Juris</u>
Instr. Rep.'s Signature:	<u>Muskar</u> 31/12/88

COMPLAINT/COMMENTS SHEET NO. 04-5

Institution: Ag. Univ. Tando Jan Location: _____ Date Insp. 04/Dec/88

P.G.L.No. 3. III. 31 Description: AA Spectrophotometer Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. PERKIN-ELMER Origin: U.S.A.

Nature of Complaint: (i) Furnace not working: certain parts are reported to be replaced by the supplier's local Rep.

(ii) N₂O burner head found without inlet lock pin at the time of installation. The Supplier's local Rep.'s report

Action Taken: is enclosed.

Observation: Please Refer attached sheet.

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature] 4/12/88



PEM SCIENCE CORPORATION

385 MARTLING AVENUE
TARRYTOWN, N.Y. 10591
(914) 631-8088
TELEX 173935 PEM UT

July 29th, 1988

Director (Finance)
Sind Agriculture University,
TANDOJAM / PAKISTAN

Dear Sirs,

Re: US-Aid Mart Project (Supplies)

Regarding installation of equipments received by your institute/department under MART PROJECT, we are making arrangements for the visit of Service Engineers to finalise the installations.

We remain,

PEM SCIENCE CORPORATION

c.c. SPO, PARC, Islamabad.

✓ Chairman, Department of Agriculture Chemistry
& Soil Sciences, Sind Agriculture University,
Tandojam.

Dr. Kazi Inamullah } Kindly note +
Dr. C.H. Meman } get the inst- installed

[Handwritten signature]
9/5/88

AA- 5/100
257
9/5/88

BILLING NAME AND ADDRESS	
[Handwritten Name]	
[Handwritten Address: ... University]	
[Handwritten Address: ... Pakistan]	
LOCATION OF INSTRUMENT If other than above	

PERKIN-ELMER

FIELD SERVICE REPORT

NORWALK, CONNECTICUT

SERVICE REPORT NUMBER	R 6583
-----------------------	--------

CODE	AUDIT	DEPT.	OFFICE	CLOCK NO.
51		M7	M7	16733

CUSTOMER PURCHASE ORDER NO.

PARTS USED					SPECIAL BILLING INSTRUCTIONS
QTY	PART NUMBER	DESCRIPTION	EXCH	VISIT OFC	CODE 18 & 19 APPROVALS
		Lab gets progressively not			
		... is not			
		... proper			
		... hand			7700
		... interlock			PR310

PROD CODE	MODEL CODE	PE CONTRACT
110	5100	

INSTRUMENT SERIAL NO.
124522

COMPLETE	DATE VISITED	RESPONSE TIME	CALL BACK
Y	12/17/68		

ACTUAL	BILLABLE
42 HRS	LABOR HOURS 340
12 HRS	TRAVEL HRS/ZONE 375
VISIT NO.	CONTRACT 360
ZONE CODE	FLAT CHG. 370
	MISC. CHG. 390
TAX BACKLOG	TAX CODE
00	

DESCRIPTION OF WORK PERFORMED	ADD'L. PARTS REQ'D.
	QTY PART NUMBER
1. Installed 5100 with PR310.	
2. Problem with flame ignition -	
... by bypassing ground wire	
to ... relay.	
3. 7700 does not print on PR310.	
Edited ... file and reconfigured	
... PR310 - Problem solved.	
... training performed by	
... Flame technique - Cu	
... with Hand too. No commercial	
... PURCHASE suggested.	
	PE SERVICE ENGINEER
	N. Sadele

SERVICE REASONS AREA	PROBLEM CAUSE	INCOMPL. REASON	PRIMARY USE	CODE 1
----------------------	---------------	-----------------	-------------	--------

PERSON CONTACTED/TELEPHONE NO.
Dr. Kazi Sultan Memon
CUSTOMER SIGNATURE
[Handwritten Signature]

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PA-5100

COMPLAINT/COMMENTS SHEET NO. 05-5

Institution Ag. Univ., Tando Jam Location Soil Science Date Insp. 4/12/88

P.G.L.No. 3. I. 04 Description: Micro Apparatus Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The contract document specifically mentions that both distillation unit and the digestion unit were to be provided but only the digestion unit is supplied to the Instt.

Action Taken: _____

Observation: ~~Supply of~~ The digestion unit is being effectively utilized. Deptt. requires the distillation unit.

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature] 4/12/88

COMPLAINT/COMMENTS SHEET NO. 07-5

Instt. Ag. Univ., Tando Jam Location Entomology Date Insp. 12/04/88

P.G.I.No. 3.I.25 Description: Incubator, B.O.D Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. SHEL - LAB Origin: U.S.A.

Nature of Complaint: The tempt. indicator (Digital) does not display the reading. The display system has been working for a short period after installation.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Ins. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 08-S

Institution: Ag. Univ., Tando Jam Location: Pathology Date Insp.: 12/04/88

P.G.I. No. 3. I. 11 Description: _____ Qty: _____

Supplier: _____ Local Rep: _____

Brand/Manuf. PELOUZE Origin: U.S.A.

Nature of Complaint: _____

Action Taken: _____

Observation: _____

Remarks: The balance has a sticker fixed on dial clearly mentioning "NOT LEGAL FOR SALE"

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 09-5

Institution: Ag. Univ, Tando Jam Location: Plant Protection Date Insp: 4/12/84

P.G.I.No. 3. VIII. 05 Description: Stereoscopic Zoom Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The microscope is supplied without eye-pieces, so can not be utilized. Hold clips were also missing when un-packed.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature:

Kasood.

Counterpart's Signature:

Amir

Institution's Rep.'s Signature:

M. B. Khan

COMPLAINT/COMMENTS SHEET NO. 10-S

Institution: Ag. university Location: Plant Pathology Insp. _____

P.G.L.No. 3-1. 25 Description: _____ Qty: 1

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

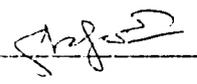
Nature of Complaint: When turned on, the temperature of cooled incubator steadily rises beyond 50°C, then the incubator was turned off. Tried many times, same observation.

Action Taken: Not recorded

Observation: Uncontrolled temperature.

Remarks: _____

Contractor's Signature: 

Counterpart's Signature: 

Institution Representative's Signature: _____

COMPLAINT/COMMENTS SHEET NO. 11-5

Institution: Ag. Univ, Tando Jan Location: Plant Pathology Date Insp: 12/04/88

P.G.I.No. 3.I.28 Description: Fraction Collector Qty: 01

Supplier: FISHER Local Rep: _____

Brand/Manuf. Fisher Sc. Co. Origin: U.S.A

Nature of Complaint: Operation Manual was missing when unpacked. Eqpt. could not be utilized w/o the Op: Manual.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Nasool.

Counterpart's Signature: Amir

Institution's Representative's Signature: M. Mahmood

COMPLAINT/COMMENTS SHEET NO. 12 - S

Institution Ag. Univ., Tando Jam Location LST Date Insp. 05/11/88

P.G.L.No. 3.3.07 Description: Fiber length measuring Qty: 01
Tablet

Supplier: _____ Local Re: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: As per the contract document, a complete set of
Fiber length measuring D/c was to be supplied, Instead only
03 Nos accessories viz: 532 Bale Tag Selector, 533 Bale Tag
Rack & 67 Swinging Automatic stapler has been supplied.

Action Taken: Rest of the items have not been
supplied.

(i) USAID Team comprising of Dr. Saeed & Dr. Nissley were
informed (ii) Many letters have been written to RAAC

Observation: & USAID.

Remarks: _____

Contractor's Signature:	<u>[Signature]</u>
Counterpart's Signature:	<u>[Signature]</u> <u>Ch. L. S. M</u> <u>Dept.</u>
Institution's Rep.'s Signature:	<u>[Signature]</u>

COMPLAINT/COMMENTS SHEET NO. 13-S

Institution: Ag. Univ., Tando Jam Location: Animal Nutrition Date of Insp.: 12/05/88

P.G.L.No. 3. I. 04 Description: _____ Qty: _____

Supplier: _____ Local P. No.: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: Complete Micro Apparatus (including both digestion & distillation unit) was to be supplied as per the contract document. Instead, only the digestion unit was supplied.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Masud
Counterpart's Signature: Chaudhry
Institution's Representative's Signature: Chaudhry

COMPLAINT/COMMENTS SHEET NO. 14

Instit. Aj. Univ. Tando Jam Location Anatomy & Histology Date Insp. 12/05/88

P.G.L.No. 3. VIII . 13 Description: Mic. Knife Sharpener Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: The equipment is not working, since the time of installation (The dept. reports that the eqpt. has some electrical/electronic fault.)

Action Taken: Deptt. Technician tried to rectify the fault but could not manage it.

Observation: _____

Remarks: _____

Contractor's Signature: <u>Nasir</u>	
Counterpart's Signature: <u>[Signature]</u>	
Instit. Rep.'s Signature: <u>M. S. Panderi</u>	

(DR. M. YANJAD PANDERI)
 Associate prof & chairman
 Deptt. of Anatomy & Histology
 S. A. U. Tandojam 150

COMPLAINT/COMMENTS SHEET NO. 14-S

Instt. Aj. Univ., Tando Jam Location Dairy Tech. Date Insp. 05/12/82

P.G.L.No. 3 VII-02 Description: JTLR-Centrifuge Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. BECKMAN Origin: U.S.A.

Nature of Complaint: The Centrifuge Unit does not work -

Action Taken: NIL -

Observation: Could not be observed since power supply was ~~also~~ not available.

Remarks: _____

Contractor's Signature: Katood

Counterpart's Signature: Amis

Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 15-5

Institution: Ag. Univ Tando Jan Location: Dairy Tech. Date Insp: 12/05/88

P.G.L.No. 3. 1. 04 Description: Kjeldhal Micro Ap. Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: _____

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: _____

Kasool

Counterpart's Signature: _____

Amis

Institution's Representative Signature: _____

H. J. Jai

COMPLAINT/COMMENTS SHEET NO. 16-S

Institution: Ag. Univ., Tando Jam Location: Dairy Tech. Date Insp.: 12/05/88

P.G.L.No. 3.1.18 Description: Friger, Chest Type Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Cracks on the body. Particularly the chest top (Sealing Edge) has got many cracks: very similar complaint has been recorded on sheet # 3-S

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Instt. Rep.'s Signature: [Signature]

SSG/89-PARC-105
26 February 1989

Registered A/D

Mr. M. Idrees
Stores Officer
Pakistan Agricultural Research Centre
National Agricultural Research Centre
P.O. National Institute of Health
Islamabad

Subject : Transformer TR2 P/N BV596 for HGA 600 of AAS-5100
Sind Agriculture University - Tandojam
P.O. No. PAR-CMD-391-0489/87-09

Dear Mr. Idrees:

Please be informed that at the time of conversion of HGA-600 from 60 to 50 Hz, at Sind Agriculture University Tandojam, subject transformer found defective.

Order was immediately placed for its free of charge under-warranty replacement. Our Principal, at West Germany, has sent subject part.

Following are shipping details:

AWB : 214-7115-7110
Flight : PK 724 - 28 Jan 89
To : Pakistan Agricultural Research Center
C/o U.S. Aid
P.O. Box 1908
Islamabad - Pakistan

Please instruct concerned personnel for its early clearance from customs and forward it to Sind Agriculture University, Tandojam, under estimation to us so that we may schedule our engineer for its installation and commissioning of HGA-600.

Best regards

Yours faithfully,
C. S. P. (Pvt.) Limited

M. S. Khan

Contd...P.O...

ZELL (Private) LIMITED
P.O. Box 7315
A. Hassan/M.A. Jinnah Road
Karachi 3 PAKISTAN
Phone: 725641-94
Cable: ZELL094
Telex: 25370 ZELL094
Agents: Lahore, Faisalabad and Peshawar

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AGRICULTURAL UNIVERSITY, TANDOJAM

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
3.I.1	<u>FLAME PHOTOMETER</u> Both Flame Photometers are stored properly. Flame photometers are propane-fuel operated and require compressed air (which is not available at the moment), as such the department is not in a position to commission the equipment. The department has plans to procure propane-gas cylinders and a small capacity compressor in the near future.	02
3.I.2	<u>MICROSCOPE RESEARCH</u> These were distributed among various departments. There are no dust proofing arrangements in the Agronomy lab. and equipments are kept in poor condition. All the six microscopes are properly installed and utilized.	6
3.I.3	<u>POLARIMETER</u> These are properly maintained and utilized.	2
3.I.4	<u>KJELDEHL MICRO APPARATUS</u> As per the contract document, complete kjeldehl micro-apparatus, consisting of distillation and digestion units was to be supplied, whereas only the digestion units have been supplied to the university. However, Mr. Liaquat Hussain, SPO (PARC) informed during his visit to the office of Techno-Consult, Karachi on June	3

P.G.I. No.	Description and Findings	Qty.
	8, 1989 that the supplier M/s. "PEM SCIENCE CORP." has been contacted who has agreed to send the missing parts.	
	<u>OBSERVATION:</u> The digestion unit is being utilized in the Soil Science Department where an old type of distillation unit is already installed. In the other two departments digestion unit is stored properly but not being utilized.	
	<u>REMARKS:</u> Distillation unit short supplied.	
3.I.5	<u>DIGITAL CHLORIDOMETER</u>	1
	Lab conditions are satisfactory but equipment is not being utilized yet. The department has plan to utilize the equipment in future.	
3.I.9	<u>EXTRACTION APPARATUS MULTI UNIT</u>	3
	Lab conditions are satisfactory. Equipment is being utilized.	
3.I.10	<u>INSTRUMENT REPAIR KIT</u>	1
	It was found in good condition and is being utilized.	
3.I.11	<u>BALANCE SPRING (DIAL TYPE)</u>	1
	It is stored properly but not utilized. The department does not require the balance which is supplied.	

P.G.I. No.	Description and Findings	Qty.
	<p><u>OBSERVATION:</u> As per the contract documents, SEEBURO brand, spring dial type balance was to be supplied. Instead, a PELOUZE brand, ordinary type, hanging, bag-weighing balance has been supplied which can not be utilized for precision application. A sticker is fixed on the instrument mentioning "NOT LEGAL FOR SALE".</p> <p><u>REMARKS:</u> The balance supplied is not as per the contract documents.</p>	
3.I.12	<p><u>MOISTURE METER (SOIL ACIDITY)</u></p> <p>These are stored properly and are being effectively utilized.</p>	2
3.I.13	<p><u>BALANCE, ELECTRONIC, ANALYTICAL, SINGLE PAN</u></p> <p>Out of the seven pieces supplied, five were checked physically and found properly maintained and are operational.</p>	7
3.I.14	<p><u>AUTOMATIC LEAF AREA METER</u></p> <p>Poor lab conditions. The Leaf Area Meter supplied is as per specifications of the contract document, and is being utilized. But the department is not satisfied with the instrument since it is not an automatic one.</p>	1
3.I.15	<p><u>SIEVE SHAKER RO-TAP TESTING</u></p> <p>One of the shakers was supplied to the Faculty of Agriculture Engineering. It is stored properly and is being utilized. The other one was supplied to the department</p>	2

P.G.I. No.	Description and Findings	Qty.
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simple, the department is hesitant to install/operate it without operation manual.

OBSERVATION: Same Laminar Hoods are supplied to other institutes in different provinces and all of them were supplied without operation manuals. The department of Plant Breeding and Genetics has written letters to the suppliers directly, but without any response. Other provinces/institute have also written similar letters to the suppliers but no body has even received any acknowledgment from the manufacturer whose address is printed on a decal fixed on the equipment.

REMARKS: Similar equipment has been installed and is being effectively utilized at AART, Faisalabad. PARC should contact AARI to send some technician to help install the equipment and train the staff at other institutes.

3. I. 21	<u>ELECTROPHORESIS KIT</u>	1
	The equipment is stored properly but not being utilized. As per the contract document, supply is O.K. The electrophoresis Power Supply Unit is required to make the kit operate but it was not included in the package.	
3. I. 22	<u>CONDUCTIVITY METER</u>	1
	It is stored properly but not utilized yet. It was unpacked and items were checked against the contract. Supply is as per contract document.	

P.G.I. No.	Description and Findings	Qty.
3.I.24	<u>SHAKER, ORBITAL, LAB-LINE 3598</u> Lab. conditions are O.K. Both are being utilized effectively.	2
3.I.25	<u>INCUBATOR, COOLED, B.O.D</u> <u>ENTOMOLOGY DEPARTMENT</u> The digital temperature display system does not work since the time of installation. Therefore the equipment is not being utilized. Lab conditions are O.K.	3 1
	<u>PLANT PATHOLOGY DEPARTMENT</u> The temperature controller or the thermostate is not functioning as the incubator temperature rises beyond 50 deg C, as such the equipment is not being utilized.	1
	<u>SUGGESTION:</u> In both of the above cases, the problem seems to be with thermocoup' and/or temperature control circuit which can easily be rectified. NARC should send one of its technicians to repair the above incubators.	
3.I.26	<u>CENTRIFUGE, GENERAL PURPOSE</u> As per the contract document, the equipment supplied is in accordance with the specifications but the departments of Entomology and Plant Protection do not require a simple centrifuge. They actually require refrigerated centrifuge with higher r.p.ms and these centrifuges are not suitable for them.	3

P.G. No.	Description and Findings	Qty.
	<u>SUGGESTION:</u> PARC should shift these centrifuges to some other institute where this particular type of equipment could be utilized.	
3.1.27	<u>HUMIDITY INDICATOR</u> It is installed and maintained properly and is being utilized effectively.	1
3.1.28	<u>FRACTION COLLECTOR</u> Instruction/operational Manual is missing. Equipment is stored properly. The department is reluctant to install/operate these without manual. <u>SUGGESTION:</u> PARC should contact the supplier for supply of the manual.	1
3.II.1	<u>SEED GERMINATOR</u> Lab. conditions are O.K. The equipment has been commissioned but is not being utilized.	1
3.II.2	<u>LABORATORY MILL STEIN</u> <u>AGRONOMY DEPARTMENT:</u> There is no protection against dust in the lab. Equipment was poorly maintained. The department reported that when it was installed and turned on for first time, excessive noise and vibration observed. The department tried to rectify the defects but failed. The equipment is not being utilized.	2 1

P.G. No.	Description and Findings	Qty.
	<u>OBSERVATION:</u> Equipment was found to be too noisy; bearings/bushing look defective. NARC/PARC should send some technician for repair/service of the equipment.	
	<u>PLANT BREEDING & GENETICS DEPARTMENT</u>	1
	Lab. conditions are O.K. Equipment is being utilized.	
3.II.4	<u>TRACTOR: DIESEL ENGINE</u>	2
	Ford model 6610, 72 H.P. tractors were supplied to Agriculture University. One of the tractors is working satisfactorily.	
	The other one is not working since spare parts are not available locally.	
	<u>SUGGESTION:</u> Ford tractor Model 6610 is not common in Pakistan market but Ford's local dealer M/s. Allied Tractors Limited, D-168, S.I.T.E, Karachi maintain inventory of spares for all the models. University's Transport Officer was provided with the address & Telephone No. of Ford's local dealer and was advised to contact them in this respect.	
3.II.5	<u>SPRAYER TRACTOR MOUNTED</u>	1
	Reported to be working satisfactorily. Could not be inspected physically since concerned person was not available.	

P.G.I. No.	Description and Findings	Qty.
3.II.8	<u>FIELD BALANCE</u> These are properly maintained and working satisfactorily.	2
3.II.11	<u>CLEANER & GRADER</u> Could not be inspected physically since the concerned person was not available. It was reported that the equipment has not been commissioned for want of an electric motor which will be fitted soon. Department has plans to utilize the equipment in the near future.	1
3.II.13	<u>ROTAVATOR, HEAVY DUTY</u> No information could be gathered on this equipment. Since the concerned person of the Faculty of Agriculture Engineering was not available. The Dean of the Faculty of Agriculture Engineering, Dr. Moghal was also not available. Chairman, Department of Irrigation & Drainage, Dr. Imam Bux Ondarh was contacted but he could not locate the equipment.	1
3.II.14	<u>PLOUGH, MOLD BOLD TYPE</u> No information could be gathered on this equipment. Since the concerned person of the Faculty of Agriculture Engineering was not available. The Dean of the Faculty of Agriculture Engineering, Dr. Moghal was also not available. Chairman, Department of Irrigation & Drainage, Dr. Imam Bux Ondarh was contacted but he could not locate the equipment.	1

P.G.I. No.	Description and Findings	Qty.
3.II.15	<u>CULTIVATOR FIELD TYPE</u> No information could be gathered on this equipment. Since the concerned person of the Faculty of Agriculture Engineering was not available. The Dean of the Faculty of Agriculture Engineering, Dr. Moghal was also not available. Chairman, Department of Irrigation & Drainage, Dr. Imam Bux Ondarh was contacted but he could not locate the equipment.	1
3.III.1	<u>PHYSIOLOGICAL RECORDER (R/1) 4 CHANNEL</u> Lab. conditions are O.K. The equipment has been installed & commissioned properly but not being utilized. Lab. staff has not been trained on operation of the equipment. <u>SUGGESTION:</u> NARC/PARC should send some technician who could train the lab. staff on the operation/maintenance of the equipment.	1
3.III.2	<u>MICROSCOPE, PROJECTION, BINOCULAR</u> These are well maintained and satisfactorily utilized.	3
3.III.3	<u>POLYGRAPH MODEL 1-7</u> The equipment is well maintained and being utilized. The department requires some accessories to utilize the equipment for gas analysis. The department intends to utilize the equipment even more effectively.	1

P.G.I. No.	Description and Findings	Qty.
3.III.4	<u>ORGAN BATH (ISOLATED)</u> The equipment is maintained and being utilized properly.	1
3.III.6	<u>VETERINARY ANESTHESIA SYSTEM COMPLETE</u> It is maintained and installed properly but not being utilized since the Halothene gas is not available locally. Department has plans of procuring the halothene gas cylinders from Karachi.	1
3.III.10	<u>MILK BUTRYMETER KOEHLER</u> These are stored and being utilized properly.	20
3.III.11	<u>CREAM BUTRYMETER KOEHLER</u> These are stored and being utilized properly.	5
3.III.12	<u>BUTRYMETER FOR CONDENSED MILK</u> These are stored and being utilized properly.	50
3.III.16	<u>D.C. AMPLIFIER AND ELECTROMETER</u> It is maintained and being utilized satisfactorily.	1
3.III.18	<u>AUTOMATIC WEATHER STATION WITH TRANSMITTERS</u> It could not be inspected physically since the concerned person was not available.	1
3.III.30	<u>SIGMA 2000 GAS CHROMATOGRAPH</u> Lab. conditions are poor. It is not being utilized since natural gas is not available.	1

P.G.I. No.	Description and Findings	Qty.
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REMARKS The department was advised to procure natural gas cylinder which are available in the nearby city of Hyderabad.

3.III.31

ATOMIC ABSORPTION SPECTROPHOTOMETER

1

Lab. is dust proof but the service engineer of M/s. Perkin Elmer (Supplier) reported that the lab. gets excessively hot in summer days and the room air conditioner fitted is not sufficient to maintain proper atmosphere.

Training has been provided to the end users and Dr. Suleman Qazi of the department seems to be competent enough to utilize the equipment.

The equipment has not been commissioned yet. The Supplier's Service Engineer is awaited to rectify the following:

1. Provide and install the N2O burner head interlock pin (which was short-supplied by the supplier).
2. HGA 600 does not communicate with 7700. The Suppliers' Service Engineer suspected B 0126952.

REMARKS: Department is highly enthusiastic of utilizing the equipment but installation has not been completed yet. PARC should communicate with supplier or his local agent to immediate commission the equipment.

P.G.I. No.	Description and Findings	Qty.
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CALCULATION:

The transformer (TRZ P/N BV596) was found defective by the suppliers representative at the time of commissioning. The supplier has arranged its replacement under warranty and a new component has been received at Islamabad.

The university authorities should perbue its installation/ commissioning of the equipment immediately.

(Please See Exhibit D-1)

3. IV. 1	<u>SLIDE PROJECTOR</u>	6
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These are maintained and utilized properly.

MISSING: As per the contract document, each slide projector was to be supplied with 06 spare halogen lamps. Spare lamps have not been supplied.

3. IV. 2	<u>OVERHEAD PROJECTOR APOLO</u>	6
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Out of the six Overhead Projectors, only four were supplied with tungsten-halogen 600 W lamps. These four are being properly maintained and utilized. Two of the projectors were without lamps and are stored properly but not utilized.

OBSERVATION: Two tungsten-halogen lamps were short supplied.

P.G.I. No.	Description and Findings	Qty.
	<u>SUGGESTION:</u> 600 W tungsten-halogen bulbs can be procured from local market. The departments concerned were advised to procure the lamps and to utilize the equipment.	
3.IV.5	<u>SCREEN PROJECTION</u> It is maintained well and utilized properly.	1
3.IV.6	<u>ROTARY TRAYS</u> These are stored and utilized properly.	4
3.IV.7	<u>MICROFICHE MICROFILM</u> The equipment is maintained and utilized properly.	1
3.IV.8	<u>MICROFICHE READER PRINT</u> It is maintained and utilized properly.	1
3.IV.9	<u>BOOK CHARGER MODEL C GAYLORD</u> It is maintained and utilized properly.	1
3.IV.10	<u>LAMINATOR</u> It is maintained and utilized properly.	1
3.IV.11	<u>BOOK LABELING SYSTEM</u> It is properly maintained and utilized.	1
3.IV.12	<u>PERIODICAL CHECK-IN CARDS</u> These are properly stored and utilized.	30
3.IV.13	<u>CARD DUPLICATOR</u> It is maintained and stored properly.	1

P.G.I. No.	Description and Findings	Qty.
3.IV.15	<u>BINDING SYSTEM COMPLETE</u> It is well maintained and being utilized.	1
3.V.1	<u>CALCULATOR</u> Two of the calculators found working.	3
	<u>AGRONOMY DEPARTMENT</u> It is stored in poor conditions and reported to have been found non-operational on receipt. <u>OBSERVATIONS:</u> The equipment was found non-operational: Electrical transformer or lead wire seems to be faulty. Remaining two pieces are properly maintained and are being utilized.	1
3.V.2	<u>SCIENTIFIC CALCULATOR, HAND HELD</u> These are being maintained and utilized properly.	3
3.VI.1	<u>AIRCONDITIONER</u> It is properly installed and is being utilized.	1
3.VII.1	<u>REFRIGERATED CENTRIFUGE</u> As per the equipment delivery list of PARC (Prepared by Dr. Idrees, Stores Officer NARC), two centrifuges were delivered to Agriculture University vide Issue Voucher No. 2274 whereas, the distribution list of Agriculture University shows that only one centrifuge is received and is delivered to Entomology Department. Mr. Shaikh Ghulam Hussain, Office Superintendent, Agriculture	2

P.G.I. No.	Description and Findings	Qty.
	<p>University, Tando Jam, who received and distributed the MART equipment at the university was of the view that PARC list might have some inadvertent error.</p> <p>The centrifuge is stored properly in Entomology department but have not been commissioned yet.</p> <p>The department has certain plans to utilize the equipment, one of the faculty members, who is abroad at the moment is awaited to utilize the equipment.</p>	
3.VII.2	<p><u>JT-6R-CENTRIFUGE</u></p> <p>One of the centrifuges found working satisfactorily.</p> <p><u>DAIRY TECHNOLOGY:</u></p> <p>The centrifuge appears to be out of order since it does not work It is lying unused but stored properly.</p> <p><u>OBSERVATION:</u> Electrical circuit fuses look faulty.</p> <p><u>REMARKS:</u> Any good Electrician/Technician can locate and rectify the defect. Does not seem to be a major defect.</p>	2
3.VII.4	<p><u>pHI-43, pH METER</u></p> <p>These are stored and Installed properly: Four pH meters were checked physically. Almost all the departments claim that the equipment is being utilized.</p>	6

P.G.I. No.	Description and Findings	Qty.
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NOTE: PARC delivery list prepare by Dr. Idress (Stores Officer, NARC) shows that six pH meters were issued to Agriculture University vide issue voucher No.2822. The distribution list of Agriculture University shows that only one pH meter is issued to Parasitology Microbiology, Pathology Department. (Code No. S-T-C), whereas four pH meters were inspected physically, rest of the three units (which were inspected) are not posted on the Agriculture University list. Hence Agriculture University list appears to be incomplete. The missing two pH meters could not be traced out. (PARC delivered 6 Nos whereas only 04 Nos were inspected). However, Mr. Liaquat Hussain, SPO (PARC) informed during his visit to Techno-Consult's office at Karachi on June 8, 1989 that all six pH meters have been received and installed by the Agriculture University in this regard Mr. Liaquat also showed a letter from competent authority confirming his statement.

- | | | |
|----------|---|---|
| 3.VIII.1 | <u>STUDENT MICROSCOPE</u>
These are installed, maintained and are being utilized. | 4 |
| 3.VIII.2 | <u>CAMERA 35 mm KODAK</u>
It is being maintained and utilized. | 1 |
| 3.VIII.3 | <u>MICROTOME, PRECISION ROTARY</u>
Two of the microtomes found working satisfactorily. | 3 |

P.G I. No.	Description and Findings	Qty.
	<u>PLANT BREEDING AND GENETICS DEPARTMENT</u>	1
	One MICROTOME supplied and is stored properly. It has been reported that there is no utility of the microtome in the department.	
	<u>SUGGESTIONS:</u> It was suggested that the department may inform the Vice-Chancellor of the university that the equipment is not required so that he could have transferred it to some other department which might utilize the equipment.	
3.VIII.4	<u>OVEN, DRYING, FORCED CONVECTION</u>	2
	It is properly maintained and utilized. Lab conditions are O.K.	
3.VIII.5	<u>STERIOSCOPIC ZOOM</u>	4
	<u>PLANT PROTECTION DEPARTMENT</u>	1
	Lab. conditions are O.K. The equipment is not being utilized since widefield eye pieces have not been supplied with the equipment. It could not be ascertained if the eye-pieces were short supplied or misplaced during shipment. However, the department claims that when the carton was un-packed for commissioning the equipment, eye-pieces were found missing.	
	Rest three are installed and being utilized in other departments.	

P.G.I. No.	Description and Findings	Qty.
3.VIII.6	<u>AUTO CLAVE STERILIZER (STERILIZER)</u>	2
	<u>PLANT PROTECTION DEPARTMENT</u>	1
	The equipment is stored in poor conditions and not commissioned as yet.	
	The other unit is well maintained and being utilized at Parasitology, Microbiology Department.	
3.VIII.7	<u>HUMIDIFIER, STANDARD SIZE</u>	1
	It is stored in poor conditions. Not commissioned yet.	
3.VIII.9	<u>SPECTROPHOTOMETER, SPEETRONIC - 35</u>	1
	It is well maintained and utilized.	
3.VIII.10	<u>HOT PLATE THERMOLYNE</u>	2
	These are maintained and utilized properly.	
3.VIII.11	<u>OSCILLOSCOPE</u>	1
	The equipment is supplied to the department of Pharmacology and Medicine. It is installed and well maintained but not being utilized.	
	<u>TRAINING</u> Although training was not a part of the contract, the department does not have any trained person. It was requested that training on operation of equipment be arranged. Also no literature on operation of equipment was supplied.	

P.G.I. No.	Description and Findings	Qty.
3.VIII.12	<u>DEMINERALIZER, AUTOMATIC</u> The unit is well maintained and installed but is not being utilized. It has been supplied to the department of physiology and Pharmacology. <u>TRAINING:</u> The department requires literature and practical training on operation of the equipment. No literature concerning operation of equipment was supplied.	1
3.VIII.13	<u>MICROTOME KNIFE SHARPNER</u> The equipment is stored properly in the department of Dairy Technology. It is reported that the equipment is not working but could not be tried since power supply was not available. <u>SUGGESTIONS:</u> PARC/NARC should send one of their technicians to repair and run the equipment.	1
3.VIII.16	<u>POLAR PLANIMETER</u> It is well maintained and being utilized.	1
3.VIII.18	<u>FOOD MIXER</u> It is properly maintained and being utilized.	1
3.VIII.19	<u>STIRRER, BLENDER</u> It is properly maintained and being utilized.	1
3.VIII.20	<u>MILK CRYSCOPE</u> It is properly installed and maintained but not being utilized.	1

P.G.I. No.	Description and Findings	Qty.
	<u>TRAINING:</u> The department requires training on operation of the equipment. No literature was supplied with equipment on operation.	
3.VIII.22	<u>COLONY COUNTER</u> The unit is well maintained and being utilized.	1
3.VIII.23	<u>REFRIGERATOR UPRIGHT</u> It is well maintained and being utilized.	1
3.VIII.24	<u>REFRACTROMETER, BRIX, HAND HELD</u> It could not be inspected physically since Dr. Rahim Bux, Chairman, Department of Bio-Chemistry, was not available.	1
3.VIII.25	<u>TEMPERATURE CONTROLLER YSI</u> It is properly stored and being utilized.	1
3.VIII.26	<u>SUN-SHINE RECORDER</u> It is properly installed and utilized.	1
3.VIII.27 & 3.VIII.28	<u>SIEVES, FULL HEIGHT, ROUND, VARIOUS DIA.</u> These are stored and being utilized properly.	6
3.IX.1	<u>CEMENT CUBE MOLD - 2"</u> It is stored and utilized properly.	1
3.IX.2	<u>FLEX SHAFT ELECTRIC CONCRETE VIBRATOR</u> It is stored and utilized properly.	1

P.G.I. No.	Description and Findings	Qty.
3.IX.4	<u>6" CEMENT CUBE MOLD</u> It is maintained and being utilized properly.	1
3.IX.5	<u>SLUMP CONE</u> It is maintained and being utilized properly.	1
3.IX.7	<u>GLASS MEASURING CYLINDER</u> It is stored and being utilized properly.	1
3.IX.9	<u>POCKET PENETROMETER</u> It is maintained properly but not being utilized.	1
3.IX.10	<u>CONCRETE TEST HAMMER</u> It is maintained properly. Operation was demonstrated. Future utilization expected since operation was not known earlier.	1

COMPLAINT/COMMENTS SHEETS
AGRICULTURAL UNIVERSITY, TANDO JAM

COMPLAINT/COMMENTS SHEET NO. 01-SA (Tando Jam.)

Institution: A.R.I., Tando Jam Location: ^{(1) Plant Physiology} (2) oil seed sec. Date Insp. 6/12/88

P.G.I. No. 3.I.04 Description: Kjeldhel Micro App. Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Name of Complainant: Kjeldhel micro Apparatus complete (distillation & digestion unit) was ordered. Contract document specified that both units were to be supplied. Instead, only the digestion unit was supplied.

Action Taken: /

Observation: Short-shipped

/

Remarks: _____

Contractor's Signature: Asad

Counterpart's Signature: Muhammad

Institution's Rep.'s Signature: Kareemullah

COMPLAINT/COMMENTS SHEET NO. 02-SA (Tando Jam)

Institution Ag. Research Instt. (T.J) Location Sugar Cane Sec. Date Insp. 6/12/88

P.G.L.No. 3.I.16 Description: Freezer, Chest type Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The Sealing edge of the freezer found crack when un-packed. Equipment non-commissioned yet.

Action Taken: /

Observation: _____

Remarks: Such crack marks & cracks were observed on almost all the deep freezers throughout the Sind & Punjab provinces.

Contractor's Signature: Nasir
Counterpart's Signature: Amir
Institution's Rep.'s Signature: Kamran Qureshi

COMPLAINT/COMMENTS SHEET NO. 03- (Tando Jam)

Instit. A.R.I. (Tando Jam) Location ~~Entomology~~ ^{Entomology} Date Insp. 7/12/88

P.G.L.No. 3. II. 05 Description: Tractor Mounted Sprayer (1)

Supplier: _____ Local Rep: _____

Brand/Manuf.: _____ Origin: _____

Nature of Complaint: Short-shipped - please refer attached sheet & observations below.

Action Taken: Letter written to Director ARI, Tando Jam who referred the same to PARC.

Observation: _____

Remarks: _____

Contractor's Signature:	<u>[Signature]</u>
Counterpart's Signature:	<u>[Signature]</u>
Instit. Rep.'s Signature:	<u>[Signature]</u>

OFFICE OF THE ENTOMOLOGIST AGRICULTURE RESEARCH INSTITUTE
TANDOJAM

No. Ento/Tech/ 679 / of 1988
Dated the 12/1/88

To,

The Director Research Sind,
Agriculture Research Institute,
Tandojam.

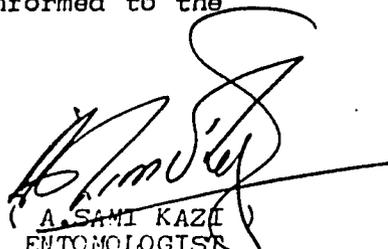
Subject: MART EQUIPMENTS.

Ref: No. Tech/Mart/(EQ)/1048/ dated 20-2-88.

On starting the assembly of the tractor mounted 'Broyll' sprayer received under Mart, as per the instructions of the Deputy Director, Agriculture Research Institute, Tandojam, it was found that there are some shortages of few parts listed here under:-

<u>S.No.</u>	<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	1	B-92 NY		
2.		B-30 NY	Nylon ell hose insert, 1" male npt X 3/4" barb.	1
3.	8	RB-10-34 NY	Nylon reducing bushing, 1" - 3/4".	2
4.		B-52	House clamp, 1/2" Steel	2
5.		8120 NY-406 TD	Double Hose shank Nozzel, Nylon.	12
6.		NO 111	Clamp sub-Assemblies for Vari-spacing Nozzles consist of upper and lower clamp and nut.	12
7.		Pipe Peces	Pipe Peces.	12

These may kindly got informed to the concerned agency.


A. SAMI KAZI
ENTOMOLOGIST
AGRICULTURE RESEARCH INSTITUTE
TANDOJAM

BEST AVAILABLE COPY

Tech-2
lw

COMPLAINT/COMMENTS SHEET NO. 04-SA

Instt. A.R.I. (Tando Jam) Location _____ Date Insp. 06/12/88

P.G.L.No. 3.V.06 Description: Electric Typewriter Qty: (6)

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The ball-Element was not supplied with the type writers. Hence could not be utilized.

Action Taken: _____

Observation: Only one out of the (6) Electric Typewriters was supplied with the ball-Element is being effectively used.

Remarks: _____

Contractor's Signature: Kasool

Counterpart's Signature: Amir

Instt. Rep.'s Signature: Muhammad S. Khan

COMPLAINT/COMMENTS SHEET NO. 05-SA (Tando Jam)

Instt. ARI (Tando Jam) Location Statistics Sec. Date Insp. 6/14/88

P.G.I. No. 3. V. 07 Description: Calculator Qty: 04

Supplier: _____ Local Rep: _____

Brand/Manuf.: TEXAS INSTR. Origin: _____

Nature of Complaint: Two of the four were not working when
Un-packed. The calculators are conventional type, can only
perform 04 typical arithmetic operations, and not statistical
operation can be performed on the calculators.

Action Taken: /

Observation: The deptt. is not utilizing the calculators since
these are simple arithmetic calculators. Deptt. reports that
these calculators are useless for the deptt.

Remarks: The contract document contains specifications "CALCULATOR,
STATISTICS" whereas the calculators can't perform any statisti-
cal operation, although, the brand is same. Two
were found non-operational, out of four.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 06-SA

Institution: ARI (Tando Jam) Location: ^{11) SUGAR CANE SECTION} COTTON SECTION Date Insp: 6-7/1484

P.G.I. No. 3.X.14 Description: Plant Growth Chambers Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. LAB-LINE Origin: U.S.A.

Nature of Complaint: Not-installed / Not-commissioned & Not-utilized since there is no trained person on the equipment in the Instt.

Action Taken: _____

Observation: The Growth Chambers are un-packed and checked - Found ok. (no-short supply) - Depts. are enthusiastic for utilization of the eqpt.

Remarks: NARC should send some trained person to install/commission the equipment and train the lab-staff.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 07-S'A

Institution: A.R.I. (Tando Jam) Location _____ Date Insp. 11/6-7/85

P.G.L.No. 3. I. "5" Description: INCUBATOR, B.O.D Qty: 02

Supplier: _____ Local R. : _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: Not commissioned / Not utilized. Deptt. has certain plans to use the eqpt. effectively but no trained person is available to install/operate the equipment.

Action Taken: _____

Observation: The Incubators were un-packed and found ok (No-Short Supply). Deptt. immediately require the eqpts. to be utilized but non-availability of trained person is their main problem. Sent

Remarks: PARC/NARC should immediately send somebody to install / to train the Lab. Staff on the equipment.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. DB-SA

Instt. A.R.I (Tando Jam) Location _____ Date nsp. 12/6-7/88

P.G.I.No. 3. II. 01 Description: Seed Germinator Qty: _____

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: Nat Commissioned / Nat utilized. The depts. are highly interested in utilization of the equipment but ~~they~~ no trained lab-staff is available to instal/operate the eqpt.

Action Taken: _____

Observation: The Seed Germinators were unpacked & found o.k. (No Start Supply).

Remarks: NARC/PARC should send some trained person to instal/commission the equipment and to train the lab-staff on the equipment.

Contractor's Signature: _____
 Counterpart's Signature: _____
 Instt. Rep.'s Signature: _____

COMPLAINT/COMMENTS SHEET NO. 09 - SA

Instt. ART. (Tando Jam) Location Directorate Date Insp. 17/6-7/88

P.G.L.No. 3. X-15 Description: Shaker, Water Bath Qty: 01

Supplier: _____ Local R: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: The PARC list shows that one Water Bath Shaker was supplied to the Instt. but the institute has not received the eqpt.

Eqmt

Action Taken: /

Observation: Equipment Missing

Remarks: _____

Contractor's Signature: Kasand

Counterpart's Signature: Amir

Instt. Rep.'s Signature: Kasand

COMPLAINT/COMMENTS SHEET NO. 10 - SA (Tando Jam)

Instt. ARI (Tando Jam) Location Directorate Date Insp. 12/6-7/88

P.G.L.No. 3. VIII, 24 Description: Brix Refractometer Qty: 01

Supplier: _____ Local Re: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: The 05 pieces carton was supplied at the USAID Ware House, Karachi - when Un-packed at Tando Jam, only 04 pieces were found. One Refractometer was missing.

Action Taken: /

Observation: Missing one piece

Remarks: _____

Contractor's Signature: Nasir
Counterpart's Signature: Amis
Insrt. Rep.'s Signature: Kamran Qureshi

COMPLAINT/COMMENTS SHEET NO. 011-SA

Instr. A.S.I. (Tando Jam) Location Directorate Date Insp. 12/6-7/0

P.G.L.No. 3-III-20 Description: Cane Crusher Qty: 03

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: At the time of delivery, 3 packs were handed-over by Mr. Idrees of SARE, and it was told that these three packs contain 3 Nos cane crushers & 3 Nos cane shredders: when unpacked at ASI Tando Jam, only

Acrtion Taken: Cane Shredders were found - There was no Cane-Crusher in the cartons.

(Mr. Idrees was reported at Karachi warehouse at the time of delivery but he could not ascertain the fact.

Observation: Three Crushers are Missing.

Remarks: The package could not be thoroughly inspected at the time of delivery - Crushers Short Supplied

Contractor's Signature: Natool

Counterpart's Signature: Jamini

Instr. Rep.'s Signature: Heerachal Chie

SSG/89-RR1-110
27 February 1989

Registered A/D

Entomologist
Rice Research Institute
Department of Agriculture, Livestock & Fisheries
Government of Sind
Distt. Larkana-77080

Attention : Mr. Mohammad Ramzan Hakro

Subject : Pre-installation requirement for GC Model Sigma 2000

Dear Sir:

Please refer to our letter No.SSG/89-RR1-008 dated 03 Jan 89 referring our letter No.SSG/88-RR1-635 dated 29 Mar 88 on subject.

So far we have not heard from you regarding fulfilment of pre-requisites for the installation of GC Sigma 2000.

As informed you in our previous letter the warranty time for subject equipment is very short now. Any problems encountered during installation and commissioning of subject equipment after expiry of warranty period will not be covered by our Principal.

We, therefore, request you to complete the pre-requisites, so that the system is installed, without further delays and inform us accordingly.

Regards

Yours truly
for Zeilin (Pvt.) Limited



Mohammad Sarfraz

cc- Mr. A.M. Ansari

Copy to: 1- Mr. Liaquat Hussain
P.A.R.C., Islamabad

2- Director
Rice Research Institute
Dokri,
Distt.Larkana

3- Mr. Masood Khan
Energy Specialist
Techno-Consult
Consulting Engineers
37-K-6, P.O. Society,
Karachi-800

ZEILIN (Private) LIMITED
P.O. Box 231P
Khanpur M.A. District Road
Karachi PAKISTAN
Phone: 228841-84
Cable: ZEILTON
Telex: 25376 ZIL PAK
Branches: Lahore, Rawalpindi and Peshawar

SSG/89-RR1-109
27 February 1989

Registered A/D

Agriculture Chemist
Soil and Water Testing Lab
Rice Research Institute
Dokri
Distt. Larkana.

Subject : Perkin Elmer Equipment AAS-5100

Dear Sir:

Please refer to our letter No.SSG/89-RR1-006 dated 03 Jan 89 referring our letter No.SSG/88-RR1-636 dated 29 Mar 88 on subject.

So far we have not heard from you regarding fulfilment of pre-requisites for the installation of AAS-5100.

As informed you in our previous letter the warranty time for subject equipment is very short now. Any problems encountered during installation and commissioning of subject equipment after expiry of warranty period will not be covered by our Principal.

We, therefore, request you to complete the pre-requisites, so that the system is installed, without further delays and inform us accordingly.

Regards

Yours truly
for Zelin (Pvt) Limited



Mohammad Sarfraz

Copy to: 1- Mr. Liaquat Hussain
P.A.R.C., Islamabad

2- Director
Rice Research Institute
Dokri, Distt. Larkana

3- Mr. Masood Khan
Energy Specialist
Techno-Consult
Consulting Engineers
37-K/6, PECH Society,
Karachi-29

4- Mr. A.M. Ansari

ZELIN (Private) LIMITED
P.O. Box 7318
A. Jinnah/MA Jinnah Road
KARACHI PAKISTAN
Phone: 25880-94
Cable: ZELTONE
Telex: 25378 ZELIN
Branches: Lahore, Rawalpindi and Peshawar

RICE RESEARCH INTITUTE, DOKRI

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
3.I.1	<u>FLAME PHOTOMETER</u> Stored properly. Not being utilized. <u>OBSERVATION:</u> Flame-Photometer is propane-gas operated and requires compressed air for operation. Both the propane gas and compressed air are not available, to operate the equipment. <u>TRAINING:</u> Department personnel require training on installation and operation of the equipment. <u>SUGGESTIONS:</u> (1) Propane-gas cylinders can be procured from Karachi. Small capacity, low cost compressors are also available in the local market. (2) PARC/NARC should impart training on installation/operation of the equipment.	1
3.I.2	<u>MICROSCOPE RESEARCH</u> Properly maintained and being utilized.	1
3.I.12	<u>MOISTURE AND SOIL ACIDITY METER</u> Properly maintained and being utilized.	1
3.I.18	<u>FREEZER CHEST TYPE</u> Stored properly and being utilized.	2

P.G. No.	Description and Findings	Qty.
	<p><u>OBSERVATION:</u> Cracks and crack marks were observed on the sealing edge of the body. Some of the pieces were glued to the body.</p> <p><u>REMARKS:</u> Similar cracks and crack marks were observed on the freezers supplied to other Institutes/Provinces. The cracks seemed to be repaired at the origin of the supply.</p>	
3.I.19	<p><u>HOOD LAMINAR FLOW</u></p> <p>Properly stored and not being utilized.</p> <p><u>COMMISSIONING:</u> Not commissioned since natural gas is not available.</p> <p><u>MISSING:</u> Operation/Instruction manual is missing.</p> <p><u>DAMAGES:</u> Laminar hood frame cover holding clips found broken and damaged. Seems to be damaged during shipment.</p>	1
3.II.11	<p><u>CLEANER AND GRADER</u></p> <p>Installed and maintained properly and is being utilized. Grader was supplied with two sieves which are improper for rice grading. Proper mesh size sieves are required to fully utilize the equipment.</p> <p><u>OBSERVATION:</u> The sieves supplied can be used for cotton seed grading (mesh numbers are proper for cotton seed), not for rice grading.</p>	2

P.G No.	Description and Findings	Qty.
3.II.13	<u>ROTAVATOR, HEAVY DUTY</u> Stored in poor conditions. <u>OBSERVATION:</u> It was reported that the rotating chain broke during the first 2 hours operation. Its a typical and specially designed chain. The department is positive that it would not work properly even after repairs. The chain is not available in local market. <u>SUGGESTION:</u> Department was not aware that whether the warranty was still valid or not. Department was suggested to immediately contact the SPO, ACRC, who could ask the supplier to replace the broken item under warranty.	1
3.II.25	<u>WEEDER (MECHANICAL FOR PADDY FIELDS)</u> Stored in poor condition. Not being utilized. <u>COMPLAINT:</u> The department complains that the equipment is very heavy for application in paddy fields. <u>REMARKS:</u> The inspection team observed that the field staff was not well acquainted with the equipment. PARC/FMI should arrange operation/maintenance training for institute field staff.	1
3.II.26	<u>GRAIN VIEWER</u> Properly maintained and is being utilized.	1
3.II.27	<u>THRESHER (SMALL BUNDLE TYPE)</u> Properly maintained and is being utilized.	1

P.G.I. No.	Description and Findings	Qty.
3.II.28	<u>COMBINE, SELF PROPELLED</u>	1

Stored in very poor condition, not commissioned and non-operational.

OBSERVATION: Department reported that idler pulleys were found broken when combine was received. Department's field staff is not acquainted with equipment and can not repair/operate the equipment. No warranty claim or insurance claim was lodged. Warranty documents were not available at the time of inspection.

TRAINING: Department personnel require training on operation/maintenance of the combine. No literature on the subject was reported to be supplied with the combine.

3.III.30	<u>GAS CHROMOTOGRAPH-SIGMA 2000</u>	1
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Properly installed but not being utilized since natural gas is not available, to operate the equipment.

TRAINING: Department personnel require training on operation of the equipment but it could only be provided after the natural gas availability.

NOTE: M/s. Zelins Limited (The local representative of the supplier) has already provided training on the equipment in collaboration with PARC/USAID. Please see appendix - 1 for details.

(Please See Exhibit D-2 which is self explanatory).

P.G.I. No.	Description and Findings	Qty.
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SUGGESTION: Department was advised to procure natural gas cylinders which are easily available in the local market.

3.III.31	<u>ATOMIC ABSORPTION SPECTRO-PHOTO-METER</u>	1
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Installed but not commissioned yet since natural gas is not available. Installation work seems to be incomplete. Department reported that commissioning will be performed by M/s. Zelins Limited after availability of natural gas.

TRAINING: Department personnel require practical training on operation of the equipment. The Director General RRID was of the view that the classroom training provided previously by PARC could not produce the skills required to properly utilize the equipment.

NOTE: Please see appendix - 1 for details of the training provided. (Please See Exhibit D-3 which is self explanatory)

3.IV.7	<u>MICROFICHE MICROFILM</u>	1
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Properly installed and being utilized.

3.IV.8	<u>MICROFICHE READER PRINTER</u>	1
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Maintained and being utilized.

3.V.3	<u>PHOTOCOPIER</u>	1
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Maintained and being utilized.

P.C.I. No.	Description and Findings	Qty.
3.V.8	<u>BINDING SYSTEM PLASTIC</u> Properly maintained and utilized. The transformer supplied with the equipment was received faulty. A new transformer was locally purchased for utilizing the copier. The faulty transformer requires repairs.	1
3.V.9	<u>LAMINATOR</u> Installed but is not being utilized. Plastic cards are not available locally.	1
3.V.10	<u>PAPER CUTTING MACHINE</u> Installed but not being utilized. It is reported that the extra blades (which were to be supplied as per contract) were found missing when the equipment was received.	1
3.VII.1	<u>CENTRIFUGE</u> Issue voucher number is not available. The equipment was not entered in the issue list of PARC. Not installed but is stored properly. <u>TRAINING:</u> Department requires training on operation/ installation of the equipment.	1
3.VII.5	<u>SPECTROPHOTOMETER UV 70</u> Stored properly. Not being utilized. <u>TRAINING:</u> Department requires training on installation and operation of the equipment.	1

P.G 1. No.	Description and Findings	Qty.
3.VIII.2	<u>CAMERA, 35 mm KODAK</u> Properly maintained and being utilized.	1
3.VIII.4	<u>OVEN, DRYING FORCED CONVECTION</u> Properly maintained and being utilized.	2
3.VIII.5	<u>STERIOSCOPIC ZOOM</u> Stored properly. Not being utilized.	1
	<u>UTILIZATION:</u> As per the contract document, a 220 V stereoscopic zoom without any transformer was to be supplied. Instead, a 110 V zoom without transformer has been supplied. Equipment can not be utilized without 220/110 V transformer.	
3.VIII.23	<u>REFRIGERATOR, UPRIGHT</u> Two of the equipments were inspected physically. Found properly maintained and utilized. One of the equipment has been transferred to Director General's office, Tando Jam.	3
3.X.1	<u>STILL WATER MEGA PURE</u> Properly installed and being utilized.	1
3.X.7	<u>CHAMBER GROWTH</u> Properly stored. Not being utilized. Department has future plans for utilization of the equipment.	1

P.G.I. No.	Description and Findings	Qty.
	<p><u>BREAKAGE:</u> Fluorescent tube lights were found broken during shipment.</p>	
	<p><u>TRAINING:</u> Department requires training on installation/operation of the equipment.</p>	
3.X.17	<p><u>THERMOGRAPH</u> Properly maintained and being utilized.</p>	1

FOLOWING EQUIPMENTS ARE LYING PACKED, AND ARE FOR RE-DISTRIBUTION BY
THE DIRECTOR GENERAL AG. RESEARCH (SIND).

- 3.IV.1 Slide Projector (1)
- 3.IV.2 Overhead Projector Apolo (1)
- 3.IV.3 Overhead Projector Opaque (1)
- 3.V.6 Typewriter, Electrical (1)
- 3.VI.1 Air Conditioner (3)

COMPLAINT/COMMENTS SHEETS

R.R.I., DCRI

COMPLAINT/COMMENTS SHEET NO. 01-SD

Institution: R.R.I. Dokri Location: _____ Date Insp. 12/10/85

P.G.L.No. 3.I.18 Description: Freezer Chest type Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: Sealing Edge of the freezer found cracked, many cracks were and broken.

Action Taken: _____

Observation: Deptt. requires training on commissioning / operation & trouble-shooting of the equipment.

Remarks: PARC/NARC should send somebody to train the lab-staff.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 02 - 5D

Institution: R.R.I. Dohsi Location: _____ Date Insp. 12/10/88

P.C.L. No. 3. I. 19 Description: Hood Laminar Qty: 01

Supplier: _____ Local Rep: _____

Brand/Model: _____ Origin: _____

Nature of Complaint: ① Operation Manual Missing ② Case holding clips missing ③ Yet not utilized since Natural gas not available.

Action Taken: _____

/

Observation: _____

Remarks: _____

Contractor's Signature: Nasrol

Counterpart's Signature: Joshi

Institution Rep.'s Signature: M. S. ...

COMPLAINT/COMMENTS SHEET NO. 03-SD

Institution: R.R.I. Dokri Location: _____ Date Insp. 12/10/88

P.G.L.No. 3. II. 13 Description: Rotavator Heavy Duty : 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Rotating Chain broken during first 2 hours operation. The chain is not available locally and so equipment is lying idle.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Naxool.

Counterpart's Signature: Jmin

Institution's Representative Signature: M. G. Sankar

COMPLAINT/COMMENTS SHEET NO. 04-SD

Instt. R.R. I. Dokri Location _____ Date Insp. 12/10/88

P.G.L.No. 3. II . 11 Description: Cleaner & Grader Qty: 02

Supplier: _____ Local P. No. _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The equipment is supplied with 02 nos. sieves which are of improper size for rice grading. Proper size sieves are required for effective utilization of the eqpt.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 05-SD

Instt. R.R.I. Dokri Location _____ Date Insp. 14/10/88

P.G.I.No. 3.II.28 Description: Combine, Self Prop. Qty: 01

Supplier: _____ Local rep: _____

Brand/Manuf. _____ Origin: U.S. A.

Nature of Complaint: The equipment is non-operational. The pulley was found broken when the eqpt. was received.

Action Taken: /

Observation: _____

Remarks: _____

Contractor's Signature: Katand

Counterpart's Signature: Amir

Instr. Rep.'s Signature: M. S. Sawh

COMPLAINT/COMMENTS SHEET NO. 6-SD

Institution: R. R. I. Dokri Location: _____ Date Insp. 12/10/88

P.G.L.No. 3. V. 10 Description: Paper Cutting M/c Qty: 01

Supplier: _____ Location: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: Three Extra blades were to be provided with the equipment as per contract documents. Three extra blades were missing.

Action Taken: /

Observation: _____

Remarks: _____

Contractor's Signature: Nasool

Counterpart's Signature: Juris

Institution Rep.'s Signature: M. B. B.

COMPLAINT/COMMENTS SHEET NO. 07-SD

Institution: R. R. I. Dokri Location: _____ Date Insp. 12/10/88

P.G.L.No. 3. VIII. 05 Description: Stereoscopic Zoom Qty: 01

Supplier: _____ To Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: As per the contract document, 220V stereoscopic zoom was to be supplied but a 110V zoom has been supplied. Instrument is being utilized with a 110/220 step down transformer.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Instr. Rep.'s Signature: [Signature]

RICE RESEARCH INSTITUTE

DORRI, DISTRICT KARACHI

Department of
Health & Family
Government of
No. Tech/A(27)II/20/2-73
Dated 1.6.1988.

The Director General,
Agriculture Research Sind,
Hyderabad

SUBJECT: INSTALLATION OF INSTRUMENTS UNDER MAAT PROJECT.

Mr. Feroze Alam and Zia-ur-Rahman (Manager of ZELIN9Private) Ltd. visited this Institute for physical installation of Spectrophotometer and Gas Chromatograph for MAAT project and made necessary arrangements for installation requirements to install these instruments.

- a). Pre-installation requirements for Gas Chromatograph Model Sigma 200.
 - i). Helium gas cylinder.
 - ii). Air Compressor and an appropriate filter for the same.
 - iii). Voltage Stabilizer.
 - iv). Four power outlets with each of 220V, 15 amps.
- b). Pre installation requirements for Atomic Absorption spectrophotometer Model AAS-5100.
 - i). Argon, CH and Nitrous Oxide gases.
 - ii). Voltage Stabilizer.
 - iii). Exhaust hood,
 - iv). Power outlets-One single phase 220V, 20 amps and five of single phase 220V, 15 amps.

It is estimated that an amount of about Rs:35,000 for installation of Gas Chromatograph and Rs:15,000 for Atomic absorption Spectrophotometer i.e. total Rs: 50,000 are required for installation of both the equipments.

As this Institute have no budget for purchase of the pre installation requirements for the instruments received under MAAT Project hence it is requested that Pakistan Agricultural Research Council (MAAT PROJECT) may kindly be requested to supply the pre installation requirements as mentioned above or the funds may be provided for local arrangements of the same.

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DIRECTOR RICE RESEARCH SIND
RICE RESEARCH INSTITUTE
DORRI

c.c.

Mr. Liaqat Husain, Senior Procurement Officer, (MAAT) ✓
Pakistan Agricultural Research Council, P.O. Box No: 1031,
G-5/1, Islamabad, for necessary arrangements.

SUBMITTED:

It is requested that some field/laboratory equipments have been received under MART Project. If agreed the same may be distributed as per list given below:

<u>S.No:</u>	<u>Name of the deptt:</u>	<u>Name of the equipments.</u>	<u>Qty.</u>
1.	Director General(Res:) office.	i). Slide projector.	1
		✓ii). Overhead projector	1
		✓iii). Overhead projector(Paque)	1
		✓iv). Typewriter(Electric)	1
		v). Camera 35mm with microzoom lens.	1
		✓vi). Air conditioner	1
		✓vii). Refrigerator	1
2.	Director, RRI, Office.	i). Micro film reader	1
		ii). Microfilm printer	1
		iii). Photocopier	1
		iv). Refrigerator	1
		v). Air conditioner	1
3.	Rice Breeding & Genetics.	i). Air conditioner	1
		ii). Grader(Seed and grain)	1
4.	Agri:Chemistry & S&WTL.	i). Spectrophotometer	1
		ii). Atomic absorption spectro-photometer	1
		iii). Flame photometer	1
		iv). Still water range	1
		v). Air conditioner	1
5.	Agronomy	i). Seedburo, (germinator)	1
		ii). Moisture meter	1
		iii). Freezer chest	1
		iv). Oven drying	1
		v). Chamber growth	1
6.	Plant Pathology	i). Freezer chest	1
		ii). Bio-safe hood laminar bench type	1
		iii). Oven drying	1
		iv). Stereoscopic zoom	1
		v). Air conditioner	1
7.	Entomology	i). N-601-9101 Sigma 2000 23 V 50/60 Hz.	1
		ii). Air conditioner	1
8.	Rice Technology	i). Grader(seed and grain)	1
		ii). Air conditioner	1
9.	Plant Physiology	i). Thermograph	1
		ii). Air conditioner	1

- | | | |
|---------------------------|--|---|
| 10. Agriculture Engineer. | i).Rotavator | 1 |
| | ii).Plot combined | 1 |
| | iii).Thresher (small bundle type) for wheat and other small grain. | 1 |
| 11. Library. | i).Binding system | 1 |
| | ii).Laminator | 1 |
| | iii).Paper cutting machine | 1 |
| 12. Dormitory | i).Refrigerator | 1 |
| | ii).Air conditioner | 1 |
| 13. Committee Room | i).Air conditioner | 1 |
| 14. Statistics. | i).Air conditioner | 1 |

~~_____~~
(M. A. BHUTTO)
CHAIRMAN

~~_____~~
(M. R. HAKRO)
MEMBER

~~_____~~
(A. R. ARAIN)
MEMBER

APPROVED

*As per advice of Director General
Agri. Res. Sind*

[Signature]
DIRECTOR RICE RESEARCH SIND
RICE RESEARCH INSTITUTE
DCKRI

RICE RESEARCH INSTITUTE

DOKRI, DISTRICT KARAKORA



Department of Agriculture
 Government of Pakistan
 No. Tech: 14(27)II/2072-73
 Dated: 1.6.1968.

To,

The Director General,
 Agricultural Research Sind,
Hyderabad

SUBJECT: INSTALLATION OF INSTRUMENTS UNDER MAWF PROJECT.

Mr. Perce Allen and Zia-ur-Rahman (Director of ZELIN9Private) Ltd. visited this Institute for physical installation of Atomic Absorption Spectrophotometer and Gas Chromatograph under MAWF project and made calculation requirements to install the following systems.

- a). Pre-installation requirements for Gas Chromatograph Model Sigma 200.
 - i). Helium gas cylinder.
 - ii). Air Compressor and an appropriate filter for the same.
 - iii). Voltage Stabilizer.
 - iv). Four power outlets with each of 220V, 15 amps.
- b). Pre installation requirements for Atomic Absorption spectrophotometer Model AAS-5100.
 - i). Argon, CH and Nitrous Oxide gases.
 - ii). Voltage Stabilizer.
 - iii). Exhaust hood.
 - iv). Power outlets-One single phase 220V, 20 amps and five of single phase 220V, 15 amps.

It is estimated that an amount of about Rs:35,000 for installation of Gas Chromatograph and Rs:15,000 for Atomic absorption Spectrophotometer i.e. total Rs: 50,000 are required for installation of both the equipments.

As this Institute have no budget for purchase of the pre installation requirements for the instruments received under MAWF Project hence it is requested that Pakistan Agricultural Research Council (MAWF PROJECT) kindly be requested to supply the pre installation requirements as mentioned above or the funds may be provided for local arrangements of the same.


 9/c
 Director RICE RESEARCH INSTITUTE
 RICE RESEARCH INSTITUTE
 DOKRI

c.c.

Mr. Liaqat Husain, Senior Procurement Officer, (MAWF) ✓
 Pakistan Agricultural Research Council, P.O. Box 601001,
 6-5/1, Islamabad, for necessary arrangements.

SUBMITTED:

It is requested that some field/laboratory equipments have been received under MARE Project. If agreed the same may be distributed as per list given below:

S.No:	Name of the deptt:	Name of the equipments:	Qty.
1.	Director General(Res:) office.	i). Slide projector.	1
		✓ii). Overhead projector	1
		✓iii). Overhead projector(Manual)	1
		✓iv). Typewriter(Electrical)	1
		v). Camera 35mm with microscope lens.	1
		✓vi). Air conditioner	1
		✓vii). Refrigerator	1
2.	Director, RRI, Office.	i). Micro film reader	1
		ii). Microfilm printer	1
		iii). Photo copier	1
		iv). Refrigerator	1
		v). Air conditioner	1
3.	Rice Processing & Genetics.	i). Air conditioner	1
		ii). Greder(Seed and grain)	1
4.	Agri:Chemistry & S&MTL.	i). Spectrophotometer	1
		ii). Atomic absorption specto-photometer	1
		iii). Flame photometer	1
		iv). Still water range	1
		v). Air conditioner	1
5.	Agronomy	i). Seedburn, (<i>germinator</i>)	1
		ii). Moisture meter	1
		iii). Freezer chest	1
		iv). Oven drying	1
		v). Chamber growth	1
6.	Plant Pathology	i). Freezer chest	1
		ii). Bio-safe hood laminar bench type	1
		iii). Oven drying	1
		iv). Stereoscopic zoom	1
		v). Air conditioner	1
7-	Entomology	i). N-601-9101 Sigma 2000 23 V 50/60 Hz.	1
		ii). Air conditioner	1
8.	Rice Technology	i). Graler(seed and grain)	1
		ii). Air conditioner	1
9.	Plant Physiology	i). Thermograph	1
		ii). Air conditioner	1

Contl:....

SECTION "E"
BALUCHISTAN

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BALUCHISTAN
SUMMARY OF SUPPLIES AND UTILIZATION

INSTITUTION	NO. OF EQOPT. SANCTIONED	NO. OF EQOPT. DELIVERED	NO. OF EQOPT. BEING UTILIZED	NO. OF EQOPT. NOT BEING UTILIZED	REMARKS
	(1)	(2)	(3)	(4)	(5)
A.R.I., SIRYAB	* 111 ** 86	* 106 ** 73	63	40	03 Nos eqpts could not be inspected physically.
A.Z.R.I., QUETTA	298	296	286	4 02 items stolen	04 Nos eqpts could not be inspected physically.
TOTAL	409	402	349	44	05 Nos eqpts could not be inspected physically.

- * (1) SOURCE:- USAID list as per Mr. Masood Mahmood's draft report.
 ** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurement Officer (PARC).
 * (2) SOURCE:- Physical inspection and Instt's record.
 ** SOURCE:- Information supplied by Mr. Liaquat Hussain, Senior Procurement Officer (PARC).
 (3) SOURCE:- Physical inspection
 (4) SOURCE:- Physical inspection
 (5) Items were either transferred to other locations or concerned staff was not available.

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SUMMARY OF MONITORING

AZRI:

1. Out of the 296 pieces of equipments supplied about 286 pieces of equipment are being maintained and utilized effectively.

ARI:

2. Most of the field implements supplied have not been commissioned yet, and are stored in poor conditions.

Apparently, the institute does not have plans for proper utilization of field implements. The institute's representative informed the inspection team that some of the implements supplied are not required by the institute.

3. Majority of the lab. equipments which are not being utilized at present seem to have minor defects/faults. The institute does not have trained personnel to repair these equipments.
4. Generally, the laboratories are not protected against dust.

RECOMMENDATIONS:

1. PARC/FMI should provide assistance in installation/commissioning of the implements.

FMI should also impart training to institute's staff on proper operation of field equipments.

2. The Central Repair Cell of PARC should provide assistance in commissioning/repair of the lab. equipments.

AGRICULTURAL RESEARCH INSTITUTE, SIRYAB

Following equipments were found properly maintained and being utilized at ARI, Siryab.

<u>P.G.I. No.</u>	<u>Description and Findings</u>	<u>Qty.</u>
4.I.1	<u>BALANCE, ELECTRONIC, ANALYTICAL, SINGLE PAN</u>	6
4.I.2	<u>BALANCE ELECTRONIC, TOP LOADING</u>	2
4.I.3	<u>TRIPPLE BEAM BALANCE</u>	2
4.I.4	<u>BALANCE ELECTRONIC 0.1 G READABILITY</u>	2
4.I.5	<u>MICROSCOPE (KEN-A-VISION)</u>	5
4.I.7	<u>MICROSCOPE, PHASE CONTACT, BINOCULAR</u>	2
4.I.8	<u>MICROSCOPE, PROJECTION, BINOCULAR</u>	1
4.I.10	<u>SIEVES, FULL HEIGHT (SET OF 3 SIEVES)</u>	2
4.I.11	<u>OVEN, DRYING FORCED CONVECTION</u>	4
4.I.13	<u>REFRIGERATOR, UPRIGHT WITH FREEZER</u>	3
4.I.14	<u>AUTOClave (STERILIZER)</u>	2
4.I.15	<u>MICROTOME, PRECISION ROTARY</u>	2
4.I.17	<u>MOISTURE TESTER</u>	4
4.I.20	<u>SPECTROPHOTOMETER - 35 MODEL</u>	2
4.I.21	<u>HOT PLATE, THERMOLYNE</u>	2
4.I.22	<u>MUFFLE FURNACE</u>	2
4.I.24	<u>REFRACTROMETER, BRUX, HAND HELD</u>	4
4.II.8	<u>THRESHER</u>	1
4.II.13	<u>ROYAVATOR</u>	1
4.II.19	<u>THRESHER (SMALL VOGAL PLANT)</u>	1
4.III.1	<u>PHOTOCOPIER</u>	2
4.III.3	<u>CALCULATOR, SCIENTIFIC</u>	2
4.III.4	<u>SLIDE PROJECTOR</u>	1
NOT KNOWN	<u>STUDENT MICROSCOPE</u>	2

Following is the list of equipments which are not being utilized for various reasons.

P.G.I. No.	Description and Findings	Qty.
4.I.6	<u>STEREOSCOPIC ZOOM</u> Stored in poor lab. conditions (No dust proofing). <u>UTILIZATION:</u> Not commissioned. Department has future plans for utilization.	2
4.I.9	<u>MILL CYCLONE, SAMPLE</u> Stored in poor lab. conditions (No dust proofing). <u>UTILIZATION:</u> Not commissioned. Although this is a very simple equipment and does not need any special installation but the department never attempted to commission the equipment. <u>ACTION:</u> One of the equipments was commissioned and operation was practically demonstrated by the inspection team.	2
4.I.16	<u>WATER BATH (VERSA)</u> Stored properly but not commissioned. Department has future plans to utilize the equipment.	1
4.I.18	<u>INCUBATOR COOLED, B.O.D</u> Stored in poor lab. conditions. Not commissioned. Department has future plans to utilize the equipment. <u>NOTE:</u> The cooled incubator was not included in the PARC issue list (prepared by Mr. Idrees of N.A.R.C).	1

P.G.I. No.	Description and Findings	Qty.
4.I.19	<p><u>FREEZER, CHEST TYPE</u></p> <p>One of the freezer is being utilized. The other one has not been commissioned yet.</p> <p><u>OBSERVATION:</u> Both the freezers have cracks and crack marks. Apparently looks that broken pieces of plastic sealing edge of the body were repaired and glued at the origin of supply.</p>	2
4.I.26	<p><u>STILL WATER MEGA PURE</u></p> <p>Stored properly. Not commissioned yet.</p> <p>Reported that department has future plans for utilization.</p>	1
4.I.27	<p><u>FLAME PHOTOMETER</u></p> <p>Stored properly. Not commissioned.</p> <p>Propane gas and compressed air are required to operate the equipment but are not available.</p> <p><u>FUTURE PLANS:</u> Department has initiated plans for procuring the propane gas cylinders and a small capacity compressor and is expected to have these facilities in the next fiscal year.</p>	1
4.I.28	<p><u>DIGITAL pH METER</u></p> <p>Only one of the pH meters supplied is being utilized. Department reported that the other two found non-operational when received.</p>	3

P.G.T. No.	Description and Findings	Qty.
	<p><u>PREVIOUS ACTION:</u> Department tried to commission the equipment but failed. Department requires help from NARC for identification/rectification of fault.</p>	
4. I. 29	<p><u>KJELDEHL MICRO APPARATUS</u></p> <p>Stored properly.</p>	1
	<p><u>SHORT SUPPLY:</u> As per the contract document. Complete kjeldehl micro-apparatus consisting of both distillation and digestion units was to be supplied but only the digestion unit was supplied. Distillation unit short-supplied. However, Mr. Liaquat Hussain, SPO (PARC) informed during his visit to Techno-Consult's office at Karachi that M/s. "Pem Science Corp." has been contacted who has agreed to send the missing items to all the provinces.</p>	
	<p><u>UTILIZATION:</u> Not being utilized.</p>	
4. II. 1	<p><u>SEED COUNTER</u></p>	3
	<p>Three seed counters were supplied to the institute. All the three stored in poor lab. conditions and are not maintained properly.</p>	
	<p><u>OBSERVATION:</u> None of the three working properly.</p>	
	<p>(1) Two of the seed counters does not pick the seed from the base and so are not being utilized. Seems to be installation problem.</p>	

P.S.I. No.	Description and Findings	Qty.
	<p><u>SUGGESTION:</u> These are not very complicated instruments and any technician can rectify the above mentioned defects. Suggested to attempt rectify the faults locally and in case of failure, should ask NARC to send some technician for repair.</p>	
4.II.2	<p><u>GRAIN VIEWER</u></p> <p>Stored in poor lab. conditions (No dust proofing). Equipment has not been commissioned yet.</p> <p><u>UTILIZATION:</u> Equipment was supplied without black tube light (used to view the grains). Reported that the black tube lights are not available locally so the instrument could not be utilized.</p> <p><u>REMARKS:</u> As per the contract documents black tube light was to be supplied with the equipment. Seems to be short-supplied.</p>	1
4.II.3	<p><u>BIN MASTER SYSTEM</u></p> <p>Could not be inspected since concerned staff (Mr. Anees and Mr. Nazar of Agronomy department) was not available.</p>	1

P J.I. No.	Description and Findings	Qty.
4.II.4	<u>SEED GERMINATOR</u> Three germinators were supplied out of which two are being effectively utilized. The rest one is stored in poor lab. conditions (in the Botany department) and has not been commissioned yet.	3
4.II.5	<u>SEED BLOWER</u> Stored in poor lab. condition. The blowers were still packed in cartons so it could not be checked that whether the specified equipment is supplied or not ?	2
4.II.6	<u>SEED PROPAGATOR</u> Stored in poor lab. conditions (No dust proofing). Equipments have not been commissioned yet.	4
4.II.7	<u>SEED MEASURES</u> Equipment could not be inspected physically since the concerned persons (Mr. Anees and Mr. Nazar of Agronomy department) were not available.	2
4.II.9	<u>CLEANER AND GRADER</u> Stored in poor condition. Not installed yet. <u>INSTALLATION:</u> Installation site not prepared yet. Installation manual also missing. Department requires assistance in installation of the equipment.	1

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P.G. No.	Description and Findings	Qty.
	<p><u>SUGGESTION:</u> The same grader has been installed at RRI, Dokri (Larkana) which is not far away from Quetta. PARC should suggest the RRI Dokri to help install the equipment at Quetta.</p>	
4. II. 10	<p><u>SEED SEPARATOR</u></p> <p>Stored in poor conditions. Not commissioned.</p> <p><u>INSTALLATION AND UTILIZATION:</u> Department has no trained personnel for installation/operation of the equipment. PARC should provide assistance in installation of the equipment and should impart training on operation.</p>	
4. II. 11	<p><u>SEED TREATER, BATCH TYPE</u></p> <p>Properly stored and commissioned. Not being utilized at present. Department has future plans to utilize the equipment.</p>	1
4. II. 12	<p><u>SPRAYER, TRACTOR MOUNTED</u></p> <p>Stored in poor condition.</p> <p><u>ASSEMBLY:</u> The equipment has not been assembled yet since no instruction literature was supplied with the equipment.</p> <p><u>SUGGESTION:</u> The same equipment was supplied to Agriculture Research Institute, Tando Jam, with literature</p>	2

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P.C.I. No.	Description and Findings	Qty.
	<p><u>OBSERVATION:</u> Two under-warranty free services not availed. As per the Ford Motor Company's regulations failure to avail under-warranty free services within the specified time disqualifies the user from claiming under-warranty services.</p>	
4.II.16	<p><u>FORD AGRI. TRACTOR - 72 hp</u> Poorly maintained and being utilized.</p>	1
	<p><u>COMPLAINT:</u> Dark black exhaust smoke reported. Tractor could not be started and smoke could not be observed, since concerned persons were not available. Generally, dark black exhaust smoke is attributed to faulty fuel injection pump, or to piston ring's excessive wear.</p>	
	<p><u>OBSERVATION:</u> Under-warranty free services not availed.</p>	
	<p><u>SUGGESTION:</u> The Quetta representative of M/s. Allied Tractors Ltd. (Ford's dealer in Pakistan) should immediately be contacted and be requested to provide free check-up and to provide free repair services (if needed). Black exhaust smoke (as reported to be observed) is symbol of piston ring wear or faulty F.I.P. and each of the item is repaired at high costs, and should be repaired immediately to avoid further deterioration.</p>	

P.S.I. No.	Description and Findings	Qty.
4.II.17&	<u>GRAIN DRILL</u>	2
4.II.18	<u>GRAIN DRILL - 3 POINT HITCH</u>	2

All the four grain drills are stored in open-space in poor condition and have not been commissioned yet. ARI does not require these drills and wishes to exchange these with some other required equipments (list of desired equipments has already been provided to PARC). The list is enclosed as "Appendix 01-BTN".

SUGGESTION: The Director Agri. Research, NWFP is highly interested in getting these drills since he has certain plans for utilizing such drills in some particular areas of NWFP.

PARC should consider to deliver these drills (which are lying unused at Siryab) to Director Agri. Research, NWFP.

4.II.20	<u>CHIESEL PLOUGH - SPRING MOUNTED</u>	1
---------	--	---

Stored poorly in open space. Not commissioned. Department has no future-plans for utilization.

SUGGESTION: PARC should transfer this costly implement to some other Institute where it could be utilized since department told that the equipment is of no utilization at ARI, Siryab.

BEST AVAILABLE COPY

P.G.I. No.	Description and Findings	Qty.
4. II. 21	<p><u>ROLLER, CULTIPACKER</u></p> <p>Stored in poor condition. Equipment has not been assembled yet.</p> <p><u>TRAINING:</u> Department requires assistance in assembling and training on operation of the equipment.</p>	1
4. II. 22	<p><u>CULTIVATOR, DITCH FOOT</u></p> <p>Stored properly.</p> <p><u>ASSEMBLING:</u> Equipment could not be assembled since main frame was short-supplied. Only the tines and accessories were reported to be supplied.</p> <p><u>OBSERVATION:</u> The inspection team suspect that the main frame is mixed with the items which are stored at Field Machinery Stores and could not be identified. Department was suggested to check the stores and particularly the cartons which are still packed.</p> <p>If the frame is not found in the stores, department should immediately inform the PARC so that the supplier could be asked to supply the missing frame or insurance claim may be lodged.</p>	1
4. II. 23	<p><u>RAKE, FINGER WHEEL</u></p> <p>Properly stored. Not commissioned yet.</p>	

BEST AVAILABLE COPY

P.C I. No.	Description and Findings	Qty.
	<u>TRAINING:</u> Department requires training on installation/ operation of the implement. No literature supplied with the implement.	
4.II.24	<u>MOVER, DISC TYPE</u> Stored in open space. Not commissioned.	1
	<u>TRAINING:</u> Department requires training on installation/ operation of the equipment. No literature was supplied with the implement.	
4.II.25	<u>BALER</u> Stored in open space. Not commissioned yet.	1
	<u>UTILIZATION:</u> Department has no future plans to utilize the implement. Inspection team was told that the equipment is not required at ARI Siryab.	
	<u>SUGGESTION:</u> PARC should consider to transfer the equipment to some other institute where it could be utilized effectively.	
4.II.26	<u>HARROW, SPIKE TOOTH</u> Stored properly. Not commissioned.	1
	<u>TRAINING:</u> Department personnel requires training on installation/ operation of the equipment.	
4.III.2	<u>CALCULATOR</u> Stored properly. Not being utilized.	2

P.G. No.	Description and Findings	Qty.
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OBSERVATION: As per the contract document, Texas Instrument Business Manager, Model 5310 calculators with financial functions were to be supplied. Instead, ordinary arithmetical calculators are supplied which do not have any financial function. The calculator can only perform four typical arithmetical operations and hence can not be used for statistical applications.

REMARKS: Calculators of wrong specifications were supplied. Similar complaint was reported at other Institutes. However, Mr. Liaquat Hussain SPO (PARC) informed during his visit to Techno-Consult's office on June 8, 1989 that the supplier has asked to replace these calculators with scientific functions. The new calculators will be sent to all stations shortly.

4.III.5

OVERHEAD PROJECTOR

Properly stored. Not being utilized.

MISSING: Halogen bulb was to be supplied as an integrated part of the projector but found missing when unpacked. Equipment can not be utilized without halogen-bulb.

SUGGESTION: Department was suggested to procure halogen bulb locally and to utilize the equipment.

COMPLAINT/COMMENTS SHEETS

A.R.I., SIRYAB

COMPLAINT/COMMENTS SHEET NO. 01-BA

Institution: A.R.I., Siryab Location: Entomology Date Insp: 13-14/12/88

P.G.I.No. 4-1.3. Description: Tripple Beam Balance's: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Two tripple-beam balances were to be provided. Instead one tripple-beam balance and a Dial-o-gram balance is supplied. One tripple-beam balance is replaced by a Dial-o-gram balance by the supplier or during the distribution.

Action Taken: _____

Observation: Both, the tripple beam balance and the Dial-o-gram balance are being utilized effectively.

Remarks: The end users are satisfactorily utilizing both the balances and do not want to change the dial-o-gram with another tripple beam balance.

Contractor's Signature: Natool
Counterpart's Signature: [Signature]
Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 02-BA

Institution: A.P.I, Siryab Location _____ Date Insp. Dec. 13-14/88

P.G.I. No. 4-1-19 Description: Freezer (chest type) Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Both chest type freezers are having fractures, cracks, and crack marks on sealing edge.

Action Taken: _____

1

Observation: Similar cracks and crack marks at the same spot are observed on freezers supplied to other provinces.

Remarks: _____

Contractor's Signature: Nasrud
Counterpart's Signature: [Signature]
Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 03-BA

Instt. A.R.I., Siryas Location _____ Date Insp. Dec. 13, 1958

P.G.L.No. 4.I.27 Description: Flame Photometer or: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: The Flame-Photometer supplied requires compressed air & Propane fuel for operation. Neither the compressed air, nor the propane gas is available for utilizing the equipment.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: <u>Nasrath</u>	
Counterpart's Signature: <u>[Signature]</u>	
Instt. Rep.'s Signature: <u>[Signature]</u>	

COMPLAINT/COMMENTS SHEET NO. 04-BA

Institution: A.R.I., Sivvab Location: _____ Date Insp. 13-14/12/88

P.G.L.No. 4.I.29 Description: Kjeldahl Thiro-App Qty: 01

Supplier: _____ Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: As per the contract documents, both the digestion unit & the distillation unit were to be supplied. Instead, only the digestion unit is supplied which is of not-much utilization and is incomplete.

Action Taken: _____

Observation: Same complaint is received from the other Instts./Provinces.

Remarks: Short-supply.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 05-BA

Instt. A.R.I. Siryab Location _____ Date Insp. 13-14/12/88

P.G.L.No. ~~05-BA~~ 4. II. 01 Description: Seed Counter Qty: 03

Supplier: _____ Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Three seed counters were supplied. Two of the three do not pick the seed and so are not working. The rest one's digital counting display does not work, and so not reckoning is possible. All the

Action Taken: None was supplied.

Observation: _____

Remarks: _____

Contractor's Signature: Nataraj
Counterpart's Signature: [Signature]
Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 06-BA

Instd. A.R.I., Sryab Location _____ Date Insp. 13-14/12/88

P.G.L.No. 4-II-II Description: Grain Viewer Qty: 01

Supplier: _____ Ins't Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The equipment was supplied without the specified ~~ultra violet~~ fluorescent tube lights which were not available locally and so can not be utilized. Operation Manual missing. Chemicals mentioned in documents were

Action Taken: not supplied with the eqpt.

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]
 Counterpart's Signature: [Signature]
 Instd. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 87-BA

Instr. A.R.I. Siryab Location _____ Date Insp. 13-14/12/88

P.G.L.No. 4-II-09 Description: Cleaner & Grader : 01

Supplier: _____ Instr. Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The equipment is supplied without any operation/instruction manual and so cant be installed. Deptt. requires assistance for installation of the eqpt from the DORE - / any other Instt.

Action Taken: _____

Observation: The installation site has not been prepared yet for installation/commissioning of the eqpt.

Remarks: The same eqpt. has been installed at R.I. ^{DokRI} ~~Force~~ ~~Team~~ and is being used effectively. ^{DokRI} ~~Force~~ ~~Team~~ can be contacted for assistance in this connection.

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Instr. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. DB - BA

Instt. A.R.I. Siryab Location _____ Date Insp. 13-14/12/80

P.C.I. No. 4- II - 12 Description: Sprayer, Tractor Mount Qty: 02
est.

Supplier: _____ Dist. Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The Installation/operation manual is not supplied with the equipment and so can not be installed. Deptt. requires assistance for installation/operation of the eqpt.

Action Taken: _____

Observation: Accessories not reckoned/checked. The eqpt consists of very small fittings and some short-supply/missing can be reported in the future.

Remarks: Similar unit is supplied to ARI, Tando-Jam (Sind), with Installation/operation manual. Photo copy of the literature can be obtained from ARI Tando-Jam. ~~The~~ ARI Tando-Jam can also assist in installing/operating

Contractor's Signature: <u>Nasir</u>	the eqpt.
Counterpart's Signature: <u>[Signature]</u>	
Instt. Rep.'s Signature: <u>[Signature]</u>	

COMPLAINT/COMMENTS SHEET NO. 09-BA

Institution: A.R.I. Siryab Location: _____ Date Insp. 13-14/12/82

P.G.L. No. 4.II.15 & 4.II.16 Description: Grain Drills Qty: 02 + 02

Supplier: _____ Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: 02 Nos ALMACO heavy duty grain drills and 02 Nos United Farm tool's grain drills were supplied to the Instt. Instt. has no utility of these drills and intend to replace these drills with some other eqpts. (list attached).

Action Taken: _____

Observation: Drills are stored in open-space and are not utilized. Since the drills are high cost and quality equipments, SARC should hand over the same to some other Instt./Province where there can be utilized effectively.

Remarks: _____

Contractor's Signature: <u>Narwal</u>	
Counterpart's Signature: <u>[Signature]</u>	
Institution's Rep.'s Signature: <u>[Signature]</u>	

COMPLAINT/COMMENTS SHEET NO. 10 - BA

Institution: A.R.I., Sisyah Location _____ Date Insp. 13-14/12/85

P.G.L.No. 4.II.15 & 4.II.16 Description: Ford Tractors No. 02

Supplier: _____ Local Rep: Allied Tractors Ltd, Kowdel

Brand/Manuf. FORD Origin: U.S.A.

Nature of Complaint: One Ford Tractor 6610 (75 HP) and one Ford 4610 (65 HP) were supplied, to the instt. without operation Manual/warranty Coupons etc. The 75 HP tractor's Exhaust Smoke is dark black (which is symbol of

action Taken: Injection pump / Piston rings defect.

Observation: As per the Co's Regulation, no under warranty service can be obtained without the warranty Coupons. Also failing to avail or free services within ~~two~~ specified time (60 Hrs or 60 days for 1st service & 300 Hrs or 300 days

Remarks: for 2nd service) disqualifies the owner to lodge warranty claims.

Local ~~of~~ Dealer (ATL Ltd., S. I. T. E., Kowdel) should be contacted immediately.

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 11-BA

Instd. A.R.I., Siryab Location _____ Date Insp. 13-14/12/88

P.G.L.No. 4. II. 22 Description: Cultivator, Dick Part: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: The main frame of the cultivator is short supplied. Only tines and accessories were found by the Instt. and so the implement is incomplete and can not be utilized/commissioned.

Action Taken: _____

Observation: _____

Remarks: Main - frame short supplied.

Contractor's Signature: N. Anand

Counterpart's Signature: [Signature]

Instd. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 12 - BA

Instd. A.R.I., Siryab Location _____ Date Insp. 13-14/12/8

P.G.L.No. 4-II-23 Description: Rake-Finger Wheel Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: The dept. never had such an eqpt. before. Dept. requires training/assistance for Commissioning/operating the eqpt. At present, eqpt. is lying in the store.

Action Taken: _____

Observation: _____

Remarks: F.M.I/PARE should arrange training on the equipment.

Contractor's Signature: <u>[Signature]</u>	
Counterpart's Signature: <u>[Signature]</u>	
Instd. Rep.'s Signature: <u>[Signature]</u>	

COMPLAINT/COMMENTS SHEET NO. 13-BA

Institution: ARI, Siryab Location: _____ Date Insp. 12/14/12/88

P.G.L.No. 4-II-25 Description: Baler Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: U.S.A.

Nature of Complaint: No trained personnel on the Baler is available at the Instt. Deptt. finds the implement of no utility and hence intend to replace the eqpt. with some other eqpts (list of required implments attached)

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]
Counterpart's Signature: [Signature]
Instt. Rep.'s Signature: [Signature]

DIRECTORATE OF AGRICULTURE (RESEARCH) SARIAN-QUETTA.

No:- 288-89/73/22/1/1

Dated:- 27/6 Jan 1988.

To

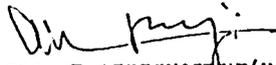
The Director Co-ordination
PARC Islamabad.

Subject:- INSTALLATION OF MANT EQUIPMENT.

Reference our letter No. 4636-40 dated
7th December, 1987, on subject cited above.

It is requested that the equipment received
in this Institute under MANT Project, the arrangements for
its installation through the agents may kindly be made for
which this office had already requested but till to date
none has approached for the same. We are facing difficulties
in its installation, all the equipments are lying idle

This may kindly be done at an early date
and concerned quarter may kindly be urged for early arrangement

o/c

DIRECTOR OF AGRICULTURE (RES)
AGRICULTURE RESEARCH INSTITUTE
SARIAN-QUETTA.

C.C

1. Curtis H. Nissly
Research Agronomist MANT Project Manager,
Agency for International Development (AID) Islamabad.

DIRECTOR OF AGRICULTURE (RES)
AGRICULTURE RESEARCH INSTITUTE
SARIAN-QUETTA.

*P.O. - [unclear]
[unclear]*

S.P.O. (PARC) MAY KINDLY SEE
FOR INFORMATION AND EXPEDITE
ACTION AS DISCUSSED

[Signature]
S.P.O. (PARC)
[unclear]

[Signature]
1-2-1988

By 194/22/1-2-88

23

DIRECTORATE OF AGRICULTURE RESEARCH
AGRICULTURE RESEARCH INSTITUTE
SARIAB
QUETTA

No. 4668/73/87/Rd
Dated Quetta, the 23/ Jan 1988

Received today
JPM
21/1/88
To

Mr: Zafar Hashmi,
Deputy Director, LEM & R Unit,
National Agriculture Research Centre,
I S L A M A B A D

SUBJECT : REPAIR AND INSTALLATION OF LABORATORY
EQUIPMENT

Dear Sir,

In reference to this Office letter No: 4772-73/73/87-I&D, dated 16th December, 1987 on the above cited subject.

It is to inform you that Instruments of Agriculture Chemistry and Soil Fertility Survey and Soil Testing Laboratory including Plant Pathology Laboratory Instruments, at this Institute have been satisfactorily repaired as per list attached and put into working order by Engineer Mr: Mohammad Amin Saleemi and Engineer Mr: Nacemuddin.

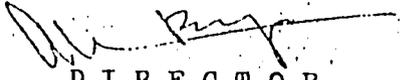
The other instruments (list attached) could not be repaired for want of spare parts. These spare parts presently are not available in the Market because these Instruments are of very old model and out dated.

I am glad to appreciate the efforts which both of these young Engineers took for bringing the Instruments into working order in a very short time, which is really a big achievement and technical help to this Province.

BEST AVAILABLE COPY

246

I further suggest that Mr: Mohd Amin Saleemi and Mr: Naseemuddin Engineers may very kindly again be deputed to this Institute for Installation and operation of Mart Instruments which we have received recently.


D I R E C T O R,
A G R I C U L T U R E R E S E A R C H I N S T I T U T E
S A R I A B - P E S H W A R Q U E T T A

c.c.

- 1) Chairman, Pakistan Agriculture Research Council, Islamabad.
 - 2) Director General, National Agriculture Research Centre, Islamabad.
- for favour of information.

D I R E C T O R,
A G R I C U L T U R E R E S E A R C H I N S T I T U T E,
S A R I A B - P E S H W A R Q U E T T A

25

REPAIRED EQUIPMENTS

<u>S.No:</u>	<u>Name of Articles</u>	<u>Quantity</u>
1)	Clori meter PORTABLE (EEL)	1
2)	HEATING PLATE (GALLEN KAMP)	1
3)	PH METER (ORION RESIANCE) Model 301	2
4)	SHAKER (EDMUND BHULGR)	1
5)	Set-up down transformer 220/110 VAO.	1
6)	Soly BRIDGE RD - 26	1
7)	Spectrophotometer Perkin Elmer Junior 35.	2
8)	Oven (Gallen Kamp)	2
9)	SHAKER Floor Mounted.	1

EQUIPMENTS PENDING FOR WANT OF SPARE PARTS

2:6

<u>S.No:</u>	<u>Name of Articles</u>	<u>Quantity</u>
1)	Flamephotometer (EEC) S/N, 100/1218	1
2)	pH meter PH 9404/100	1
3)	Calori METER (EEL) Portable	1
4)	CAMBRIDGE pH Meter L 383 132	2
5)	Conductivity Meter (Galvano type)	1
6)	Deionized chamber	1
7)	Conductivity Meter (BECKMAN) SD-26	1

~~22~~ 11

AGRICULTURAL RESEARCH INSTITUTE
SARIAB-QUETTA.

No: 4881-87/P&D

Dated Quetta, the 28th Dec: 1987

To

Mr: Zafar-ud-din,
Director Co-ordination,
Pakistan Agricultural Research
Council, P.O. Box 1031,
I S L A M A B A D

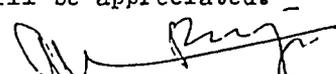
SUBJECT : - INSTALLATION OF EQUIPMENT UNDER
LART PROJECT

Would you kindly refer this office
No: 4636-40/37/87/P&D, dated 7-12-1987.

Due to rush of work and nonexistence
of Photostate machine, we attempted to call an
Engineer from the city to install one of the Photocopiers.
But unfortunately he could not operate the same because
of non existence of Installation Manual and service
Manual.

You are therefore requested to locate
us the AEDICK Company agents in Pakistan for Installation
of their Photostate machine model K-210.

An early action will be appreciated.


(DR: AEDUL HAMEED BAJOI)
D I R E C T O R,
AGRICULTURAL RESEARCH INSTITUTE,
SARIAB - QUETTA

(DR: AEDUL HAMEED BAJOI)
D I R E C T O R
A.R.I., SARIAB-QUETTA

c.c. to the Director General Agriculture, Baluchistan,
Quetta for information.

*Pl. Consult - Mr. Inayatullah
dist. to Mr. Bajoi
this letter
Es 4/1/88.*

*Dr. Hameed -
Sofia*

ARID ZONE RESEARCH INSTITUTE, QUETTA.

Following is the list of equipments inspected found well maintained and being properly utilized.

Code No. P.G.L. No	Description and Findings	Qty
	Tractor Small Size	1
	Heavy Spike Tooth Harrow	1
	Rotovator	2
	Sprayer	4
	Cereal Seeder	2
	Roller	1
	Tractor Medium Size	1
	Duck's Foot Cultivator	2
	Chisel Cultivator	2
	Cereal Seeder	2
	Rake	4
	Cutter Bar	4
	Baler	1
	Threshers (Cereals)	2
	Thresher (Legumes)	2
	Plant and Head Thresher	1
	Seed Cleaner	1
	Seed Treatment Machine	1
	Gravity Separator for Seeds	1
	Backpack Sprayer	4
	Forage Harvester	1
	Ovens	8

Electronic Balances	9
Seed Counters	2
Food Seed Counter	2
Green Area Machine (Leaf)	1
Refrigerators	6
Plant Water Status Console	1
Diffusion Porometer	1
Infrared Thermometer	1
Optical Square	2
pH meter	2
Electrical Conductivity Meter and Cells Digital Conductivity Meter	1
Spectrophotometer	1
Flame Photometer	1
Muffle Furnace	2
Standard Sieves	2
Sieve Shaker	1
Orbital Shaker	1
Freezers	4
Centrifuge	1
Stirring Hot-plate	4
Vacuum Pumps	2
Block Digestor	2
Fume Hood	4
Lab Carts	2
Water Bath	2
Cutting Mill	2
Spring Balance	3

Spring Balance	3
Platform Balance	3
Soxhlet Extraction Apparatus	1
Rolling Lab Ladder	2
Kick-step Stool	2
Stainless Steel Crucible Tongs	4
Heavy Duty Lab/Lift	5
Microscope	2
Slide Projector	1
Projector Screen	2
Camera	1
Camera	5
Overhead Projector	1
Datalogger	6
Large Screen Enclosure Box for Logger	6
Cassette Recorder	3
Clock S T/O Tape Read Card	1
Calibration Source for Datalogger	6
Tipping Bucket Raingauge	6
Temperature Probe	6
Temperature and RH Probe	6
Wetness Sensing Grid	6
Thermocouple Probe	18
Remote Recording Heated Snow Gauge	1
Hygrothermograph	6
Large Thermometer Screen	6
Assmann Psychrometer	6
Raingauges	25

Air Conditioners	4
Planet Jun Drills	2
Single Row Drills	2
Barnstead Still	1
Trailers	4
Video Camera	1
VCR National	1
Colour TV	1
Audio Tape Recorder	1
Herberium Cabinets (Local Item)	7
Glassware Cort	2
Drink Mixer & 12 Cups	1
Drain Rack Melded Steel	2
Long Term Rainfall Recorded	1

Following items were reported to be stolen from the AZRI.

- | | | |
|----|-----------------|---|
| 1. | SLIDE PROJECTOR | 1 |
| 2. | CAMERA | 1 |

ARID ZONE RESEARCH INSTITUTE, QUETTA

Following items were found being not utilized for the reasons mentioned with each item.

P.G.I. No.	Description & Findings	Qty.
1.	<u>BACKPACK SPRAYER</u>	1

As per the contract document, Backpack sprayers were to be supplied. Instead, dusters were supplied which were not required. Department has no utility of these dusters.

REMARKS: Improper supply. The equipments' specifications differ from the specifications laid down in the contract document.

SPECIFICATIONS (As per contract) Motorized knapsack sprayer, petrol motor, 10-15L capacity tank. 10% spares, service kit, operational manual, spare part list, maintenance and repair manual. 1 complete spare set of piping and spray arm with nozzle.

2.	<u>ELECTRONIC BALANCE</u>	5
----	---------------------------	---

Installed and are being utilized properly.

MISSING: As per the installations list, 6 No. balances were to be supplied to AZRI. Reported that only 05 Nos. balances were delivered. One No. balance is reported to be missing.

MISSING: Copy of delivery challan was not available to verify the supply.

P.G.I. No.	Description & Findings	Qty.
3.	<u>MUFFLE FURNACE</u>	1

Stored properly but not commissioned.

UTILIZATION: The equipment has not been utilized yet.

MISSING: Department reported that when the equipment was received, the thermocouple was found missing.

PREVIOUS ACTION: The complaint was immediately communicated to PARC authorities. No acknowledgment received from PARC.

REMARKS: Equipment can not be utilized until and unless a thermocouple is installed. PARC should take immediate action and ask the supplier to supply the missing item.

4.	<u>FUME HOOD</u>	2
----	------------------	---

One of the fume hoods supplied found well maintained and being utilized.

The other one found to be properly stored and non-operational. Department reported that the blower was found defective when the equipment was commissioned.

PREVIOUS ACTION: Institutions technician tried to repair the blower but could not repair it.

REMARKS: (1) The equipment is highly required by the department. NARC/PARC can help in repairing the blower.

P.G.I. No.	Description & Findings	Qty.
	(2) Supplier can arrange under-warranty repair of the equipment through its local dealer (if any).	

5. MICROSCOPE STEREOSCOPIC ZOOM 1

As per the bid documents, spare bulbs were to be supplied with the microscope. The microscope of proper specifications was supplied without spare bulbs. Actual contract document was not available to verify the complaint.

UTILIZATION: The microscope is properly maintained and being utilized.

COMPLAINT/COMMENTS SHEETS

A.Z.R.I., QUETTA

COMPLAINT/COMMENTS SHEET NO. 01-AZRI

Instt. AZRI, Quetta Location _____ Date Insp. 12/15/58

P.G.L.No. _____ Description: Backpack Sprayer : : ci

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Instead of Backpack Sprayers, Dusters were supplied.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: Nasir

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 02 - AZRI

Institution: AZRI, Quetta Location _____ Date Insp. 12/15/88

P.G.L.No. _____ Description: Muffle Furnace Qty: 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: When un-packed, thermocouple found missing.

Action Taken: ~~PARC has already been reported about the missing thermocouple by the Instt.~~

The Complaint has already been communicated to the PARC authorities.

Observation: The eqpt. is not being utilized since the thermocouple is missing and no temp. sensing is possible.

Remarks: _____

Contractor's Signature: Aslam
Counterpart's Signature: [Signature]
Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 03 - AZRI

Institution: AZRI, Quetta Location _____ Date Insp. 12/15/88

P.G.L.No. _____ Description: Fume Hood. Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Two Nos fume hoods were supplied to the Instt. One is working perfectly. The other one is non-operational since very beginning. The Blower of a fume hood does not work and so can't be utilized.

Action Taken: The local technician/Electrician tried to Rectify the defect but could not succeed.

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Institution Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 04-AZR1

Instt. AZR1, Quetta Location _____ Date Insp. 12/15/88

P.G.L.No. _____ Description: Microscope (Stenoscopic; Zoom) 01

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: As per the bid document, Spare bulbs were to be supplied with the stenoscopic zoom microscope but were not supplied.

Action Taken: _____

Observation: Short supply.

Remarks: _____

Contractor's Signature: Nisood
Counterpart's Signature: Sunny
Instt. Rep.'s Signature: [Signature]

COMPLAINT/COMMENTS SHEET NO. 05 - A2R1

Instt. A2R1, Quetta Location _____ Date Insp. _____

P.G.L.No. _____ Description: Precision Oven Qty: 02

Supplier: _____ Local Rep: _____

Brand/Manuf. _____ Origin: _____

Nature of Complaint: Thermostatic control system not working. ~~is~~ the supplied without temperature indicator. Not being used for the reasons mentioned.

Action Taken: _____

Observation: _____

Remarks: _____

Contractor's Signature: [Signature]

Counterpart's Signature: [Signature]

Instt. Rep.'s Signature: _____

1. One electronic balance no 5303 is missing.
- 2, Conductivity meter. - This instrument is without temp control & we have to use one other water bath for the control of temperature.
- 3, Spectrophotometer is supplied without extra filter & phototubes due to which it is not possible to use for soil & plant analysis.

4, Muffle Furnace received without condenser & repaired locally.

Cassette recorders. Two are available & one is missing.

~~of 1000 square~~

~~Signature~~
15/12/88

Asad Raheem

Dec. 15, 1988

Signature
15/12/88

- ① One Camera Nikon is missing.
- ② One slide Projector is missing

Calicut
 Mr. Bilal, 15/12
 Manager.

Calicut
 15/12
 Mirza Shahid Akbar
 Sr. Photographer

Calicut
 15/12/84
 Mirza Shahid Akbar

Calicut
 (M.A.S. D. J. K. A. N.)

A2 101, Quetta.

Two big ones are not working from the date of arrival

Calicut

Calicut
 verified
 15/12/84

Calicut
 15/12/84

APPENDIX - 1

DETAILS OF TRAINING PROVIDED BY PERKEN ELMER

A. DATES: October 22, 1988 to October 27, 1988 (06 Days)

B. VENUE: Faisalabad

C. INSTRUCTOR: Mr. Burno Cassetta, Perkin Elmer (U.S.A)

D. EQUIPMENT ON WHICH TRAINING WAS PROVIDED:

1. Atomic Absorption Spectrophotometer - AAS - 5100
2. Gas Chromatograph - GC Sigma 2000
3. UV/VIS Spectrophotometer - Lambda 4 B

E. PARTICULARS OF PARTICIPANTS:

1. Dr. Mahmud Ayaz Wahla, Associate Professor, Entomology, University of Agriculture, Faisalabad.
2. Dr. Shamshad Akhtar, Associate Professor, Entomology, University of Agriculture, Faisalabad.
3. Mr. Altaf Hussain Sabri, Lecturer, Entomology, University of Agriculture, Faisalabad.
4. Dr. Mohammad Ibrahim, Agriculture Chemist, Ayub Agriculture Research Institute, Faisalabad.
5. Mr. Mohammad Saeed, Agriculture Chemist, Ayub Agriculture Research Institute, Faisalabad.
6. Mr. Mohammad Afzal, ARO, Rice Research Institute, Kala Shah Kaku.
7. Mr. Mohammad Ramzan, ARO, Rice Research Institute, Kala Shah Kaku.
8. Dr. Mohammad Roshan Waggan, Associate Professor, Department of Soil Sciences, Sind Agriculture University, Tando Jam.
9. Dr. Ghulam Hussain Memon, Associate Professor, Department of Soil Sciences, Sind Agriculture University, Tando Jam.

10. Mr. Fazallih Bughfo, ARO, Rice Research Institute, Dokri.
11. Mr. Naimatullah Abro, ARO, Rice Research Institute, Dokri.
12. Mr. Mohammad Rashid, ATO, Lab Equipment Maintenance & Repair Unit, NARC, Islamabad.
13. Mr. Mohammad Ilyas, ATO, Lab Equipment Maintenance & Repair Unit, NARC, Islamabad.
14. Mr. Anser Mahmood, Senior Technician, Lab Equipment Maintenance & Repair Unit, NARC, Islamabad.
15. Mr. Zafar Hameed Hashmi, Course Coordinator, Deputy Director, Labs & Equip, NARC, Islamabad.
16. Dr. Tahir Hussain
17. Mr. Mansoor-ul-Hasan
18. Mr. Anjum Sohail
19. Mr. Muhammad Ishaq
20. Dr. Rana Muhammad Ashfaq

APPENDIX - 2

DETAILS OF EQUIPMENT NOT SUPPLIED AS PER SPECIFICATION

A. N.W.F.P.

1. II. 11 KJELDHEL MICRO APPARATUS:

1

Only the digestion unit was supplied whereas, the complete set of micro apparatus (consisting of digestion & distillation units) was to be supplied. Mr. Liyaquat Hussain, SPO (PARC) informed during his visit to Techno-Consult's office on June 8, 1989 that the supplier of this equipment i.e., M/s. "PEM SCIENCE CORP." has been contacted who has agreed to send the missing parts to all the provinces.

Specifications of the equipment (As per contract):

Kjeldahl, Micro Apparatus, complete 6-place Labconco 60300. For six 30 to 100 ml flasks on individual 200 watt electric heater; two rear brackets for glass manifold (to be provided); each station consists of tubular heater element and stainless steel cup; each station operable by infinite heat control with variable input 20 to 100% capacity, includes six 100 ml flasks. VWR 1984-85 Cat. No. 51054-007 or equivalent. Distillation Apparatus. Micro Kjeldahl. Boiling flask capacity 500 ml digestion flask capacity 50 ml Made of borosilicate glass. VWR Cat. No. 51100-002 or equal. Flasks, Kjeldahl, Max. 100 ml, capacity 210 mm high. VWR Cat. No. 29431-062. One case of 24 flasks. Code No. N-I-F LABCONCO 60300-01

B. PUNJAB

2.I.7 KJELDHEL MICRO APPARATUS:

4

Only the digestion unit was supplied whereas, the complete set of micro apparatus (Consisting of a digestion unit and a distillation unit) was to be supplied. Mr. Liaquat Hussain, SPO (PARC) informed during his visit to Techno-Consult's office on June 8, 1989 that the supplier of this equipment i.e., M/S. "PEM SCIENCE CORP." has been contacted who has agreed to send the missing parts to all the provinces.

Specification of the equipment (As per contract):

KJELDAHL, Micro Apparatus, complete 6-place. Labconco 60300-01 For six 30 to 100 ml flasks on individual 200 watt electric heater; two rear brackets for glass manifold (to be provided); each station consists of tubular heater element and stainless steel cup; each station operable by infinite heat control with variable input 20 to 100% capacity; includes six 100 ml flasks.

Distillation Apparatus. Micro Kjeldahl. Boiling flask capacity 500 ml, digestion flask cap. 50 ml. Made of borosilicate glass. VWR Cat. No. 51100-002. Flasks, Kjeldahl, Mimax. 100 ml. VWR Cat. No. 29432-062. One case of 24 flasks. For 220/230 V single phase 50 Hz. Labconco 60300-01 Code Nos. P-5-C, P-5-D, P-5-M, P-5-O, P-6-G, P-6-R.

2.V.9 SOLDER SUCKER 25 W:

1

Instead of solder suckers, solder irons was (1) supplied. However, in this regards Mr. Liaquat Hussain, SPO (PARC)

was contacted on telephone on June 19, 1989 who informed that the supplier of this equipment has agreed to send the missing solder sucker.

Specification of the equipment (As per contract)

SOLDER SUCKER 25 Watts 220/230 V, A.C , 50 Hz, single phase.

Code No. P-5-J. ENDECO.

2.V.10 SOLDER SUCKER 40 W:

Instead of solder sucker, solder iron was supplied. However the supplier has agreed to supply the missing 40 W solder sucker. Specification of the equipment (As per contract)

SOLDER SUCKER 40 Watts 220/230 V, A.C. 50 Hz, single phase.

Code No. P-5-J.

C. S I N D:

3.I.4 KJELDAHL MICRO APPARATUS: 5

Only the digestion unit was supplied whereas, complete micro apparatus (Consisting of distillation and digestion units) was to be supplied. Mr. Liaquat Hussain, SPO (PARC) informed during his visit to Techno-Consult's office on June 8, 1989 that the supplier of this equipment i.e., M/S. "PEM SCIENCE CORP." has been contacted who has agreed to send the missing parts to all the provinces.

Specification of the equipment (As per contract):

KJELDAHL, MICRO APPARATUS, complete 6 places. LABCONCO 60300. For six 30 to 100 ml flasks on individual 200 Watt electric heater; two rear brackets for glass manifold (to be provided); each station consists of tubular heater element and stainless steel cup; each station operable by infinite heat control with variable input 20 to 100% capacity, includes six 100 ml flasks. LABCONCO 60 300-01.

FLASKS, KJELDAHL, MIMAX, 100 ml capacity 210 mm high. VWR Cat. No. 29431-062. One case of 24 flasks. Code No. S-I-C, S-I-O, S-I-R, S-2-C, S-2-2.

3.V.7 CALCULATOR, STATISTICS: 4

TEXAS INSTRUMENT, ordinary type, arithmetic function calculator, were supplied. As per the contract documents, statistics calculators were to be supplied. Mr. Liaquat Hussain, SPO (PARC) informed that the supplier has agreed to replace these calculators with scientific functions.

Specifications of the equipment (As per contract)

CALCULATOR, Statistics, Table Model 220 V, 50 Hz, printing and 12 digit display. Code No. S-2-R (4). TEXAS INSTRUMENTS BUSINESS MANAGER MCD 5310 WITH FINANCIAL FUNCTIONS.

3.I.11 BALANCE SPRING (DIAL TYPE): 1

As per the contract documents, SEEBURO brand, spring dial type balance was to be supplied. Instead, PELOUE brand, ordinary type, having, bag-weighing balance has been supplied. The supply is not as per the contract documents. In this regard Mr. Liaquat, SPO (PARC) was contacted on telephone on June 19, 1989 who informed that the supplier of balance spring has agreed to send the equipment as per the specifications.

Specification of the equipment (As per contract):

Balance spring (Dial Type) range 30-KG x 100 g. Single Pointer. Finished with gray hammerloid baked enamel. SEEDBURO MODEL S-30 Code No. S-1-F, S-1-K.

D. BALUCHISTAN:

4.I.29 KJELDHEL MICRO APPARATUS: 1

Only the digestion unit was supplied whereas, as per the contract, both the distillation unit and the digestion unit were to be supplied. Mr. Liaquat Hussain, SPO (PARC) informed during his visit to Techno-Consult's office on June 8, 1989 that the supplier of this equipment i.e., M/S. "PEM SCIENCE CORP." has been contacted who has agreed to send the missing parts to all the provinces.

Specifications of the equipment (As per contract)

KJELDAHL, MICRO APPARATUS, COMPLETE 6-PLACE LABCONCO 60300. For six 30 to 100% ml flasks on individual 200 Watt electric heater; two rear brackets for glass manifold (to be provided): each station consists of tubular heater element and stainless steel cup; each station operable by infinite heat control with variable input 20 to 100% capacity; includes six 100 ml flasks.

VWR 1984-85 Cat. No. 51054-007 or equivalent. DISTILLATION APPARATUS. Micro Kjeldahl. Boiling flask capacity 500 ml, digestion flask capacity 50 ml. Made of borosilicate glass. VWR Cat. No. 51100-002 or equal Flasks, Kjeldahl, Mimax. 100 ml. capacity 210 mm high. VWR Cat. No. 29432-062. One case of 24 flasks Code No. B-2-F. LABCONCO 60 300-01.

4.III.2 CALCULATOR:

As per the contract document, TEXAS Instrument Business Manager, model 5310 calculators were to be supplied. Instead, ordinary arithmetical calculators were supplied. Mr. Liaquat Hussain, SPO (PARC) informed that the supplier of these calculators has been contacted who has agreed to replace these calculators with scientific functions.

Specification of the equipment (As per contract)

CALCULATOR:

Statistical Analysis, Printing, Table Model, Electric operated: 220/ 230 VAC, single phase 50 Hz. TEXAS INSTRUMENT BUSINESS MANAGER MOX 5310 WITH FINANCIAL FUNCTIONS CODE NO. B-2-C (2).

E. AZRI

01 BACKPACK SPRAYER:

As per the contract document, Backpack sprayer was to be supplied whereas, dusters were supplied which were not required. In this regard Mr. Liaquat, SPO (PARC) was contacted on telephone on June 19, 1989 who informed that PARC was not aware that the BACKPACK SPRAYER has not been supplied to Baluchistan. Mr. Liaquat also informed that the PARC will contact the supplier to ensure the proper supply of the missing equipment.

Specification of the equipment (As per contract):

Motorized knapsack sprayer, petrol motor, 10-15L capacity tank. 10% spares, service kit, operational manual, spare part list, maintenance and repair manual, 1 complete spare set of piping and spray arm with nozzle.

Total Supply to Punjab..

APPENDIX-3(A)

Ayub Agri. Res. Institute, Faisalabad.	5,92,325.70
Kala Shah Kaku.	65,755.22
Agriculture University, Faisalabad.	7,72,895.47
Grand Total:	<hr/> 14,56,976.39
	1.45(M)

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LIST OF EQUIPMENT PUNJAB PROVINCE UNDER MART PROJECT
ISSUE TO AYUB AGRI. RES. INST. FAISALABAD

S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS Issue voucher No.
1.	24-11-87	2.I.01	Kjeldahl Micro Apparatus Complete	2	2	2,075.00	Per Sciences	2409
2.	07-06-88	2.I.09	Mill Experimental Buhler Type Computer	1	1	69,870.00	"	2409
3.	24.11.87	2.I.14	Stereoscopic Zoom Microscope	2	2	3,960.00	"	2409
4.	"	2.I.18	Autoclave (Sterlizer)	1	1	2,588.10	"	2409
5.	"	2.I.20	Flame Photometer IL 943	1	1	12,765.60	"	2409
6.	"	2.I.23	Oven Drying	2	2	3,380.00	"	2409
7.	"	2.II.01	Kelway Soil Acidity and Moisture Tester	2	2	249.40	"	2409
8.	"	2.II.05	Humidifier Model VF2	1	1	2,079.00	"	2409
9.	"	2.II.07	Bio-Safe Hood complete	2	2	10,890.00	"	2409
10.	"	2.II.08	Chamber Growth	1	1	4,300.00	"	2409
11.	"	2.II.12	Automatic Area Meter	1	1	10,972.00	"	2409
12.	"	2.VII.02	Incubator CO2 Bench Type	1	1	3,530.00	"	2409
13.	"	3.VII.03	Fibre Strength Tester	1	1	2,415.00	"	2409
14.	"	2.VII.04	Shaker Orbital 3591	1	1	3,661.00	"	2409
15.		2.VII.07	Fibre Length Parameter Complete	1	1	66,964.00	"	
16.		2.VII.08	Moisture Meter	1	-	1,263.40	"	Not supply
17.	24-11-87	2.VII.09	Sahadograph Balance	1	1	1,694.00	"	2409
18.	"	2.VII.14	Mixer Dough pin type	1	1	3,468.00	"	2409
19.		2.VII.05	Plot Seeder	5	-	36,695.00	"	Not supply
20.	24-11-87	2.VIII.08	Push Cone Seeder	23	23	8,728.50	"	2409
21.		2.IX.01	Rotary Backing Oven	1	1	22,503.00	"	
22.	07-06-88	2.IX.06	Barley Pearler	1	1	2,000.00	"	

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S. NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS / Issue voucher No.
23.	24-11-87	2.IX.07	Fermentation Cabinet	1	1	12,257.00	Pem Sciences	2410
24.	07-06-88	2.IX.11	Protein Analyzer Complete	1	1	10,475.00	"	2219
25.	24-11-87	2.XI.1	Air Conditioner Room	5	5	3,018.75	"	2428
26.	03-02-86	2.I.02	Analytical Balance Model-2200	1	1	1,753.90	Fisher	2262
27.	"	2.I.10	Fibre Glass Fumehood	1	1	1,805.00	"	2450
28.		2.I.29	Dual Range Electronic Top Loading Balance	6	6	5,274.90	"	Short supplied
29.	02-02-88	2.VII.06	Lab-Line Biotronette	2	2	4,408.00	"	2262
30.	"	2.VII.10	Bright Field Microscope	1	1	2,537.80	"	2262
31.	27-07-88	2.8.4	Vogel Planter 3-row	10	10	24,650.00	Dalton Cooper	1234
32.	"	2.8.7-A	Cyclone Heavy duty stainless steel	34	34	10,200.00	"	1241-1242
33.	10-11-87	2.8.9	Plot Combine	5	5	1,49,500.00	"	1234
34.	10-11-87	2.8.10	Seed Counter	1	1	6,905.00	"	Sarcodha -1301
35.	28-07-87	2.8.11	Cleaner and Grader	8	8	27,800.00	"	1241-42&1301
36.	"	2.8.13	Sprayer Ultra Low Volume	2	2	2,304.00	"	1241
37.	26-07-87	2.VI.1	Atomic Absorption Spectrophotometer Series 5000 Model 5100 Complete with access.	1	1	83,154.22	Perkin Elmer	1231 to 1235
38.	03-02-88	2.1.21	Precision Bench Top Incubator	1	1	650.00	New World	2154
39.	"	2.VII.12	Freeze Dryer Manifold	1	1	3,800.00	"	2154
40.	03-02-88	2.III.3	TJ-6R Refrigerated Centrifuge Complete with access.	1	1	8,454.30	Beckman	2281
41.	02-02-88	2.III.9	Microcomputer pH Meter Complete with access.	2	2	6,510.00	"	2278

Grand Total: 5,65,457.85
 Short Skipped: 5,274.90
 Short Supplied: 37,958.40
 Total Subtotal: 5,60,182.55

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LIST OF EQUIPMENT PUNJAB PROVINCE UNDER MART PROJECT
ISSUE TO RICE RES. INST. KALA SHAH KAKU

S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDFRED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS / Issue No.
1.	03-02-88	2.VI.1	Atomic Absorption Spectrophotometer Series 5000 Model 5100 with access.	1	1	83,154.22	Perkin Elmer	No. 1075 to 1230

ISSUE TO AGRI. RES. INST. MULTAN

1.	02-02-68	2.V.14	Oscilloscope	1	1	940.00	Per. Sciences	2267
2.	24-11-67	2.V.4	Digital Multimeter 4-1/2	1	1	1,661.00	"	2267
3.		2.V.15A&B	Strain Guage Analyzer	50	-	352.50	"	Not supply
4.		2.V.16A	Transducer Cement	2	-	160.00	"	"
		" B	Surface Cleanser	2	-	78.00	"	"
		" C	Surface Etching Primer	2	-	60.00	"	"
		" D	Surface Neutralizer	2	-	60.00	"	"
		" E	Channel Multi Monitorlogger	2	-		"	"
5.		2.V.17	Computer Communications VIA	1	-	3,736.00	"	"

Total:	<u>90,201.72</u>
Short Supply:	<u>4,446.50</u>
Total Supply:	<u>85,755.22</u>

ISSUE TO

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LIST OF EQUIPMENT PUNJAB PROVINCE UNDER MART PROJECT
ISSUE TO AGRI. UNIV. FAISALABAD

S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/Issue Voucher No.
1.	24-11-87	2.I.01	Oven Backing, Teel type	2	2	20,034.00	Per. Sciences	2404
2.	"	2.I.05	Milk Acidity Tester	1	1	108.15	"	2404
3.	"	2.I.07	Kjeldahl Micro Apparatus Comp.	2	2	2,075.00	"	2404
4.	07-06-88	2.I.09	Mill Experimental Buhler Type	1	1	69,870.00	"	2219
5.	24-11-87	2.I.13	Autoclave (Sterilizer)	4	4	10,352.40	"	2404
6.	"	2.I.20	Flame Photometer, IL 943	2	2	25,531.20	"	2404
7.	07-06-88	2.I.22	Electrophoresis Kit	1	1	1,370.75	"	2219
8.	24-11-87	2.I.23	Oven Drying	1	1	1,690.00	"	2404
9.	"	2.II.01	Kelway Soil Acidity & Moisture Tester	2	2	248.40	"	2404
10.	"	2.II.02	Balance Semi Micro Electronic	1	1	2,425.00	"	2405
11.	"	2.II.05	Humidifier, Model VF2	1	1	2,079.00	"	2405
12.	"	2.II.07	Bio-Safe Hood, Complete	2	2	10,990.00	"	2405
13.	"	2.II.08	Chamber, Growth	3	3	12,900.00	"	2405
14.	23-11-87	2.II.10	Refractometer Brix	2	2	494.00	"	2405
15.	24-11-87	2.II.12	Leaf Area Meter Automatic	2	2	21,745.00	"	2405
16.	"	2.II.14	Polarimeter SR-6	1	1	1,820.00	"	2405
17.	"	2.II.15	Air Compressor Portable	1	1	360.00	"	2405
18.	"	2.II.19	Spatula Electric	1	1	276.00	"	2405
19.	07-06-88	2.II.23	Chromist System	2	2	134.80	"	2219
20.	24-11-87	2.II.27	Viscometer Savbolt 4 Unit	2	2	7,073.80	"	2406
21.	"	2.II.28	Lovibond Comparator Tintometer Colorimeter with access.	1	1	6,000.00	"	2406
22.	"	2.IV.05	Basic Plutant Factor Kit	3	-	1,870.55	"	From Supplier
23.	24-11-87	2.IV.07	Tlc Pre-Coated Glass Plates	10	10	2,836.60	"	2406
						<u>5,92,769.45</u>		

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL PRICE \$	NAME OF SUPPLIER	REMARKS / Tasse Voucher No.
24.	07-06-88	2.IV.09	Refrigerator Flammable	1	1	1,799.00	Pem Sciences	2228
25.	24-11-87	2.IV.11	Rotavapor Model R 151	1	1	15,890.00	"	2228
26.		2.IV.17	Gauge Thermocouple Vacuum Portable	1	-	750.00	"	Short supply
27.	24-11-87	2.IV.18	Vacuum Oven 1430	2	2	4,100.00	"	2227
28.	"	2.IV.22	Probe Lead Extension	2	2	72.20	"	2227
29.	"	2.IV.27	Transparency Flim Roll	1	1	7.40	"	2227
30.	"	2.V.1	Oscilloscope with thre channel	1	1	2,074.00	"	2425
31.	"	2.V.2	Automatic Oil Winding Machine	1	1	16,210.00	"	2425
32.	"	2.V.3	Digital type Illumination Meter	1	1	816.00	"	2425
33.	"	2.V.4	Digital Multimeter 4-1/2	1	1	1,661.00	"	2425
34.	"	2.V.5	Digital Thermometer	1	1	310.00	"	2425
35.	"	2.V.6	Engraving Machine	1	1	3,420.00	"	2425
36.	"	2.V.7	Punching and Riveting Machine with access	1	1	8,813.30	"	2425
37.	"	2.V.8	Scroll Saw Variable 24"	1	1	2,640.00	"	2425
38.	"	2.V.9	Solder Sucker 25 Wats	1	1	74.00	"	2425
39.	"	2.V.10	Solder Sucker 40 Wats	1	1	112.00	"	2426
40.	"	2.V.11	Milling Machine with Dividing Head	1	1	30,935.00	"	2426
41.	"	2.V.12	Tool Grinder Complete	1	1	4,265.50	"	2426
42.	"	2.V.13	Instrument Repair Kit	2	2	1,020.00	"	2426
43.	"	2.XI.1	Air Conditioner Room	3	3	1,811.25	"	2426
44.	03-02-88	2.I.02	Electronic Analytical Balance	4	4	7,015.60	Fisher	2227
45.	"	2.I.03	Muffle Furnace Chamber	3	3	1,484.25	"	2227
46.	"	2.I.06	Lab-Line Multi Unit Heater with access	4	4	10,260.80	"	2227
						<u>1,15,541.30</u>		

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS / Issue V.No.
47.	03-02-88	2.I.10	Fibre Glass Fumehood	1	1	1,805.00	Fisher	2445
48.		2.I.15	Microscope Phase Contrast	3	-	11,591.85	"	Not supplied
50.		2.I.17 ^a	Microburet 1/100 ml	6	-	576.90	"	Not supplied
51.		2.I.17 ^B	Microburet 2/100 ml	6	-	576.90	"	Not supplied
52.	03-02-88	2.I.19	General purpose mill	2	2	1,860.80	"	2445
53.	"	2.I.24	Spectroline High-Intensity Hand Lam with Transformer	1	1	874.00	"	2445
54.		2.I.25	Versa-Bath	2	-	900.00	"	Short supply
55.	03-02-88	2.I.26	Tissue Flotation Bath	1	1	444.70	"	2446
56.	"	2.I.27	Still Water Megapure with access.	4	4	5,268.60	"	2446
57.		2.I.29	Dual Range Top Loading Balance	2	-	1,758.30	"	Short supply
58.	03-02-88	2.II.03	Sterezoom Microscope with access.	1	1	1,937.10	"	2446
59.	"	2.II.13	Light Meter	1	1	65.80	"	2297
60.	"	2.II.21	Gravity Balance	1	1	1,191.65	"	2246
61.	"	2.II.22	Hydrogenation Apparatus	3	3	4,324.50	"	2446
62.	"	2.II.25	Crude Fibre Apparatus complete	1	1	3,872.65	"	2446
63.		2.II.29	Karl Fisher Titrimeter	1	-	1,223.50	"	Short supply
64.		2.II.29	Accessries complete	1	1	652.40	"	2247-48
65.	03-02-88	2.IV.01	Chromatograhay kit	7	7	2,933.05	"	2448
66.	"	2.IV.02	Binocular	4	4	151.20	"	2261
67.	"	2.IV.03	Telescope complete	1	1	28.40	"	2261
68.	"	2.IV.04	Water Test Kft Complete	5	5	918.00	"	2261
69.	"	2.IV.08	Orbital Shaking Bath	1	1	2,151.75	"	2248
70.		2.IV.10	Dyna-Mix Stirrer	1	-	482.40	"	Short supply
71.	03-02-88	2.IV.12	Photosynthesis Apparatus Complete	4	4	<u>180.00</u> 1,249.35	"	2261

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ INVENTORY NO.
72.	03-02-88	2.IV.15	Low Temperature Incubator	1	1	4,249.30	Fisher	2449
73.		2.IV.16	Microscribe Recorders	1	-	1,243.65	"	Short supply
74.	03-02-88	2.IV.19	Belt Driven Pump with access.	1	1	2,699.20	"	2449
75.		2.IV.21	Tubular Pointed Metal Probe.	2	-	112.10	"	Short supply
76.		2.IV.25	Anemometer determine both	1	-	378.00	"	Short supply
77.		2.IV.26	Radiometer Model 65A	1	-	1,469.80	"	Short supply
78.	27-07-87	2.8.1	Husker Sheller Portable	1	1	2,900.00	Dalton Cooper	1243
79.	03-02-88	2.8.2	Seed Germinator Single Chamber	2	2	16,820.00	"	1233
80.	27-07-87	2.8.3	Precision Divider	1	1	2,970.00	"	1243
81.		2.1.12	Spectrophotometer Model 35 with access.	4	4	9,010.00	Perkin Elmer	1237 to 40
82.	26-07-87	2.III.7	UV Spectrophotometer Complete with access.	1	1	18,782.00	"	1214
83.	26-07-87	2.VI.1	Atomic Absorption Spectrophotometer Series 5000 Model 5100 with access.	1	1	83,154.22	"	1230
84.	27-07-87	2.VI.2	Sigma 2000 230 V (with access)	1	1	38,999.35	"	1221
85.	03-02-88	2.1.01	Freezer Chest Type	3	3	1,515.00	New World	2152
86.	"	2.1.13	Oxygen Bomb	1	1	2,000.00	"	2152
87.	"	2.1.16	Refrigerator Upright	5	5	2,750.00	"	2152
88.	"	2.1.21	Precision Bench Top Incubator	1	1	650.00	"	2152
89.	"	2.1.28	Precision Osmoneter Model 5004	1	1	2,870.00	"	2152
90.	"	2.1.30	Nitrogen Freezer Nasco	5	5	3,400.00	"	2152
91.	"	2.II.04	Orbital Shaker	2	2	5,000.00	"	2152
92.	"	2.II.09	Student Microscope	10	10	4,000.00	"	2152
93.	"	2.II.11	Conductivity Meter	2	2	1,000.00	"	2152
94.	"	2.II.16	Vacuum Pump Precision Model	2	2	1,550.00	"	2152

4,000,742.62

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS / ISSUE VOUCHER NO.
95.	03-02-88	2.II.26	Carver Press	1	1	900.00	New World	2153
96.	"	2.II.30	Microtome Precision Rotary	2	2	6,500.00	"	2153
97.	"	2.IV.06	Chromatographic Colume	6	6	1,650.00	"	2153
98.	"	2.IV.13	Osmosis & Diffusion Kit	4	4	720.00	"	2153
99.	"	2.IV.14	Sliding Heavy Duty Microtome	1	1	5,450.00	"	2153
100.		2.III.1	Advanced Gradient HPL System Complete	1	1	39,346.00	Beckman	2190
101	03-02-88	2.III.2	Microcomputer pH Meter with access.	7	7	22,670.20	"	2272
102.	"	2.III.3	TJ-6R Table Top Refrigerated Centrifuge	1	1	2,454.30	"	2280
103.	"	2.III.4	Apparise Densitometer with optional access.	1	1	19,888.60	"	2270
104.		2.III.5	PN 334584 Bleed valve assy	2	-	1,334.00		Not supply
			PN 807842 Pinch Clamp	2	2	52.00	"	2287
			PN 343228 Filter disc pk 10	2	2	85.40	"	2287
			PN 339429 Silicon photocell	2	-	648.00	"	Not supply
			PN 331288 Cuvette assy 2.2mm	2	-	1,458.00	"	Not supply
			PN 331289 Cuvette assy 6.6mm	2	-	1,130.00	"	Not supply
			Pn 313380 Coil assy, reaction bath2	-	-	1,621.00	"	Not supply
			PN 312242 Slide valve	5	-	3,555.00	"	Not supply
			PN 340594 Ball and seat, s/s	4	4	384.00	"	2287
			PN 312936 Tubing connector	5	-	1,122.50	"	Not supply
			PN 313017 Guide sleeve assy	2	2	614.00	"	2287
			PN 330672 Saphire pump piston	2	2	532.00	"	2287
			PN 206161 Stopper	5	5	480.00	"	2287

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DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE V.NO.
	2.III.5	PN 306683 Teflon Tubing	5	5	6.00	Beckman	2288
		22-040050 Silicone insert	2	-	10.00	"	Not supply
		PN 858453 Ink pads red	2	-	126.00	"	"
		PN 858451 Ink pads brown	2	-	126.00	"	"
		PN 858452 Ink pads green	2	-	126.00	"	"
		PN 339064 Resin Wl 50 g	2	2	3,520.00	"	2288
		PN 339065 Resin Wl 10g	2	2	764.00	"	2288
		PN 339064 Resin Wl 50g	1	1	1,760.00	"	2288
		PN 338088 Calibration stds	4	4	332.00	"	2288
		PN 339064 Resin Wl 50g	1	1	1,760.00	"	2288
		PN 338016 Ninhydrin 500g	4	4	1,380.00	"	2288
		NPN 1077544 Octanoic acid 1 kg	1	-	144.00	"	Not supplied
		NPN CS285-1 Brij 35 30l	2	-	21.00	"	"
		NPN T142-500 Stannous chl. 500g	1	-	75.00	"	"
		NPN E182-4 Ethylene glycolmonomethy	5	-	183.00	"	"
		PN 123114 pHl 21	1	1	651.00	"	2287
		PN 039836 Comb, elect,	1	1	82.00	"	2287
		PN 039834 Test tube elect	1	1	123.00	"	2287
		PN 598115 ATC probe	1	1	99.00	"	2287
		PN 597578 Cable	1	1	32.00	"	2287
		PN 003011 Buffers, assorted	1	1	62.00	"	2287
					<u>11,387.00</u>		

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LIST OF EQUIPMENT SIND PROVINCE UNDER MART PROJECT
ISSUE TO AGRICULTURE UNIVERSITY, TANDOJAM

NO	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
1.	29-11-87	3.I.01	Flame photometer Complete	2	2	24,747.00	Per Sciences	2411
2.	29-11-87	3.I.04	Kjeldahl Micro Appratus Complete	3	3	3,076.50	"	2411
3.	"	3.I.05	Chloridometer Digital	1	1	4,112.35	"	2411
4.	"	3.I.06	Evaporator Assembly Rotor	6	6	14,520.00	"	2411
5.	"	3.I.09	Extraction Appratus	3	3	6,318.60	"	2411
6.	07-06-88	3.I.11	Balance Spring (Dial type)	1	1	97.60	"	2220
7.	29-11-87	2.I.12	Moisture meter	2	2	248.40	"	2411
8.	"	3.I.14	Leaf Area Meter	1	1	15,518.00	"	2411
9.	"	3.I.18	Freezer Chest Type	2	2	1,045.40	"	2411
10.	29-11-87	3.I.19	BioSafe Hold Laminir Flow	1	1	5,175.00	"	2412
11.	07-06-88	3.I.21	Electrophoresis Kit	1	1	1,370.75	"	2220
12.	29-11-87	3.I.25	Incubator Coolgd B.O.D	3	3	7,801.20	"	2412
13.	"	3.I.27	Humidity Indicator	1	1	115.40	"	2412
14.	07-06-88	3.II.02	Laboratory Mill Stein Cutter	2	2	5,509.00	"	2220
15.	29-11-87	3.II.08	Fielf balance	2	2	271.50	"	2412
16.	07-06-88	3.II.14	Plow Moldboard Type	1	1	2,127.50	"	2220
17.	"	3.II.16	Cultivator (Fielf Type)	1	1	875.00	"	2220
18.	29-11-87	3.III.01	Physiological Recorder	1	1	8,740.00	"	2412
19.	"	3.III.03	Polygraph Model Narcotrace NT80 Complete (With access.)	1	1	44,709.90	"	2412
20.	"	3.III.04	Isolated Organ Baths complete	1	1	1,034.50	"	2466
21.	07-06-88	3.III.06	Veterinary Anessthesia System (With access.)	1	1	5,218.70	"	2220
						<u>1,52,632.50</u>		

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIFR	REMARKS/ISSUE VOUCHER NO.
22.		3.III.07	Fibre Length Parameter Model 530	1	-	60,778.10	Per Sciences	
23.		3.III.09	Baremann Appratus	1	-	162.00	"	Not supply
24.	29-11-87	3.III.16	D/C Amplifier Electrometer	1	1	217.50	"	2465
25.	"	3.III.18	Automatic Weather Station	1	1	8,966.10	"	2465
26.	29-11-87	3.V.01	Calculator Statistical Analysis	3	3	517.50	"	2464
27.	"	3.V.02	Calculator Advanced Programe Able	3	3	310.50	"	2464
28.	"	3.VIII.01	Student Microscope	6	4	2,689.80	"	2466
29.	"	3.VIII.02	Cemara 35 mm	1	1	382.00	"	2464
30.	"	3.VIII.04	Oven Drying Complete	2	2	3,380.00	"	2466
31.	"	3.VIII.05	Stereoscopic zoom microscope	4	4	7,920.00	"	2414
32.	"	3.VIII.06	Autoclave (sterilizer)	2	2	5,176.20	"	2414
33.	"	3.VIII.07	Humidifier Model VF 2	1	1	2,080.00	"	2414
34.	"	3.VIII.11	Oscilloscope	1	1	2,060.50	"	2414
35.		3.VIII.14	Surface Tensiometer	1	-	1,586.30	"	Not supply
36.	29-11-87	3.VIII.16	Polar Planimeter	1	1	333.70	"	2414
37.	"	3.VIII.18	All purpose food mixer	1	1	369.20	"	2414
38.	"	3.VIII.20	Milk Cryoscope advanced Model 4LII	1	1	5,405.20	"	2414
39.	"	3.VIII.23	Refrigerator upright	1	1	866.80	"	2414
40.	"	3.VIII.24	Refractometer Brix Hand Held	1	1	246.90	"	2465
41.	"	3.VIII.25	Temperature Controler	1	1	648.40	"	2465
42.	"	3.VIII.26	Sunshine Recorder Campbell	1	1	1,060.50	"	2465
43.	"	3.VIII.27	Sieves Full Height Round	1	1	330.10	"	2464
44.	"	3.IX.02	Flex Shaf Electric Concrte Vibrator	1	1	940.50	"	2465
45.		3.IX.06	Glass Measuring Cylinder	1	-	16.00	"	Short supply
46.		3.IX.08	Petri dishes	1	-	67.00	"	Short supply

1,14,510.50

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DATE OF ISSUE	CODE NO.	DISCRIP TION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
29-11-87	3.IV.1	Slide Projector	6	6	4,112.40	Pem Sciences	2465
29-11-87	3.IV.2	Overhead Projector Apollo 6	6	6	1,365.60	"	2464
	3.IV.3	Overhead Projector Opaque	1	✓	500.00	"	Short suppl"
29-11-87	3.IV.5	Screen Projection	1	1	125.80	"	2465
"	3.IV.6	Rotary Trays	4	4	34.40	"	2465
"	3.IV.7	Microfish Microflim Reader	1	1	472.55	"	2464
"	3.IV.8	Microfiche Reader/Printer	1	1	2,750.65	"	2464
"	3.IV.9	Book Charger Model C Gaylord	1	1	1,676.00	"	2465
"	3.IV.10	Laminator	1	1	919.00	"	2464
"	3.IV.11	Book Labeling System	1	1	156.75	"	2464
"	3.IV.12	Periodical Check-in-cards	30	30	124.50	"	2430
"	3.IV.13	Card Duplicator	1	1	1,632.10	"	2430
"	3.IV.15	Binding System Complete	1	1	2,579.10	"	2430
"	3.VI.1	Air Conditioner	1	1	563.50	"	2430
03-02-88	3.I.02	Bright Field Microscope	6	6	14,098.80	Fisher	2265
24-11-87	3.I.03	Polyscience Polarimeter SR-6 Complete	2	2	5,842.60	"	2442
	3.I.07	Interval Timer	1	- <i>Recd.</i>	37.25	"	Short Ship
24-11-87	3.I.01	Instrument Repair Kit	1	1	420.00	"	2442
24-11-87	3.I.15	Tyler Ro-Tap Shaker	2	2	3,169.60	"	2442
	3.I.17	Dual Range Electronic Toploading balance	4	- <i>Recd.</i>	3,516.60	"	Short Ship
24-11-87	3.I.22	Portable Conductivity	1	1	536.60	"	2442
	3.I.23	Versa-Bath Capacity 12 l	3	- <i>Recd.</i>	1,350.00	"	Short Ship
03-02-88	3.I.26	Centrifuge Model K with access.	3	3	22,519.35	"	2265
24-11-87	3.I.28	Fraction Collector with access.	1	1	1,602.60	"	2442
					<u>77,178.75</u>		

DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
71.	24-11-87	3.III.02 Microprojector	3	3	1,989.90	Fisher	2443
72.	"	3.III.10 Gerber Butyrometers for Milk	20	20	129.00	"	2443
73.	"	3.III.11 Gerber Butyrometers for Creme	5	5	46.25	"	2443
74.	"	3.III.12 Gerber Butyrometer for Ice-creme	50	50	462.50	"	2443
75.	"	3.VIII.03 Rotary Microtome	3	3	12,156.00	"	2443
76.	"	3.VIII.10 Thermolyne Hotplate	2	2	193.10	"	2443
77.	"	3.VIII.12 Corning Mega-pure DE-System with access.	1	1	1,941.25	"	2444
78.	"	3.VIII.13 Microtone knife sharpener	1	1	3,218.25	"	2444
79.	"	3.VIII.19 Wring two speed blender	1	1	171.70	"	2444
80.	"	3.VIII.21 Automatic Pipetters	10	-	140.00	"	Short Ship
81.	"	3.VIII.22 Colony Counter	1	1	1,408.05	"	2444
82.	29-07-87	3.2.13 Rotavator-KMC Model 2772 Complete	1	1	1,710.00	Open Heimer	1266
83.	03-02-88	3.VII.1 Refrigerated Centrifuge J2-21M/E	2	2	37,572.80	Backman	2274
84.	"	3.VII.2 Refrigerated Centrifuge Model TJ-6R Complete with access.	2	2	20,516.24	"	2273
85.	"	3.VII.4 Microcomputer pH Meter with access.	6	6	19,431.60	"	2282
86.	10-11-87	3.2.1 Sped Germinator Complete	1	1	8,410.00	Dalton Cooper	1336
87.	29-07-87	3.2.4 Tractor of 72 Horsepower Complete	2	2	40,600.00	"	1274/1266
88.	"	3.2.5 Sprayer Tractor Complete with access.	2	2	7,600.00	"	1274.1266
					<u>1,57,696.64</u>		

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
89.	29-07-87	3.2.11	Cleaner and grader	1	1	3,475.00	Dalton Cooper	1266
90.		3.9.1	Cement cube mold	1	1	363.00	Soil Test	Being issue
91.		3.9.4	Cube beam form	1	1	72.00	"	"
92.		3.9.5	Slump Test Set	1	1	97.00	"	"
93.		3.9.7	Grad Cylinder	1	1	22.00	"	"
94.		3.9.9	Pocket Penetrometer	1	1	42.00	"	"
95.		3.9.10	Concrete Test Hammer	1	1	486.00	"	"
96.	03-02-88	3.I.13	Electronic Analytical Balance	7	7	12,740.00	New World	2291
97.	"	3.I.24	Orbital Shafer	2	2	5,300.00	"	2291
98.	28-07-88	3.III.30	Sigma 2000 Gas Chromatograph Complete with access.	1	1	38,742.10	Perkin Elmer	1247
99.	"	3.III.L/ I 31	Atomic Absorption Spectrophot- metter Series 5000 Modle 5100 Complete with access.	1	1	83,918.97	"	1255
100.	"	3.VIII.9	Spectrophotometer Modle 35 with access.	1	1	2,252.50	"	1245
101.						<u>1,47,510.57</u>		
						Grand Total:		6,42,453.56
						Short Shipped:		5,426.85
						Short Supplied:		1,748.30
						Total Supply:		6,35,078.41

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Total Supply to Sind Province

<i>A.R.I. Tandojam</i>	407,129.38
<i>Tandojam University</i>	635,083.41
<i>Rice Res.Institute, Dokari.</i>	342,732.87
	=====
<i>GRAND TOTAL:</i>	1,276,945.66
	1.27

LIST OF EQUIPMENT SIND PROVINCE UNDER MART PROJECT
ISSUE TO AGRI. RES. IN: T. TANDOJAM

S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS /ISSUE VOUCHER NO.
1.	29-11-87	3.I.04	Kjeldahl Micro Appratus	2	2	2,051.00	Pem Sciences	2416
2.	"	3.I.12	Moisture Meter	4	4	496.80	"	2416
3.	"	3.I.18	Freezer Chest Type	2	2	1,045.00	"	2416
4.	"	3.I.25	Incubator Cooled B.O.D Range	3	3	7,801.20	"	2416
5.	"	3.II.08	Feed Balance	1	1	135.75	"	2416
6.	07-06-88	3.II.14	Plow Moldboard Type	2	2	4,255.00	"	2221
7.	"	3.II.16	Cultivator Field Type	1	1	875.00	"	2221
8.		3.III.07	Fibre Length Parmcter	1	-	68,778.10	"	Short ship
9.	24-11-87	3.III.22	Pressly Strength Tester	1	1	2,425.50	"	2416
10.	29-11-87	3.III.28	Carter-day Dockage Tester	1	1	14,630.00	"	2416
11.	"	3.V.03	Photocopier with access.	5	5	33,815.00	"	2416
12.	"	3.V.04	Duplacting Machine	3	3	7,575.00	"	2417
13.	29-11-87	3.V.05	Scanning Machine	4	4	8,621.20	"	2417
14.	"	3.V.06	Typewriter Electric with access.	6	6	9,365.48	"	2417
15.	"	3.V.07	Calculator Statistics	4	4	690.00	"	2417
16.	"	3.VIII.02	Camera 35 mm	3	3	1,146.00	"	2417
17.	"	3.VIII.04	Oven Drying	2	2	3,300.00	"	2417
18.	"	3.VIII.06	Autoclave (Sterilizer)	1	1	2,588.10	"	2417
19.	"	3.VIII.14	Surface Tensiometer	2	-	3,172.60	"	Not supply
20.	"	3.VIII.15	Portar 175	2	2	15,087.60	"	2417
21.	"	3.VIII.23	Refrigerator	4	4	3,457.00	"	2417
22.	"	3.VIII.24	Refractometer Brix	5	5	1,234.50	"	2416
23.	"	3.IX.13	Soil Auger	6	6	1,602.60	"	2419
						<u>1,73,551.65</u>		

NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
24.		3.X.02	Mill Cylone Sample	2	-	4,399.80	Pem Sciences	Not supply
25.	29-11-87	3.X.07	Chamber growth	1	1	4,320.000	"	2419
26.	"	3.X.08	Sterilizer soil	1	1	660.00	"	2418
27		3.X.09	Seed Propagator with access.	1	-	2,672.70	"	Not supply
28.	29-11-87	3.X.14	Plant Growth Chamber	2	2	29,480.00	"	2418
29.	"	3.IV.1	Slide projector	2	2	1,370.80	"	2431
30.	"	3.IV.2	Overhead Projector Apollo 6	3	3	682.80	"	2431
31.	01-02-88	3.I.02	Bright Field Microscope	2	2	4,699.60	Fisher	2266
32.	24-11-87	3.I.03	Poly science Polarmeter	3	3	8,763.90	"	2440
33.		3.J.17	Dual Range Top Loading Balance	5	- <i>3 fixed</i>	4,395.75	"	SMort ship
34.	24-11-87	3.I.22	Conductivity/Salinty Meter	2	2	1,073.20	"	2440
35.	01-02-88	3.I.26	Centrifuge Modle K	2	2	15,012.90	"	2267/2266
36.	24-11-87	3.VIII.22	Colony Counter	1	1	1,408.05	"	2440
37.	"	3.X.01	Still water Mega pure	3	3	2,916.00	"	2440
38.	"	3.X.05	Scotch Pouch Sealer	1	1	127.20	"	2440
39.	"	3.X.13	Thermiline Muffle Furnce	1	1	497.75	"	2441
40.	"	3.X.12	Conductivity Bridge	1	1	1,062.75	"	2441
41.	"	3.X.15	Versabath Shaker Modle 224	1	1	2,538.00	"	2441
42.	29-7-88	3.2.22	Sprayer Orchard Mist Type-Automatic	2	2	9,888.00	Open Heimer	1267
43.	10-11-87	3.2.1	Seedbuo Speed Germinator Complete	7	7	50,460.00	Dalton Cooper	1338/1339
44.	29-07-87	3.2.4	Tractor of 72 Hourspower Complete	4	4	81,200.00	"	1278/7776/75
45.	"	3.2.5	Sprayer Tractor Mounted Complete	1	1	38,000.00	"	1279
						2,33,177.77		

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3(B)-8

S.NO.	DATE OF ISSE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIES	REMARKS/ISSUE VOUCHER NO.
46.	29-07-87	3.2.11	Cleaner and Grader	2	2	6,950.00	Dalton Cooper	1269/1272
47.	"	3.2.15	Prime Heavy Duty Offset Disc Harrow Complete	1	1	2,200.00	"	1262
48.	"	3.2.19	Tractor 52 Horsepower Complete	1	1	14,200.00	"	1269
49.	"	3.2.20	Portable Husker Sheller	1	1	2,900.00	"	1269
50.	"	3.2.21	Seed Planter Complete	1	1	7,000.00	"	1267
51.	01-02-88	3.1.13	Electronic Analytical Balance	6	6	10,920.00	New World	2292
52.	"	3.1.24	Orbital Shaker	2	2	5,300.00	"	2292
53.	"	3.III.19	Cane Crusher with Electric Motor	3	3	10,800.00	"	2292
54.	"	3.III.20	Cane Shredder Charging Chute	3	3	<u>600.00</u>	"	2292
						60,670.00		
						Grand Total:		4,90,548.83
						Short Shipped:		73,174.35
						Short Supply:		10,245.10
						Total Supply:		4,07,129.38

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LIST OF EQUIPMENT SIND PROVINCE UNDER MART PROJECT
ISSUED TO RICE RES. INSTITUTE DOKARI

S.No.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY. RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
1.	26-11-87	3.1.01	Flame photometer	1	1	12,372.00	Pem Sciences	2419
2.	26-11-87	3.1.12	Moisture meter	1	1	124.20	"	2419
3.	26-11-87	3.1.18	Freezer chest type	2	2	1,045.40	"	2419
4.	26-11-87	3.1.19	Bio-Safe hood Laminar	1	1	5,175.00	"	2419
5.	07-06-88	3.11.25	Weeder	1	1	5,222.00	"	2222
6.	24-11-87	3.v.03	Photocopier	1	1	6,763.00	"	2419
7.	26-11-87	3.v.06	Typewriter (Electric)	1	1	1,560.91	"	2419
8.	26-11-87	3.v.08	Binding System Plastic with access.	1	1	3,034.30	"	2419
9.	26-11-87	3.v.09	Laminator	1	1	919.00	"	2419
10.	26-11-87	3.v.10	Paper cutting Machine	1	1	2,951.00	"	2420
11.	26-11-87	3.VIII.02	Camera 35 mm.	1	1	382.00	"	2420
12.	26-11-87	3.VIII.04	Oven, Drying	2	2	3,350.00	"	2420
13.	26-11-87	3.VIII.05	Stereoscopic zoon (Microscope)	1	1	1,980.000	"	2420
14.		3.VIII.14	Surface Tensiometer	2	-	3,172.60	"	Not Supply
15.	26-11-87	3.VIII.23	Refrigerator	3	3	2,600.40	"	2420
16.	26-11-87	3.X.07	Chamber Growth	1	1	4,320.00	"	2420
17.	26-11-87	3.X.17	Thermograph Taylor Thermometer	1	1	1,330.00	"	2420
18.	26-11-87	3.IV.1	Slide Projector	1	1	685.40	"	2432
19.	26-11-87	3.IV.2	Overhead Projector (Apollo)	1	1	227.60	"	2432
20.	26-11-87	3.IV.3	Overhead Projector (Opaque)	1	1	500.00	"	2432
21.	26-11-87	3.IV.7	Microfilm reader	1	1	472.55	"	2432
22.	26-11-87	3.IV.8	Microfiche Reader/Printer.	1	1	2,750.65	"	2432
23.	26-11-87	3.VI.1.	Air-Conditioner	1	1	5,199.00	"	2432

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S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS - ISSUE VOUCHER NO.
24.	2-2-88	3.I.02	Bright-Field Microscope	1	1	2,537.80	Fisher	2265
25.		3.I.17	Electronic Top Lodding Balance	1	- Recd	879.15		Short Shipped
26.	24-11-87	3.X.01	Still, Water Mega-pure	1	1	972.00	"	2433
27.	10-11-87	3.2.28	Plot combine	1	1	29,900.00	Falcon Cooper	1335
28.	29-7-87	3.2.11	Cleaner and grader	2	2	6,950.00	"	1271-1272
29.	29-7-87	3.2.26	Grain viewer	1	1	525.00	"	1265
30.	10-11-87	3.2.27	Thresher (small bundle type)	1	1	3,230.00	"	1335
31.	28-7-87	3.III.30.	Sigma 2000 Gas Chromatograph with access.	1	1	38,742.10	Perkin Elmer	1251
32.	28-7-87	3.II.L/I 31.	Atomic Absorption Spectrophotometer M-5100 Complete with access.	1	1	83,918.97	"	1260
33.	28-7-87	3.VIII.9	Spectrophotometer M-35 complete with access.	1	1	2,252.50	"	1246
34.	29-7-87	3.2.13	Rotavator M-2772	1	1	1,710.00	Oppenheirer	1265
						1,71,617.52		
Grand Total:						2,38,784.62		
Short Shipped:						879.15		
Short Supply:						5,172.60		
Total Supply:						2,54,732.87		

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Total Supply to NWFP.

CCRI Pirsabak:	US-\$: 1,70,589.60
Agri. University, Peshawar.	US-\$: 64,290.65
Tarnab.	US-\$: 2,07,554.14
	<hr/>
Grand Total:	US-\$: 4,42,434.39
	<hr/>

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	2,08,004.94
Short Supplied.	.450.80
	<hr/>
Total Supply:	207554.14

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LIST OF EQUIPMENT NWFP PROVINCE UNDER MART PROJECT
ISSUE TO CCRI PIRABAK

S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL PRICE \$	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
✓1.	07-06-88	1.1.01	Combine(Small Plot) with access	2	2	1,28,194.00	Pem Sciences	2217
✓2.	26-11.87	1.II.5	Balance, Electronic Top Loading	1	1	1,510.00	"	2401
✓3.	"	1.II.18	Chamber Growth	1	1	4,500.00	"	2401
✓4.	"	1.II.19	Sterilizer Soil Electrically	1	1	650.20	"	2401
✓5.	"	1.II.21	Bio-Safe Hood Laminar Flow	1	1	5,690.00	"	2401
✓6.	"	1.II.22	Incubator Cooled B.O.D.	1	1	2,740.00	"	2401
✓7.	04-02-88	1.II.13	Colony Counters	1	1	547.20	Fisher	2437
✓8.	"	1.II.17	Microscope stereozoom with Nicholas Illuminator	1	1	1,037.10	"	2437
✓9.	"	1.II.20	Cersa-Bath	1	1	450.00	"	2259
10.	"	1.I.7	Seed Cleanor	1	1	2,483.30	Expotrar.	2295
✓11.	"	1.I.12	Moisture Tester	1	1	330.00	New World	2151
✓12.	"	1.1.16	Seed Counter	1	1	5,530.00	"	2151
✓13.	10-11-87	1.1.5	✓Thresher(Small, bundle type)	1	1	3,230.00	Dalton Cooper	1331
✓14.	23-07-87	1.1.6	Seed Treater, batch type	1	1	950.00	"	1206
✓15.	10-11-87	1.1.15	Plot Cutter	1	1	3,335.00	"	1331
✓16.	23-07-87	1.1.17	Husker Portable	1	1	2,900.00	"	1206
✓17.	"	1.1.13	Grain Drill Plot	1	1	2,878.00	Open Heimer	1206
✓18.	04-02-88	1.II.16	Microscope	1	1	2,537.80	Fisher	2259
✓19.	25.11.87	1.1.19	Battery Charger	1	1	207.00	Pem Sciences	2401
Total Supply:						<u>1,70,589.60</u>		

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LIST OF EQUIPMENT NWFP PROVINCE UNDER MART PROJECT
ISSUE TO AGRIC. UNIV. PESHAWAR

S.No.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY. ORDERED	QTY RECEIVED	TOTAL PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
✓ 1.	26-11-87	1.III.1.	Projector Overhead, Apollo	6	6	1,512.00	Pem Sciences	2403
✓ 2.	"	1.III.2	Overhead Projector (Opaque)	1	1	502.40	"	2403
✓ 3.	"	1.III.3	Kodak Disc 6100 Camera	1	1	146.00	"	2403
✓ 4.	"	1.I.21	Cultivator with furro plow	1	-	4,876.00	"	Not Supply
✓ 5.	"	1.II.5	Balance, Electronic Top Loading	2	2	3,020.00	"	2403
✓ 6.	"	1.II.8	Autoclave (Sterilizer)	1	1	2,023.50	"	2403
✓ 7.	"	1.II.23	Freezer Chest Type	2	2	1,000.00	"	2403
✓ 8.	"	1.II.25	Refrigerator Upright	2	2	1,420.00	"	2403
✓ 9.	"	1.II.27	Flame Photometer IL 943	1	1	13,000.00	"	2403
✓ 10.	"	1.II.30	Radio Active Monitor	1	1	294.50	"	2403
✓ 11.	"	1.II.31	Kelway Soil Acidity Moisture	1	1	124.70	"	2403
✓ 12.	04-02-88	1.II.02	Still Water Mega-Pure	1	1	1,317.15	Fisher	2435
✓ 13.	"	1.II..10	Like 13-641-560 Corning	2	2	1,714.70	"	2435
✓ 14.	"	1.II.14	Centrifuge Model K	2	2	15,012.90	"	2258
✓ 15.	"	1.II.24	Warring Blender	1	1	827.60	"	2435
✓ 16.	"	1.II.26	Liké 04-350-2 Oxygen Bomb Calorimeter	1	1	2,393.45	"	2435
✓ 17.	"	1.II.28	Thermolyne Muffle Furnace	1	1	497.75	"	2435
✓ 18.	"	1.II.29	Belt-Driven Pumps	1	-	1,054.00	"	Not Supply
✓ 19.	23-07-87	1.II.15	Spectrophotometer Model 35	2	2	4,493.00	Perkin Elmer	1201-2
						<u>55,329.65</u>		

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NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL PRICE	NAME OF SUPLIER	REMARKS/ISSUE VOUCHER NO.
✓20.		1.1.13	Plot Grain Drill	2	2	5,756.00	Open Heimer	
✓21.	10-11-87	1.1.15	Plot Cutter	1	1	3,335.00	Dalton Cooper	1332
✓22.	23-07-87	1.1.17	Husker Portable	2	2	5,800.00	"	1204-5
23.						<u>14,891.00</u>		
						Grand Total:		70,220.65
						Short Supplied.:		<u>5,930.00</u>
						Total Supply:		<u>64,290.65</u>

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LIST OF EQUIPMENT NWFP PROVINCE UNDER MART PROJECT
ISSUE TO AGRIC. RES. INST.
TARNAB

S.NO.	DATE OF ISSUE	CODE NO.	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
✓1.	26-11-87	1.III.3	Kodak Disc 6100 Camera	1	1	146.00	Pem Sciences	2424
✓2.	"	1.II.01	Oven drying	1	1	1,627.00	"	2402
✓3.	"	1.II.5	Balance Electronic Top Loading	2	2	3,020.00	"	2402
✓4.	"	1.II.7	Incubator Gravity Convection	1	1	1,250.00	"	2402
✓5.	"	1.II.8	Autoclave (Sterilizer)	2	2	5,247.00	"	2402
✓6.	"	1.II.11	Kjeldahl, Micro Apparatus	1	1	996.30	"	2402
✓7.	04-02-88	1.II.02	Still Water Maga-pure	2	2	2,634.30	Fisher	2433
✓8.	"	1.II.03	Spectroline High-Intensity Lamp	1	-	299.85	"	Not Supplie
✓9.	"	1.II.04	Magnifier Illuinator	1	-	150.95	"	"
✓10.	4-2-88	1.II.09	Versa-Bath Shaker	1	-	2,538.00	"	2433
✓11.	"	1.II.10	Like 13-641-507 Corning pH Meter	1	1	857.35	"	2434
✓12.	"	1.II.12	Gas Analyzer	1	1	156.80	"	2257
✓13.	"	1.II.13	Colony Counter	1	1	547.20	"	2434
✓14.	"	1.II.14	Centerifuge Model K	1	1	7,506.45	"	2257
✓15.	10-11-87	1.1.5	Thresher(Small, bundle type)	2	2	6,460.00	Dalton Cooper	1330
✓16.	23-07-87	1.1.6	Seed Treater, batch type	1	1	950.00	"	1207
✓17.	10-11-87	1.1.8	Sunflower Platting Machine	1	1	5,400.00	"	1330
✓18.	"	1.1.10	Thresher(Small, bundle type)	1	1	3,250.00	"	1330
✓19.	04-02-88	1.1.7	Seed cleaner	2	2	4,968.78	ExpoIran	2294
✓20.	04-02-88	1.1.9	Grain Driven	2	2	94,553.64	"	2294
✓21.	"	1.1.11	Plot Planter Three Rows	2	2	15,254.82	"	2294
✓22.	27-07-87	1.II.15	Spectrophotometer Model 35	1	1	2,246.50	Perkin Elmer	1203
✓23.	23-07-88	1.1.2	Sprayer Orchard mist type	1	1	4,944.00	Oppenheimer	1207
✓24.	14-09-87	1.IV.5-B	Diesel Generator	1	1	43,000.00	Horizon	1202

LIST OF EQUIPMENT BALUCHISTAN UNDER MART PROJECT

AGRI. RES. INSTITUTE SARIAB QUETTA

S.NO.	DATE OF ISSUE	CODE NO	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
1.	26-11-87	4.I.04	Balance Electronic	2	2	4,432.20	Pem Sciences	2421
2.	26-11-87	4.I.06	Stereoscopic Microscope	2	2	4,049.20	"	2421
3.	26-11-87	4.I.07	Microscope Phase Contrast	2	2	10,534.00	"	2421
4.	26-11-87	4.I.08	Microscope Binocular 4	1	1	3,745.50	"	2421
5.	7.6.88	4.I.09	Mill Cylone Sample	2	2	4,399.80	"	2223
6.	26-11-87	4.I.11	Oven Drying	4	4	6,600.00	"	2421
7.	26-11-87	4.I.12	Refrigerator	4	4	2,990.00	"	2421
8.	26-11-87	4.I.17	Moisture Meter	4	4	496.80	"	2421
9.	26-11-87	4.I.19	Freezer Chest type	2	2	1,045.40	"	2421
10.	26-11-87	4.I.25	Refractormeter	2	2	9,392.00	"	2421
11.	26-11-87	4.I.27	Flame Photometer IL 943	1	1	12,490.00	"	2421
12.	26-11-87	4.I.29	Kjeldahl Micro Apparatus	1	1	990.00	"	2422
13.	7-6-88	4.II.03	Bin Master System	1	1	1,999.50	"	2223
14.		4.II.05	Boone Blower	2	-	18,904.00	"	
15.	7-6-88	4.II.06	Seed Propagator with access.	4	4	10,062.40	"	2223
16.	7-6-88	4.II.07	Seed Measures	2	2	91.80	"	2223
17.	7-6-88	4.II.08	Thresher (Large Plot type)	1	1	8,350.00	"	2223
18.	7-6-88	4.II.10	Seed Separator	1	1	10,935.00	"	2224
19.	26-11-87	4.II.14	Bundle Cutter, Swanson	1	1	3,036.00	"	2422
20.	26-11-87	4.II.20	Chisel Plow	1	1	855.80	"	2422
21.	7-6-88	4.II.21	Roller, Cultipacker	1	1	2,320.00	"	2224
22.	7-6-88	4.II.23	Rake, Finger wheel	1	1	675.00	"	2224
23	7-6-88	4.II.24	Mover, Disc Type.	1	1	4,890.00	"	2224
						<u>1,23,284.40.</u>		

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S.NO.	DATE OF ISSUE	CODE NO	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
24.		4.II.25	Baller	1	-	9,425.00	Fam Sciences	
25.	26-11-87	4.III.01	Photocopier with access.	2	2	13,239.20	"	2422
26.	26-11-87	4.III.02	Calculator (Statistical)	2	2	345.00	"	2422
27.	26-11-87	4.III.03	Calculator Advance Programmable	2	2	207.00	"	2422
28.	26-11-87	4.III.04	Slide Projector	1	1	685.40	"	2422
29.	26-11-87	4.III.05	Overhead Projector (Opaque)	1	1	500.00	"	2422
30.	2-2-88	4.1.02	Electronic Toploading Balance	2	2	1,758.30	Fisher	2269
31.	2-2-88	4.1.16	Versa-Bath	1	1	450.00	"	2269
32.	2-2-88	4.1.21	Thermolyne Hotplate	2	2	193.10	"	2438
33.	2-2-88	4.1.22	Thermolyne Muffle Furnace	1	1	497.75	"	2438
34.	2-2-88	4.1.24	Refractometer	4	4	2,735.20	"	2438
35.	2-2-88	4.1.26	Still Water Mega-Pure with voltage Changer	1	1	972.00	"	2438
36.	23-7-87	4.2.1	Seed counter.	3	3	20,715.00	Dalton cooper	1211-12-13.
37.	23-7-87	4.2.2.	Grain viewer	1	1	525.00	"	1213
38.	23-7-87	4.2.4.	Seed Germinator	3	3	25,230.00	"	1340
39.	23-7-87	4.2.9	Cleaner and grader	1	1	3,475.00	"	1211
40.	23-7-87	4.2.11	Seed treater	1	1	955.00	"	1208
41.	23-7-87	4.2.12	Sprayer Tractor mounted 200 g	2	2	7,600.00	"	1208
42.	23-7-87	4.2.13	Rotary tiller heavy duty	1	1	3,960.00	"	1208
43.	23-7-87	4.2.15	Tractor of 52 Horspower	1	1	16,100.00	"	1208
44.	23-7-87	4.2.16	Tractor of 72 Horspower	1	1	20,300.00	"	1209
45.	10-11-87	4.2.17	Grain drill 10 row	2	2	45,840.00	"	1340
46.	10-11-87	4.2.18	Grain drill Complete	2	2	16,750.00	"	1340
47.	10-11-87	4.2.19	Vogel plant Small	1	1	3,170.00	"	1340
						<u>1,95,627.95</u>		

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S.NO.	DATE OF ISSUE	CODE NO	DISCRIPTION OF STORE	QTY ORDERED	QTY RECEIVED	TOTAL \$ PRICE	NAME OF SUPPLIER	REMARKS/ISSUE VOUCHER NO.
48.	23-7-87	4.2.22	Field Cultivator	1	1	2,000.00	Daltoncooper	1000
49.	10-11-87	4.2.26	Heavy duty harrow complete	1	1	720.00	"	1040
50.	23-7-87	4.1.20	Spectrophotometer M-35 with access.	2	2	4,493.00	Perkin Elmer	1010
51.						<u>7,515.00</u>		

Grand Total: 3,54,754.35

Total Supplied: 3,54,754.35.

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No.F.PAL/CHO-391-0489-87-11/413
 Central Store
 National Agricultural Research Centre

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Islamabad, the 24th Jan.1989.

Subject:- DELIVERY OF EQUIPMENT AGAINST HART PROJECT.

The short shipped items against HART project have been received and opened, supplied by Fisher Scientific Company and New world for provinces. The detail of the Equipment is as under:-

<u>S/No.</u>	<u>Description</u>	<u>Qty</u>	<u>Location</u>
1.	Versa Bath	3	Agri.Uni.Tandojam.
2.	Internal Timer	1	" " "
3.	Top loading balance	3	" " "
4.	" " "	6	ARI Tandojam.
5.	" " "	1	ARI Dokri.
6.	" " "	1	ARI Sariab Quetta.
7.	Plant growth Chamber	1	" " "
8.	Balplan Microscopes	3	Agri.Uni.Faisalabad.

You are requested to kindly arrange the mode of transportation and its charges sothat this could be delivered to the concerned provinces.

Muhammad
 24.1.89
 (MUHAMMAD IDRIS)
 Store Officer
 Central Store, NARC.

SFO, PARC.

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61 26-1-89

No. P. PLAN/CHO-391-0489-87-11
Central Store
National Agricultural Research Centre

Subject:- DELIVERY OF EQUIPMENT AGAINST MART PROJECT.

The short shipped items against MART project have been received and opened, supplied by Fisher Scientific Company and New World for provinces. The detail of the equipment is as under:-

<u>S.No.</u>	<u>Description</u>	<u>Qty</u>	<u>Location.</u>
1.	Versa Bath	3	Agri. Uni. Tandojam.
2.	Internal Timer	1	" " "
3.	Top Loading Balance	3	" " "
4.	" " "	3	ARI Tandojam.
5.	" " "	3	AARI Faisalabad.
6.	" " "	1	RRI Dokri.
7.	" " "	1	ARI Sariab, Quetta.
8.	Plant Growth Chamber	1	" " "
9.	Balplan Microscope	3	Agri. Uni. Faisalabad.
10.	Recorder 2PN	1	" " "
11.	Dyna Mix Stirrer 230V	1	" " "
12.	Fresh Water Test Kit		
	1) Sodium Hydroxide	5	" " "
	ii) Sulphamic Acid	5	" " "
13.	Flask Kjeldahl 500ML Pk. of 6.	16 Pk.	" " "
14.	MANL HF Titrator	1	" " "
15.	Agar Powder 500g 1x5	1	" " "

You are requested to kindly arrange the mode of transportation and its charges so that this could be delivered to the concerned provinces.

Muhammad
21-11-89
(MUHAMMAD IDRIS)
Store Officer,
Central Store, NARC

S.P.O., NARC

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LIST OF ITEMS ORDERED BUT NOT SUPPLIED

APPENDIX - 5

CODE NO.	DESCRIPTION OF STORE	QTY. ORDERED	STATION/REMARKS
S I N D:			
			Agrf. Unvi. Tandojam
3.III.07	Fibre Length Parameter Model 350	1	
3.III.09	Baremann Apparatus	1	
3.VIII.14	Surface Tensiometer	1	
3.IV.3	Overhead Projector Opaque	1	
3.I.17	Top Loading Balance	4	(1 Short) Received 3
3.VIII.21	Automatic Pipettors	10	
3.III.07	Fibre Length Parameter	1	A.R.I., Tando Jam.
3.X.02	Mill Cylon Sample	2	
3.X.09	Seed Propagator W/access	1	
3.I.17	Top Loading Balance	5	(2 short) received 3
3.VIII.14	Surface Teustometer	2	R.R.I. Dokri.
N.W.F.P.			
1.I.21	Cultivator with Furrow Plow	1	Agrf. Unvi. Peshawar.
1.II.29	Belt-driver Pumps	1	
1.II.03	Spectroline High Intensity Lamp	1	A.R.I., Tarnab.
1.II.04	Magnifier Illuminator	1	
1.II.09	Versa Bath Shaker	1	
BALUCHISTAN:			
4.II.05	Boone Blower	2	A.R.I., Sarfah, Quetta.
4.II.25	Baller	1	

CODE NO.	DESCRIPTION OF STORE	QTY. ORDERED	STATION/REMARKS
PUNJAB:			A.A.R.I., Faisalabad.
2.VII.08	Moisture Meter	1	
2.VIII.08	Plot Seeder	5	
			R.R.I., Kalashah Kaku.
2.V.15 (A&B)	Strain Gauge Analyzer	50	
2.V.16A	Transducer Cement	2	
2.V.16B	Surface Cleanser	2	
2.V.16C	Surface Etching Primer	2	
2.V.16D	Surface Neutralizer	2	
2.V.16E	Channel Multi Monitor Logger	1	
2.V.17	Computer Communication VIA	1	
			Agri. Unvi. Faisalabad.
2.IV.05	Basic Plutant Factor Kit	3	
2.IV.17	Gauge Thermocouple Vacuum Portable	1	
2.I.15	Microscope Phase Contrast	3	
2.I.17A	Microburet 1/100 m.l	6	
2.I.17B	Microburet 1/100 m.l	6	
2.I.25	Versa Bath	2	
2.I.29	Top Loading Balance	2	
2.IV.21	Tubular Pointed Metal Probe	2	
2.IV.25	Anemometer	1	
2.IV.26	Radiometer Model 65A	1	
2.III.05	Misc. Items	79	(42 short) received 37

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