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AGRICULTURAL TECHNOLOGY IMPROVEMENT PROJECT

(ATIP)

PROGRESS REPORT

1987-1988 OPTIONS TESTING WITH EXTENSION-ORIENTED FARMER ASSESSMENT GROUPS

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PREFACE

ATIP Progress Reports are prepared and circulated to make ATIP research findings easily available to GOB personnel and researchers interested in Botswana farming systems. A major objective of the Progress Report series is to make research findings available in a timely manner. These reports are not subject to professional review outside the Francistown team. Therefore, data and findings presented in the Progress Report series may be subject to further revision and should not be cited without permission of the authors. Findings in this report do not necessarily reflect the official views of ATIP, DAR or USAID.

This Progress Report presents information on the Farmer Managed, Farmer Implemented (FMFI) Options Testing with Extension-Oriented Farmer Assessment Groups carried out at one location (Mapoka) in the Northeast District, during the 1987-88 cropping season. The report covers the farmer testing activities and farmer assessment of the technologies tested.

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(a). Alexander Letebele (AD, DAFS, Mapoka)
(b). Dorcas Gombalume (Field Assistant, DAR, Mapoka)
(c). Geoff Heinrich (ATIP Agronomist)
(d). Synai Masikara (ATIP Agronomist)

1987-1988 OPTIONS TESTING WITH EXTENSION-ORIENTED FARMER ASSESSMENT GROUPS

ABSTRACT

The report discusses the operation of the group and the End-of-Season Farmer Assessment Survey. The report elaborates on the justification and approach for extension-oriented group work. Group activities and how they were carried out during the cropping season are also highlighted. Lastly, trials implemented and those not implemented are discussed in detail and problems pertaining to trials are also elucidated.

INTRODUCTION

The End-of-Season Farmer Assessment Survey was administered during the 1987-88 cropping season to group participants in the ATIP work villages and to members of the extension-oriented farmer groups in non-ATIP villages. The survey was conducted at the end of the cropping season to facilitate a flow of information and feedback from farmers to extension personnel and ATIP staff, and to quantify farmers' opinions on various technology options. Information was also sought on farmer assessment of trials during the year in order to increase team understanding of farmers' attitudes.

OBJECTIVES

The objectives of the FMFI extension-oriented farmer options testing groups were to:

(a). Provide a method for Agricultural Demonstrators (ADs) to increase their efficiency by addressing a large number of farmers (on technical issues) at once, rather than having to make numerous individual visits to households and fields. The group format allows the AD to perform a teaching function at the beginning of the year, and a backup function throughout the cropping season, via monthly meetings.

(b). Provide a forum for researcher backup in extension activities.

(c). Provide a test to see if farmer testing groups are practical under extension conditions.

JUSTIFICATION

The extension service in Botswana has recently been very committed to administering drought relief programmes. Thus, the traditional role of extending recommended agricultural technologies has been greatly reduced. The 1987-88 annual report from extension in the Francistown Region stated that virtually no extension was done that year, and that 95 percent of ADs' time was taken up with administration of government relief programmes. Furthermore, a single AD sometimes had well over 500 households under his/her responsibility. Without a good communication system, many of the constraints these households faced may have gone unaddressed.

The farmer group approach offers a means of working with a number of farmers at

one time, thus improving the efficiency of the AD. ADs are officially encouraged to work with groups of farmers, but to date, the system has not been employed for the testing and teaching of extension recommended technologies in the Francistown Region.

APPROACH

Prior to the cropping season, ATIP staff met with regional agricultural officers and Communal First Development Area (CFDA) coordinators to discuss the extension managed options testing farmer group. With the Regional Agricultural Officer (RAO's) approval, the District Agricultural Officer (DAO) identified one extension area for the group. The DAO and the AD from the area met with ATIP staff to discuss the group work. The regional Crop Production Officer (CPO) and the ALDEP manager also participated in the discussions. This group decided on a limited number of technologies, including types of equipment provided through the ALDEP programme, which were to be presented for testing. Logistical details were also arranged.

Just prior to the normal beginning of the cropping season, the AD asked the village headman to call a traditional village meeting at which he and the ATIP Francistown staff described the farmer group work in other villages, and invited interested farmers to attend the initial group meeting which was to be held two weeks later. At the initial group meeting, the AD and ATIP staff discussed the technologies available for testing and how the tests were to be conducted. Farmers were asked to indicate in which tests they wished to participate.

At subsequent monthly meetings, the implementation of trials was discussed. The farmers were asked to decide for themselves how large to make the test plots, and to stake the plots accordingly. Side-by-side comparisons were recommended. A field assistant was hired to assist the AD in working with the farmers to collect data, provide seeds and equipment, etc.

Monthly meetings to discuss trials were held. Farmers were asked to describe their trial experiences, identify problems, and report their observations on their trial to the group. The farmer group meetings were chaired by the AD. All meetings were attended by ATIP and district level extension staff. ATIP and extension staff visited all trials at least once during the season.

A field day was held towards the end of the season. Farmers from other villages, extension staff and research staff were invited to participate.

Following harvest, the ATIP staff administered a formal End-of-Season Survey to participating farmers to obtain their assessment of the trials they had participated in, and the group activities. This information is included with extension and researcher evaluations of the group activity in this progress report.

The report first discusses farmer group activities, then goes on to talk about results and conclusions.

GROUP ACTIVITIES

Monthly meetings were an important feature of the farmer group. At the meetings, farmers discussed their trials and exchanged views on problems encountered. To provide feedback to agricultural staff not directly linked with ATIP Francistown, a field day was hosted in conjunction with DAFS. About 110

people participated, including the Director of Agricultural Field Services, extension staff and researchers. At each field that was visited, the owner presented their trial to the group, talked about their observations on the technology, and answered questions from the audience. Field observations stimulated a good deal of discussion from the group and made the visit very fruitful. The field day also served as a linkage tool between farmers, extensionists and researchers since it provided a forum for discussing technologies and problems.

RESULTS

The results are based on an End-of-Season Survey containing six different schedules as shown in the Appendix. Since there was a lot of overlap in the information pertaining to the survey, a more generalised picture of the results is presented.

The baseline data in Table 1 reveals that the sample was composed of 14 female headed-households and 14 male headed-households. Forty-three percent of the members were between 60 and 70 years of age and 21 percent of members had between five and six household members. There is a possibility that only household members in residence were recorded. According to the survey findings, more women participated in arable agriculture than either men or children. It should be noted, however, that seven members of the group did not implement any of the trials. Three of these were from female headed-households and the rest were from male headed-households. The following reasons were given for not participating:

(a). Intended to use the planter, but since there were not enough planters for everyone in the group, and it was rather late in the season, the idea was abandoned for broadcasting.

(b). Draught animals died or got lost, and it was rather difficult to get access to any other source of draught. This made it hard for farmers to implement the trial.

(c). Farmer ploughed by cooperative arrangement due to a shortage of traction animals. So it was difficult to get draught animals, within a reasonable time to implement the trial.

(d). Some farmers used planters every year and therefore were aware of the benefits associated with row planters. These people had wished to try some of the ATIP planters, but due to the shortage of planters, they decided to use their own. As such, this group was not interviewed.

About 53 percent of participants reported that access to draught power was a major constraint. As is often the case, most female headed-households did not have control over traction, which meant their access to draught power was mainly through hire or cooperative agreement. Cattle were the primary source of draught power and ownership was mainly between 1 and 15 beasts. It appeared that only cattle around the village were reported and not those at the cattle posts.

During the cropping year, participation in farmer group meetings was satisfactory, and most farmers claimed they would like to participate in the meetings in the coming year. The farmers indicated that these group meetings were helpful in that they were able to share ideas with other farmers, and also to discuss problems with the ATIP staff. In addition, farmers pointed out that

the groups provided a forum through which they learnt new techniques and received advice first hand.

TABLE 1: HOUSEHOLD CHARACTERISTICS OF PARTICIPANTS, FMFI EXTENSION-ORIENTED FARMER TESTING GROUP, NORTHEAST DISTRICT, 1987-88

	NUMBER	PERCENT
SEX OF HEAD OF HOUSEHOLD		
MALE	14	50
FEMALE	14	50
TOTAL	28	100
AGE CATEGORY		
30-40	1	3
40-50	5	18
50-60	5	18
60-70	12	43
70-80	5	18
CATTLE CATEGORY		
0 HEAD	6	21
1-15 HEAD	20	72
16-40 HEAD	2	7
>40 HEAD	0	0
NUMBER OF DONKEYS		
NONE	13	46
1-3	7	25
4 OR MORE	8	29
PRIMARY DRAUGHT		
DONKEY	5	18
CATTLE	17	61
TRACTOR	5	18
DONKEY & CATTLE	1	3
HOUSEHOLD COMPOSITION		
AVG. NUMBER IN HOUSEHOLD	5.6	
AVG. NUMBER MEN IN AGRIC.	0.7	
AVG. NUMBER WOMEN IN AGRIC.	1.4	
AVG. NUMBER CHILDREN IN AGRIC.	1.1	

As shown in Table 2 the most commonly chosen trial was the row planter. Approximately 20 farmers used row planters. Among those, 11 conducted trials using the Master hand row planter (rotary injection planter), and most farmers indicated it was the only trial they felt capable enough to manage due to a shortage of labour and draught power. Seven farmers opted for the Sebale plough planter, and two for the Sebale planter. None of the farmers implemented the cowpea variety trial, and three planted fodder. In total, 12 trials were successfully implemented and 11 trials failed. Of the 28 farmers who participated, two implemented two trials each. Farmers who used row planters, when the moisture was optimal, observed that trial plots had a greater number of plants which also grew faster. On the other hand, farmers who planted when the soil was either too wet or too dry reported that the plants in the trial plot did not show a difference, or grew more slowly than those in the traditional plots.

TABLE 2: TRIALS ATTEMPTED, FMFI EXTENSION-ORIENTED FARMER TESTING GROUP, NORTHEAST DISTRICT, 1987-88

	NUMBER SUCCESSFUL TRIALS*	NUMBER FAILED TRIALS	TOTAL TRIALS
SEBELE PLANTER	1	1	2
SEBELE PLOUGH/PLANTER	4	3	7
COWPEA VARIETY TRIAL	0	0	0
FORAGE TRIAL	2	1	3
MASTER HAND ROW PLANTER	6	5	11
TOTAL	12	11	23

*. Successful trials are those which were implemented and harvested.

The following common problems were mentioned in relation to trials:

(a). The planter required a good deal of labour.
(b). Weed infestation interfered with root development and therefore affected plant growth.
(c). Insect pests and birds were a problem.
(d). Untimely planting, in general, affected stand establishment.

Ten farmers pointed out that they would like to use row planters again, while seven said they would not. Reasons given for the above are as shown in Table 3.

TABLE 3: FARMER'S POSITIVE AND NEGATIVE COMMENTS ABOUT PLANTERS, FMFI EXTENSION-ORIENTED FARMER TESTING GROUP, NORTHEAST DISTRICT, 1987-88

	ADVANTAGES	DISADVANTAGES
SEBELE PLANTER	--Preferred over the Sebele Plough Planter since it was lighter	
SEBELE PLOUGH PLANTER	--Quite light	--Too heavy --Dropped too many seeds at a time --Crushed the seed
MASTER HAND ROW PLANTER	--Very good tool for: --farmers with draught power and labour constraints --row planted plots generally yielded more than broadcast plots	--Too heavy to push by hand --Left too many gaps --Planter was not straight enough, which made it difficult to use

CONCLUSION

The group concept seems to have a positive impact on farmer adoption rates. Within the groups, farmers tended to be very enthusiastic and responsive. Since group attendance in ATIP work areas seemed to be women dominated and studies show that they provide the majority of arable production labour, it is suggested that the Ministry of Agriculture look closely into programmes oriented towards promoting and encouraging women farmers.

The report notes that there is some correlation between control over traction and trial successes. This could be attributed to the ability to implement trials in time. Labour and draught power constraints seem to be very common. Consequently, these interfere with trial implementation plans. In view of the above, emphasis should be placed on technologies aimed at alleviating labour and draught power problems for the farmers concerned. The hand row planter is a potential example.

Cattle ownership seemed to be most common for farmers between the ages of 60 and 70. Farmers in this age category proved to be more active and innovative in that they had a wide range of reasons for choosing specific trials. It has been observed that cattle ownership reflects access to resources, and that the more cattle a household owned, the greater the investment opportunities. In addition, a strong resource base seemed to provide a wide range of opportunities from which the farmer could choose.

With regard to unsuccessful trials, there seemed to be some correlation between cattle ownership and trial failures. Most of the trials failed before harvest which suggests that severe climatic conditions could also be associated with the crop failures. However, female headed-households seemed to be worse-off compared to the male headed-households. This could be attributed to a lack of resources which limits managerial flexibility.

Row planting proved to be comparatively better than broadcasting in that it ensured good stand establishment, and the plants looked healthier and produced better yields. Since there were not enough planters and farmers had to share, most people did not get planters in time to plant early. Nevertheless, most farmers registered to get their own planters through the ALDEP scheme since they perceived the benefits associated with the use of the planter.

Only three farmers implemented the fodder trial. Some farmers did not harvest the fodder at the recommended time, hence the crop matured excessively and lost palatability. Those who harvested the fodder crop in good time reported that the forage provided good supplementary feeding for their animals and saved them from starvation.

APPENDIX

ATIP FRANCISTOWN
1988 END-OF-SEASON ASSESSMENT SURVEY
FOR EXTENSION FARMER OPTION TESTING GROUPS

FARMER NAME:_____

FARMER NUMBER:_____ DVDU: _____

VILLAGE: MAPOKA DATE:_____

I. BASELINE DATA

1A. SEX OF HEAD OF HOUSEHOLD: MALE [ ] FEMALE [ ] SXHH ___

1B. AGE [ ] AGHH ___

2A. DOES THE HEAD OF HOUSEHOLD CURRENTLY RESIDE HERE?

YES [ ] NO [ ] HHRS ___

2B. IF NO, WHO RUNS THE HOUSEHOLD IN THEIR ABSENCE?

B1. NAME _____

B2. SEX: MALE [ ] FEMALE [ ] SXAB ___

B3. AGE [ ] AGAB ___

3. HOW MANY PEOPLE ARE IN THIS HOUSEHOLD? [ ] NBRH ___

4. HOW MANY HOUSEHOLD MEMBERS PARTICIPATE REGULARLY IN CROPPING ACTIVITIES?

MEN [ ] NOMM ___

WOMEN [ ] NOFF ___

CHILDREN [ ] NOCH ___

5. HOW MANY CATTLE DOES THIS HOUSEHOLD OWN?

0	
1-15	
16-40	
41 OR MORE	

CATT ___

6. HOW MANY DONKEYS DOES THIS HOUSEHOLD OWN? [ ] DONK ___

7A. WHAT IS THE PRIMARY SOURCE OF DRAUGHT POWER? (LABEL AS "1" IN CHART BELOW)

7B. HOW WAS THE DRAUGHT POWER ACQUIRED?

7C. WHAT IS THE SECONDARY SOURCE OF DRAUGHT POWER? (LABEL AS "2" IN CHART BELOW)

7D. HOW WAS THE DRAUGHT POWER ACQUIRED?

TYPE		1-OWN	2-HIRE	3-COOP BORROW	4-FAMILY
	DONKEY				
	CATTLE				
	TRACTOR				

PRIM ___

PRMACQD ___

SECDR ___

SECACQD ___

[CODING FOR TRACTION:
1=DONKEY, 2=CATTLE, 3=TRACTOR, 4=DONK/CATT
5=DONK/TRAC, 6=CATT/TRAC
CODING FOR SOURCE:
1=OWN, 2=HIRE, 3=COOP/BORR, 4=OWN/HIRE,
5=OWN/COOP/BORR, 6=HIRE/COOP/BORR]

8A. DID YOU USE THE SAME TRACTION SOURCE FOR THE GROUP TRIALS? SAMTRAC:_____

YES(1) [ ] OR NO(2) [ ]

8B. IF NOT, WHAT TRACTION DID YOU USE? _____ GRPTRAC:_____

9A. WERE THERE ANY PROBLEMS WITH YOUR TRACTION SOURCE CONCERNING THE GROUP TRIALS? PROBTRAC:_____

YES(1) ☐ OR NO(2) ☐

9B. IF YES, PLEASE EXPLAIN: EXPRBTRC:_____ {POSTCODE}

_____

_____

II. GENERAL FARMER GROUP INFORMATION

1. IN WHICH TRIAL OR TRIALS DID YOU PARTICIPATE? TRIAL:_____

1 - SEBELE PLANTER ---------- ☐
2 - SEBELE PLOUGH/PLANTER ---------- ☐
3 - COWPEA VARIETY TRIALS ---------- ☐
4 - FORAGE TPIAL ---------- ☐
5 - MASTER HAND ROW PLANTER ---------- ☐
6 - OTHER EQUIPMENT _____ ---- ☐
7 - OTHER TRIAL _____ ---- ☐

[ENUMERATORS: PLEASE MAKE SURE A SEPARATE QUESTIONNAIRE IS ATTACHED FOR EACH BOX CHECKED].

2. HAVE YOU PARTICIPATED IN THE FARMER GROUP MEETINGS?

YES(1) ☐ OR NO(2) ☐ PARTMEET:_____

3. IF YES, DID YOU FIND THE MEETINGS HELPFUL?

YES(1) ☐ OR NO(2) ☐ HELPFUL:_____

A. IF YES, HOW WERE THE MEETINGS HELPFUL? HOWHELP:_____ {POSTCODE}

_____

_____

B. IF NO, WHY WERE THEY NOT HELPFUL? NOTHELP:_____ {POSTCODE}

_____

_____

4. DO YOU WISH TO PARTICIPATE IN THE FARMER GROUP NEXT YEAR?

YES(1) ☐ OR NO(2) ☐ NEXTYEAR:_____

III. GENERAL QUESTIONS FOR EACH TRIAL

NAME OF TRIAL _____ DVDU:_____

1. WHY DID YOU CHOOSE THIS TRIAL?

_____

_____ _____ CHOOSE:_____ (POSTCODE)

2A. WAS THE TRIAL IMPLEMENTED AS PLANNED? PLANNED:_____

YES(1) ☐ OR NO(2) ☐

2B. IF NO, WHAT PROBLEMS OCCURRED?

_____

_____

3. DID THE TRIAL FAIL? FAIL:_____

YES(1) ☐ OR NO(2) ☐

A. IF YES, WHEN? WHENFAIL:_____

1-BEFORE PLOUGHING ☐
2-BEFORE PLANTING ☐
3-BEFORE WEEDING ☐
4-BEFORE HARVESTING ☐

B. WHY? WHYFAIL:_____ (POSTCODE)

_____

_____

4A. DID YOU FIND ANY BENEFITS FROM THIS TRIAL? BENEFITS:_____

YES(1) ☐ OR NO(2) ☐

4B. IF YES, WHAT? WHATBENE:_____

_____

_____

IV. FODDER TRIALS

DVDU:_____

1. LIST THE FODDER CROP VARIETIES PLANTED:

CROP:

1).____ CROP1:_____

2).____ CROP2:_____

3).____ CROP3:_____

2. WAS THE TRIAL PLANTED EARLY, LATE, OR MID-SEASON? WHENPLNT:_____

EARLY(1) ☐ LATE(2) ☐ OR MID-SEASON(3) ☐

3A. DID ALL THE FODDER CROPS MATURE? MATURE:_____

YES(1) ☐ OR NO(2) ☐

3B. IF NO, WHICH FODDER CROPS FAILED AND WHY?

CROP: REASON FAILED:

1).____ ____ FAIL1:_____

2).____ ____ FAIL2:_____

3).____ ____ FAIL3:_____

4. DID ANY OF THE FODDER RIPEN TOO EARLY AND GET DAMAGED BY THE RAIN? RIPEN:_____

YES(1) ☐ OR NO(2) ☐

5. WHAT WAS THE AREA PLANTED TO FODDER?

CROP:

1).____ ARCR1:_____

2).____ ARCR2:_____

3).____ ARCR3:_____

6. HOW MUCH GRAIN WAS HARVESTED? GRAINHAR:_____

QUANTITY _____ UNITS _____

7. HOW MUCH FODDER WAS HARVESTED? FODDHAR:_____

QUANTITY _____ UNITS _____

8. WERE THERE ANY PROBLEMS WITH THIS TRIAL? (INCLUDE WEEDS, INSECTS AND BIRDS HERE) PROBLEMS:_____ (POSTCODE)

_____

_____

_____

_____

9. WOULD YOU LIKE TO PLANT FODDER AGAIN NEXT YEAR? TRYAGAIN:_____

YES(1) ☐ OR NO(2) ☐

10A. WOULD YOU LIKE TO PLANT FODDER ON A LARGER PART OF YOUR FIELD NEXT YEAR? ADOPTION:_____

YES(1) ☐ OR NO(2) ☐

10B. WHY OR WHY NOT?

_____

_____

_____

_____

V. COWPEA VARIETY TRIALS

D'DU:_____

1. LIST EACH VARIETY YOU PLANTED. NEXT TO EACH VARIETY LIST THE PLOUGHING METHOD (DOUBLE PLOUGH=1, SINGLE PLOUGH=2), AND THE PLANTING METHOD (ROW PLANT=1, BROADCAST=2).

VARIETY:	PLOUGHING METHOD:	PLANTING METHOD:		
1)._____	_____	_____	PLOW1:____	PLNT1:_____
2)._____	_____	_____	PLOW2:____	PLNT2:_____
3)._____	_____	_____	PLOW3:____	PLNT3:_____
4)._____	_____	_____	PLOW4:____	PLNT4:_____

2. RANK THE VARIETIES FROM 1 TO 4 ACCORDING TO WHICH HAD THE MOST PLANTS, 1=MOST PLANTS, 4=LEAST PLANTS. ALSO RANK THE VARIETIES ACCORDING TO WHICH HAD THE MOST VIGOUR. [VIGOUR MEANS THOSE PLANTS WHICH WERE LARGER AND GREW FASTER EARLY IN THE SEASON].

VARIETY:	MOST PLANTS:	MOST VIGOUR:		
1)._____	_____	_____	MOPL1:____	MOVG1:_____
2)._____	_____	_____	MOPL2:____	MOVG2:_____
3)._____	_____	_____	MOPL3:____	MOVG3:_____
4)._____	_____	_____	MOPL4:____	MOVG4:_____

3. INDICATE YES OR NO NEXT TO EACH VARIETY WHETHER YOU HAD A WEED PROBLEM, RE-PLANTING WAS NECESSARY, THINNING WAS NECESSARY, OR YOU APPLIED FERTILIZER.

VARIETY:	WEED PROB:	RE-PLNT:	THIN-NED:	FERT-LIZER:
1)._____	____	____	____	____
2)._____	____	____	____	____
3)._____	____	____	____	____
4)._____	____	____	____	____

CODING:

WEED1:____	REPT1:____	THIN1:____	FERT1:____
WEED2:____	REPT2:____	THIN2:____	FERT2:____
WEED3:____	REPT3:____	THIN3:____	FERT3:____
WEED4:____	REPT4:____	THIN4:____	FERT4:____

4A. DID YOU HAVE PROBLEMS WITH ANY VARIETY? VARPROB:_____

YES(1) ☐ OR NO(2) ☐

4B. IF YES, LIST THE VARIETIES AND THE PROBLEMS.

	VARIETY:	PROBLEMS:	
1).	_____	_____	PROB1:_____
2).	_____	_____	PROB2:_____
3).	_____	_____	PROB3:_____
4).	_____	_____	PROB4:_____

5. WHICH VARIETIES DID YOU LIKE THE MOST AND WHY?

_____

_____

_____

6. WHICH VARIETIES DID YOU LIKE THE LEAST AND WHY?

_____

_____

_____

7. WHICH VARIETIES WOULD YOU LIKE TO PLANT AGAIN NEXT YEAR?

_____

_____

_____

8. WERE THERE ANY OTHER PROBLEMS WITH THE TRIALS?
(INCLUDE INSECTS AND BIRDS HERE)

_____

_____

_____

_____

VI. ROW PLANTER

DVDU:_____

1. WHICH ROW PLANTER DID YOU USE? ROWPLANTER:_____

1-MASTER HAND ROW PLANTER ☐

2-SEBELE ROW PLANTER ☐

3-SEBELE PLOUGH/PLANTER ☐

2. WOULD YOU USE THE ROW PLANTER AGAIN? USEAGAIN:_____

YES(1) ☐ OR NO(2) ☐

2B. IF YES, WHY?_____ WHYUSE:_____

_____

2C. IF NO, WHY NOT?_____ WHYNOT:_____

_____

3. HOW WERE SOIL MOISTURE CONDITIONS WHEN YOU PLANTED? SOILMOIS:_____

_____ OPTIMAL MOISTURE
_____ TOO DRY TO PLANT
_____ TOO WET TO PLANT

4. WAS THE NUMBER OF PLANTS IN THE TRIAL PLOT GREATER OR LESS THAN TRADITIONALLY PLANTED PLOTS? PLNTNBR:_____

GREATER(1) ☐ LESS(2) ☐ OR THE SAME(3) ☐

5. DID THE PLANTS GROW FASTER OR SLOWER IN THE TRIAL PLOT THAN IN TRADITIONAL PLOTS? GROWFAST:_____

FASTER(1) ☐ SLOWER(2) ☐ OR THE SAME(3) ☐

6. WERE THERE ANY PROBLEMS WITH THIS TRIAL? PROBLEMS:_____
(INCLUDE WEEDS, INSECTS AND BIRDS HERE) (POSTCODE)

_____

_____

_____

_____

7. WOULD YOU LIKE TO TRY THIS PLANTER ON A LARGER PART OF YOUR FIELD?

ADOPTION:_____

YES(1) ☐ OR NO(2) ☐