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ADAR WORKPLAN 2005

**VISIT REPORT INCLUDING PRODUCT ACTION PLANS
AUGUST 13TH – 19TH 2001**

August 2001

This publication was produced for review by the United States Agency for International Development. It was prepared by James Cartwright & Jumapili Rwahungu for Chemonics International.

ADAR RWANDA AGRIBUSINESS DEVELOPMENT ASSISTANCE

A Task Order under the RAISE IQC Rural and Agricultural Incomes with a Sustainable Environment

Contract No. PCE-I-00-99-00003-00, Task Order No. 807

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

**AGRIBUSINESS DEVELOPMENT
ASSISTANCE TO RWANDA – ADAR**

**VISIT REPORT INCLUDING PRODUCT
ACTION PLANS**

**Prepared for:
ADAR project
Kigali
Rwanda**

**James Cartwright &
Jumapili Rwahungu
August 13th – 19th 2001**

1. **BACKGROUND**

The USAID/Chemonics ADAR Rwanda project started in early 2001. James Cartwright who is acting as a recurring consultant on the project visited from August 13th to 19th 2001. This was his third visit to the project having first been briefly involved with the design phase in early 2000 and then visiting again in April 2001, to help define the major crop initiatives that will be followed over the three year life of the project. During this third visit James Cartwright worked with a Rwandan counterpart Jumapili Rwahungu and this report outlines their findings and the necessary follow-up actions.

The April visit defined the major opportunities as coffee, tea and pyrethrum and there is now significant project activity in the coffee and pyrethrum sectors. This visit report should be read in conjunction with the report of the April visit, which went into some detail as to why these commodities have been chosen. The purpose of the current visit was to develop action plans in selected horticultural products that are considered to have further export potential.

2. **PRODUCT SELECTION**

There is a need both from the Rwanda perspective and also from the ADAR perspective to help develop some export models, which other entrepreneurs may follow. There is a lack of experience and lack of confidence in the horticultural export sector and it is a legitimate role of ADAR to work closely with a number of exporters to help them develop their businesses to a level at which they become truly sustainable, which in effect means continuously profitable.

Product selection has been based on those products that grow well in Rwanda, but where the full export potential has not been realised. The products chosen for export development, passion fruit, physalis (cape gooseberry), french beans and an organics range which would include passion, physalis and apple banana are all products that are, or have been grown in the past. In all these products except french beans, there is already some export activity, but it needs to be developed to a more professional level and this is where ADAR and the product action plans will help significantly.

Success with these first target products would then attract other investors to further develop horticultural exports.

3. **ACTION PLANS**

3.1 **Passion fruit and physalis**

As discussed in my last report there are a number of initiatives that ADAR need to follow to develop passion and physalis exports. These are again copied below;

1. *As a general measure ADAR needs to start a dialogue with ITC, CBI and in particular COLEACP, all of whom can provide much needed information about export markets, prices and other issues relating to horticultural exports. A close relationship with COLEACP could be very beneficial to the project. **Does James have thoughts on how***

to develop this beneficial relationship with COLEACP? This is not specifically addressed. Does he have contacts within COLEACP? Should we be inviting them to Rwanda? (I don't know how they work, but if they are important then let's get them involved. Maybe James can help us to do that.)

2. *Contacting importers in initially France and Belgium with Germany, the Netherlands and the UK to follow, these being the key destinations. Initial contact should be to ascertain prices and demand on an all year round basis. **In all cases where such contacts are being made by a consultant, part of the SOW for the consultant should have them pass to us all the relevant information pertaining to these contacts.***
3. *Development of a business plan by the entrepreneur with assistance from ADAR and specific technical expertise. **Jean Bosco should be involved on this with assistance from any consultant we may engage***

The following steps for the entrepreneur would then depend on the outcome of steps 1 & 2.

4. *Organising smallholder schemes and smallholder production on a professional basis to ensure that continuity of product and quality is assured. ADAR could/should have a continuing technical/marketing, business development role to play. **See workbook I am sending on smallholder schemes.***
5. *Identifying an appropriate, but high quality packaging source. Good quality packaging is very important, not only to ensure delivery of a good quality product, but also to ensure impact at point of sale. **Does such a local source exist?***
6. *Trial shipments to identified importers in key markets. These would be paramount to the future success of the venture. ADAR would have to be involved in this process i.e. in the grading and presentation of the trial shipments and as importantly with the follow-up to get importers reactions. This process has to be done professionally, you do not get many chances and if the process is handled badly and in an amateur fashion, not only will no business develop, but it places barriers that have to be overcome by other potential exporters that may follow. It is very easy to give a whole country a bad reputation.*
7. *Building of a small grading center with cold storage. **Ideas on how to finance it? This is another business plan that Jean Bosco can help write.***
8. *First commercial exports which again would have to be monitored carefully by the exporter with ADAR assistance on picking and post-harvest management*

More specifically following the last visit a detailed action plan has been developed (Table 3.1) which it is proposed that ADAR follows. This gives the actions, timings and time input by the consultants. What is also included is the suggestion that a European based consultant undertakes a market survey on volumes, trends and prices of both passion fruit and physalis. This work should be relatively straightforward for passion fruit where there is some EU statistical base. However, it would be more complicated for physalis as there are no official statistics, it being imported in a miscellaneous category such as "other fruits". It is considered necessary to do the market survey to ascertain the level of the opportunity for Rwandan passion and physalis, especially as the two key exporters of passion to the EU, Zimbabwe and Burundi, have significant political problems at present. The suggested consultant is

Peter Jaeger who is very familiar with this sort of work. **Again, be sure the names and necessary info on all contacts is passed to ADAR.**

To date one of the most active entrepreneurs trying to develop passion and physalis exports has been Mrs Alphonsine Mutabonwa of Giperi Fruits. Her experiences are typical of anyone trying to enter and develop an export market and she should be a prime target for ADAR assistance, where the action plan may help her develop a sustainable export business.

Table 3.1: Passion fruit/physalis action plan

Is JR up to this work? Or will he require oversight? If yes, by whom, as JC is not around on a permanent basis?

ACTION	COMPLETED BY	ADAR Cost share	Persons involved and time input – days				OVERSEAS CONSULTANT
			JC	JR	ADAR	SPONSOR	
Find and select exporter	30/9/01				**		
Market contacts	30/9/01		** 1			**	
Production costings and gross margin calculations	30/0/01		** 0.5	** 2	**	**	
Supply survey – prices, seasonality, volumes	30/9/01			** 4	**	**	
Select packaging type and supply source	30/9/01		** 0.5	** 0.5		**	
Purchase and delivery of trial shipment packaging	14/10/01	***?	** 0.5	** 0.5		**	
Organise growers and suppliers	14/10/01			** 4		**	
Field training on product standards and packing	14/10/01		** 0.5	** 2	**	**	
Ensuring correct docs, phyto, EUR1 etc	14/10/01			** 0.5		**	
Airline discussions/ negotiations	14/10/01		** 0.5	** 0.5		**	
EU market survey – prices, trends, volumes	14/10/01						** 5 Peter Jaeger
IF ALL OK THEN ↓↓							
Trial shipments	28/10/01	**	** 0.5	** 2	**	**	
Trial shipment follow- up, including payment and cash repatriation	28/10/01		** 1	** 3		**	
Organise supply schedule	11/11/01			** 1		**	
CONSULTANTS TIME INPUT			5	20			5 – no travel

Is the timeframe realistic? The LOE seems appropriate but can the work get done over the next three months?

3.2 Organics

It is as well to repeat what was stated in my last report about the organics market in the EU.

The market for organically grown produce is growing rapidly within Europe and at present there are good opportunities within this sector. The market is being driven by such factors as greater consumer awareness about what they eat and the concept of healthy eating, all of which is again linked to a seemingly increasing number of food scares, either real or perceived. The other important factor to mention in the Rwandan context is the strong link between the consumers who buy organic food, those that buy exotic fruits, those who want to eat more healthily and those that want to believe that they are helping the less fortunate i.e. the impoverished African farmer by buying Fair Trade items. To a large extent this linkage is with the better educated consumer, who not only thinks more about what they eat, but also have the income to buy in a more discretionary fashion.

As by default much of what is produced in Rwanda is already organic i.e. produced without artificial fertilizers or pesticides, it should not be difficult to commercially exploit this advantage. Emballage Rwanda is already doing so, exporting two to three tonnes of produce per week, consisting of mainly apple bananas and passion fruit, with sometimes mangoes and avocados.

For produce to be sold in the EU as being organic, organic production methods have to be followed and the production certified by one of a number of accredited organic certification bodies, one of which is Ecocert, which has certified Emballage Rwanda. This involves an annual audit of the production process, paid for either by the producer or by the importer of the organic produce. If organic production and exports are to be expanded it seems that there could be a number of initiatives that should be facilitated by ADAR;

- *The formation of an organic group within the framework of a horticultural exporters association. **Does a horticultural exporters association exist? Is it strong enough to take on organics?***
- *Organisation of the cost sharing of organic certification inspections.*
- *The organisation of a workshop on organic production and certification. This could be tied in to a more general consultancy visit on organic production methods.*

As for enterprise level initiatives, the action would be very similar to those described for passion fruit, i.e. market contacts, business plan, packaging and presentation, trial samples.

A detailed organics action plan has now been developed (Table 3.2). This has some similarity with that for passion and physalis giving specific actions, timings and consultants time inputs. It is also suggested that a specialist organics consultant is employed. This is a specialist area and needs to be reviewed by someone experienced in the development of organic production in Africa, especially from a smallholder production base. It is proposed to use Susie Burgess who is an expert on this sector in Africa and a scope of work has been written, which is presented in Annex 1 along with Susie's resume. A visit by Susie could help the organic certification process, review the organics production base, help with farmer training and could end with a seminar dedicated to organic production and market development. **As I understand it, even though the table 3.2 does not specifically identify any crops, we are really only considering passion fruit, goose berries, and apple bananas, right? If so, we should make the plan as specific as possible to these commodities.**

As for Susie, she certainly would appear to have the expertise. However, I noticed that she does not speak French and, unlike Cartwright, has not even tried working with or through interpreters. How important in your opinion is French for this work?

Since the April consultancy visit, Emballage Rwanda (ER), which it is suggested would be the best company to work with in developing organic exports, has ceased trading with Tanganika Nature (TN) in Belgium. As it was TN who held the organic certification and not ER, it means that ER has to be re-certified before being able to again export organic products. This is an expensive process involving an inspector/auditor flying out from Europe, with the company to be inspected paying for the airfare, living costs and daily fees. It is estimated at this stage that this would cost in the region of US\$5,000. Could ADAR share some of this cost with ER? I would suggest that this is a legitimate input by the project and as ER are somewhat of a trail blazer and need encouraging, that perhaps a 75%:25% cost share by ADAR:ER could be considered.

Why has ER ceased trading with Tanganika Nature? Why work only with ER? What about Inyange Dairy and Prime Organic Foods? I'm in favor of cost sharing, though would prefer 50/50. Would really like to see some real cash on the table for the certification, rather than just in-kind contributions, which a 25% cost share would allow.

Some discussions have also been held with Jean-Calvin Kayiranga of Inyange Dairy about the EU and international market for both organic and non-organic passion juice. Samples have already been sent to a major trader and it is assumed that through that contact some indication of the commercial viability of juice exports will be obtained. This needs to be vigorously followed up. Who should be following up on this? JR? Jean Claude?

It is also suggested that ADAR should do a costings exercise, at least to gross margin level to ascertain the likely viability of juice exports, before spending more time on what may turn out to be non-viable. **Can Jean Bosco do this?**

Table 3.2: Organics action plan

ACTION	COMPLETED BY	ADAR Cost share	Persons involved and time input – days				
			JC	JR	ADAR	SPONSOR	OVERSEAS CONSULTANT
Find and select exporter	16/9/01				**		
Market contacts	16/9/01		** 1			**	
Production costings and gross margin calculations	16/0/01		** 0.5	** 2	**	**	
Supply survey – prices, seasonality, volumes	16/9/01			** 4	**	**	
Select packaging type and supply source	16/9/01		** 0.5	** 0.5		**	
Organics certification	30/9/01	**	** 0.5	** 3	**	**	** Susie Burgess 3
Sector organics consultancy visit	30/9/01		**	** 5	**	**	** Susie Burgess 5
Purchase and delivery of trial shipment packaging	30/9/01		** 0.5	** 0.5		**	
Organising growers and suppliers	30/9/01			** 4		**	
Field training on product standards and packing	30/9/01		** 0.5	** 2	**	**	** Susie Burgess 2
Organics seminar	30/9/01			** 0.5	**		** Susie Burgess 1
Ensuring correct docs, phyto, EUR1 etc	30/9/01			** 0.5		**	
Airline discussions/ negotiations	30/9/01		** 0.5	** 0.5		**	
IF ALL OK THEN ↓↓							
Trial shipments	14/10/01		** 0.5	** 2	**	**	
Trial shipment follow- up, including payment and cash repatriation	14/10/01		** 1	** 3		**	
Organise supply schedule	28/10/01			** 1		**	
CONSULTANTS TIME INPUT			5.5	28.5			11 + 2 travel + 3 report Total 16

NB: Exact timings will depend on the availability of the overseas consultant **Consutants aside are the times realistic?**

3.3 French beans

Again my last report stated that the key points in reference to the development of french bean exports were;

1. *Identification of entrepreneurs who are interested in developing french bean exports*
2. *Contacting importers, particularly in Belgium and France. Markets that prize the extra fine grade. **Again, we need the contact info.***
3. *Development of a business plan by the entrepreneur with assistance from the ADAR and specific technical expertise. **Is there a role for Jean Bosco here?***

The following steps would then depend on the outcome of steps 1-3.

4. *Conducting crop trials on french bean varieties to ascertain suitability to Rwandan conditions. A pre-selection could be done that would probably amount to about eight varieties of the hundreds that are on offer from the seed houses. Trials to be organized by the entrepreneur/s, but with technical help from ADAR on varieties, trial design, picking & packing standards.*
5. *Identification of suitable packaging and packaging suppliers. It would only be appropriate initially to export in bulk boxes e.g. 2kg cardboard boxes with beans loose packed. Pre-packing options would only come later.*
6. *Trial shipments to targeted importers. These would have to be professionally followed up as importers are inundated with samples and inquiries from new sources, most of which never come to anything. ADAR assistance would be required for this follow up.*
7. *Establishment of smallholder scheme with collection centers, with charcoal coolers and employment of full time agronomic and grading staff. (NB There are well tried and successful models in Kenya).*
8. *Building of a small grading center with cold storage.*
9. *First commercial exports which again would have to be monitored carefully by the exporter with ADAR assistance on picking and post-harvest management*

An action plan has now been developed which outlines inputs and timings (Table 3.3), a detailed french bean trials protocol is given in Annex 2 and the EU standards for french beans in Annex 3.

Maurice, you have to be comfortable with the local investor. If you are not, then don't pursue. Your first instincts are probably right.

Table 3.3: French bean action plan

Again, are the timeframes realistic?

ACTION	COMPLETED BY	ADAR Cost share	Persons involved and time input – days			
			JC	JR	ADAR	SPONSOR
Find and select exporter	16/9/01				**	
Select participating farmers for production trials	16/9/01			** 1		**
Select trial cvs. & organise seed supply to Rwanda	16/9/01	**	** 1	** 0.5	**	**
Distribute seed to farmers and plant first trials	30/9/01			** 2		**
Production costings and gross margin calculations	31/10/01		** 2	** 2	**	**
Market contacts	31/10/01		** 1			**
Select packaging type and supply source	31/10/01		** 0.5	** 0.5		**
Purchase and delivery of trial shipment packaging	30/10/01		** 0.5	** 0.5		**
Ensuring correct docs, phyto, EUR1 etc	30/10/01			** 0.5		**
Airline discussions/ negotiations	30/10/01		** 0.5	** 0.5		**
Recurring trial visits to monitor progress	Continuous		** 2	** 5	**	**
Field training on product standards and packing	30/11/01		** 0.5	** 2	**	**
IF ALL OK THEN ↓↓						
Trial shipments	30/11/01		** 3	** 3	**	**
Trial shipment follow- up	30/11/01		** 0.5	** 1		**
CONSULTANTS TIME INPUT			11.5	18.5		

4. OTHER ACTION

It is still strongly felt that ADAR has to get more involved with the formation of a strong and functional horticultural exporters association. If the few individuals in this sector keep working on their own, without more co-operation, it is difficult to see how the sector will develop. ADAR is in a unique position in facilitating the formation of such an organization and also helping to ensure that it functions effectively.

Agree, but developing an association is a long-term endeavor. Is there a agribusiness person who is willing to champion this cause? Good associations will often start on the backs of one or two individuals who volunteer their time to get it up and running.

5. CONCLUSIONS

ADAR has to rapidly become involved in “hands-on” export development with key entrepreneurs. Action plans have been developed for passion/physalis, organics and french beans. The pursuit of these needs to gain both approval from ADAR and also from the USAID Rwanda mission. However, it is suggested that rather than gaining mission approval for each individual initiative, that a more global scope of work is developed for the key consultants James Cartwright and Jumapili Rwahungu, to cover a twelve month period. This will help a great deal in ensuring there is a rapid response to the need of individual exporters.

ANNEX 1

SCOPE OF WORK: ORGANICS SECTOR REVIEW

Background

The market for organically grown produce is growing rapidly within Europe and at present there are good opportunities within this sector. The market is being driven by such factors as greater consumer awareness about what they eat and the concept of healthy eating, all of which is again linked to a seemingly increasing number of food scares, either real or perceived. Rwanda may be well placed to develop exports in this sector, as by default much of Rwanda's produce is already organic, as the use of artificial fertilisers and pesticides is so limited. Given this background there is a need to undertake a brief review of the sector and then to make specific recommendations as to what interventions are necessary or desirable by ADAR to help develop exports of organically certified produce.

At an enterprise level, the only active and certified organic exporter is Emballage Rwanda. However, they have recently ceased trading with Tanganika Nature (TN), their importer in Belgium. As it was TN who held the organic certification and not ER, it means that ER has to be re-certified before being able to again export organic products. It is proposed that ADAR helps in this process.

Statement of work

- Review the current production base of organic products and in particular passion fruit, physalis and apple bananas
- Review the experiences of the sole organically certified exporter, Emballage Rwanda (ER)
- Develop a strategy with ER to rapidly gain access to the EU organic market
- Ensure that all measures are taken that will ensure a smooth passage to re-certification of ER
- Help with farmer organisation and training to help ensure that produce exported is of sufficient quality
- Review the export plans of Prime Organic Foods, the company that has been established by the Association of Female Entrepreneurs of Rwanda (AFER), and make recommendations.
- Conduct a half day seminar on developments in the EU organics market and opportunities for Rwanda

Level of effort and manning

Eleven days in country, consisting of helping with organics certification –3 days, sector organics review - 5 days, field training on products and packing - 2 days, organics seminar – 1 day. Plus three days at home base to complete the final report and do any necessary market follow up and two days travel.

Total 16 days

Specialist

It is proposed to use Susie Burgess, resume attached, who is a leading specialist in Africa in this sector.

Timing

As soon as Susie Burgess is available, but preferably before mid – October.

CV of SUSIE BURGESS

Personal Details:

Date of Birth: 15th February 1962

Nationality: British

U.K address: Windrush, Carisbrook, Chiseldon, Wiltshire, SN4 OLW.

Permanent address, Zambia: P.O Box 34465, Lusaka, Zambia

Contact numbers: Tel/fax: Lusaka (260-1) 265208. Email: susie@organic.org.zm

Marital Statue: Married. Married name: **Susan Alison Burgess.**

Further Education:

1990 – 94 The University of Portsmouth, Faculty of Seale Hayne, Devon.

Bachelor of Science Honors Degree in Sustainable Land Use Management.

1988 – 89 The University of Reading Berkshire

Royal Institute of Chartered Surveyors Foundation Award (correspondence)

1980 – 83 The Welsh College of Agriculture, Usk, Gwent.

H.N.D Agriculture, later upgraded to Degree in Agriculture.

Additional Certificates and Course Attainments:

- Countryside Management course attainments include: Countryside management planning, visitor management, exhibitions and interpretation, surveying, wildlife tracking.
- Two certificates in Permaculture Design.
- Report and media writing courses.
- Several in-company management and marketing courses.
- Two City and Guilds Awards in Livestock husbandry and Farm Management.
- Nutritional therapy and naturopathy.
- Four Craftsmanship Awards (practical farming).

Memberships:

Permaculture Design Guild
International Seed Savers Network.
Association of Countryside Managers
Association of Herbal Medicine
WWF (past branch sect)

Core Skills:

Sustainable and Organic agricultural production (technical advisor).
Organic marketing advice and network portfolio
Organic certification procedure
Small-hold farmer training in soil conservation, fertility building and methods of natural farming.
Business and project management, planning and project design.
Community seed bank development.
Natural products development
Land-use appraisals
Commercial agricultural diversification schemes

Additional Skills:

Food garden/orchard design and management.
Interpretation and extension material.
Consultation and negotiation for government support schemes with rural communities.
Wide practical experience and proficiency in most agricultural and horticultural areas – especially plant and livestock husbandry and production.
Nutritional health, complimentary medicine.
Operation of most computer systems and office equipment.
Full driving license - car and motor bike.

Employment Record:

Sept. 97 until Present time:

Full and part time Consultancy.

Sustainable land-use management Advisor. Technical Organic Advisor.

Management and rural business plans. Technical advise for organic production. Project co-ordination. Organic certification and marketing. Advisory services for ‘farm and conservation stewardship’. Formal training and teaching in the latter. Ecological land-use appraisals. Interpretation material, consultation documents, advisory literature, promotional material. Farming and rural community consultation and liaison. Grant applications and project proposals.

**Consultant partner of the Organic Advisory Service c.c, Southern Africa.
Spier, Stellenbosch, Cape Town.**

Completed and on-going contracts and commissions for:

- . E.U
- . DFID
- . GTZ
- . USAID
- . Commonwealth Development Commission
- . Organic Producers and Processors Association of Zambia
- . Shire Highlands Organic Growers Association, Malawi
- . Organic Advisory Service, Elm Farm, UK
- . Biological Farmers Association, Australia
- . Ministry of Agriculture, UK/Malawi/New Zealand
- . Natural Farming Network, Zimbabwe
- . Countryside Commission, UK
- . Seed Savers Network, Australia
- . Wayward Trust (Seed Security Unit) UK
- . Lincoln University, New Zealand.
- . Grassland Research inst. Australia
- . SACDEP, (Sustainable Agriculture and Dev.) Kenya
- . Environmental Dept. of County and District Councils, UK.
- . PELUM, Zimbabwe
- . Lycee Agricole et Horticole, France.

Reference to specific consultancy/commissions:

- Technical Organic Advisor and Coordinator, Shire Highlands Organic Growers Association, Malawi.

Arrange the project funding Shire Highlands Organic Growers Association (SHOGA) from the E.U, to set up and develop an Organic Advisory Service for SHOGA. Established an office base, information resource and newsletter, staffing and a team of field extensionists, conducted training, advisory service to small farmers and growers, smallholder groups and outgrowers schemes, conducting training programs, demonstrations and farmer exchange groups, model farm and lead farmer extension frameworks, etc... Also developed the marketing base and promotional material, and the foundations for a regional (east and south east Africa) organic association.

- Technical Organic and business Advisor to Zambili d'Afrique and Traidcraft

Development of the client base of viable producer groups, market activity and selected Fair-trade enterprises for commercial organic production comprising small producer operations and outgrower schemes together with larger commercial organic farmers, establishing and stimulating the development of an organic export markets in Zambia. Organizing and running workshops, associated Gov and NGO trainer/extension office training. Project and producer evaluation.

- Technical Organic Advisor and Coordinator, Organic Producers and Processors Association of Zambia.

Similar function to the that conducted for SHOGA in Malawi.

- Technical Organic Advisor, Commonwealth Development Commission, Zambia & Kenya.

Central advisory input to the development of organic commercial vegetable production enterprises in Zambia and Kenya, for export to the major supermarket chains in the U.K; a tea project in Tanzania and a smallholder specialty mushrooms and coffee program in Zambia .

- Organic seminars for International Trade Center and Regional Seminar-workshop –Organic.

Obtained sponsorship from ITC and organised the seminars on the potential and opportunities of Africa's participation the international organic marketplace, held in Malawi, Mozambique and Zambia.

Obtained sponsorship and organised the internationally attended 2 day seminar-workshop focused on the prospects of developing a regional co-ordination body for organic marketing, certification, information network, advise and training. This has resulted in the formation of the Organic Producers and Processors Association of Zambia (OPPAZ) and a regional organic body, yet to be formalized.

- Technical Organic Advisor and trainer to two independent project, Mozambique and two in Tanzania

Organic small producers schemes, banana and cashew nut production and processing for export to markets in the USA. Also organic production and processing of pressed oils and tea for export to Europe.

- Organic Advisor, Elm Farm Organic Research Center, Berkshire, U.K.

Provided technical advice on organic production, assisted initial farm appraisals, compiled detailed reports and maps for accreditation process. Grant applications for the Ministry of Agriculture, Organic Aid Scheme.

- Natural Farming Network and PELUM, Harare, Zimbabwe.

Assisted in project management and project proposals. Research in to herbal medicine for small producer organic livestock production (including project support, funding proposal and working structure).

- Biological Farmers' Association, Brisbane, Australia.

Consultation document for the formulation of a central regulating body for accredited organic producers. Researched and produced document on co-operative marketing schemes.

- Countryside Stewardship Scheme, ADAS, Ministry of Agriculture, Devon, U.K.

Two consultancy contracts (each of nine months). Assessment and negotiation of Stewardship Agreements with the farming and rural community. Management plans.

- Seed Savers Network, NSW, Australia.

Assisting the development of the international community seed bank scheme in the eastern and pacific regions. Included; project proposals, volunteer training, land negotiation, forward planning and three year business plan. Detailed training course completed in seed banking, multiplication and recording systems (for application at a rural community level and for international operation).

- Tyalgum Permaculture Institute, NSW, Australia.

Assisted in the organization and teaching of two courses in Permaculture Design with Bill Mollison.

- International Seed Security Unit.

Produced project proposal, acquired 3 year funding, initiated a seminar in London between all relevant private and public sector agencies and organizations, produced working documents for consultation, organized a meeting at HDRA to select a management team and progress the proposal further before handing over to Intermediate Technology and Development Group,UK. Consultation continues through periodic meetings as a member of the management team.

- PROSCARP, Kasungu ADD, Malawi.

One year contract which involved devising and conducting training courses in small holder horticulture, orchard production and management, communal garden establishment, school orchard scheme and assisted with training and operations program for developing land/soil conservation techniques in rural areas. Also provided advice on field crop husbandry and diversification.

June 87 Bruton Knowles Chartered Surveyors, Gloucester. UK

June 90

Land Agent for country property, land and estate management.

Development and diversification schemes.

Business plans, planning applications, grant applications.

Oct 86 Hawkins and Harrison, Chartered Surveyors, Rugby, UK.

June 87

Land Agent.

Set up and operation of the farm and country Property Unit. Valuations, marketing and sale of country property, land and farms.

Sept. 85 A.D.A.S Unit M.A.F.F Research Center, Warks. UK

Sept 86

Assistant Research Officer.

Collection, recording and interpretation of trails information for grassland and livestock trails.

June 83 New Zealand and Australia.

Sept 85

Intensive and mainly practical period studying and working on conventional and organic farms and with sustainable systems of agriculture. Specific study commissioned on organic food production, Bos Indicus x Bos Taurus cattle production, diversification in the lowlands, deer farming. Produced news paper and magazine articles and took part in radio interviews.

97 -83 Stockwomen, Pre-college experience. Wiltshire, UK.

Proficiency in most livestock and crop husbandry tasks and management gained during this time.

Interests and Hobbies:

Horse riding, wildlife study, walking and trekking, cycling, wildlife photography. Natural methods of agriculture and organic food production. The modern and historical utilisation of herbs, plant derived therapies/medicines. Agro-biodiversity - ingenious and landrace 'seed saving' (multiplication, banking etc..). Involved in an international Seed Security Program to develop heritage/farmer-bred food crop seed through information exchange and community networks. Dietary therapy and health. Rare breeds survival. Craft.

ANNEX 2

FRENCH BEAN TRIALS PROTOCOL

ADAR 2001/02

Background

Around 57,000 tonnes of french beans are imported into the EU market per annum. These are sold in three size grades, bobby beans, fine beans and extra fine beans. Bobby beans, the largest grade, are generally an inferior product and command lower market prices than the other two grades. Different countries in the EU have different market requirements (Table A1).

**Table A1: French bean market main preferences
by major importing countries in EU**

Country	Extra fine	Fine	Bobby
UK	*	**	**
France	**	**	*
Germany	*		**
Holland	*	*	**
Belgium	**	**	*

Egypt has for many years been a large scale exporter of bobby beans to the European market and Kenya a large scale exporter of fine beans. Both countries export to the EU market in the region of 17,000 tonnes per annum each. There is a smaller but higher priced market for the extra fine grade which are particularly prized in France and Belgium. There is no obvious agronomic reason why Rwanda cannot grow and export fine and extra fine beans, and indeed did so in the past. In order to exploit this opportunity, trials work is to be undertaken to identify varieties suited to Rwandan conditions, that can produce economic yields of high quality fine and extra fine beans for export.

Objectives

1. To select french bean varieties that will be suitable under Rwandan conditions for the production of good yields of high quality fine and extra fine beans.
2. To produce sufficient volume from the trials to export samples to the EU market.

Varieties

Amy, Samantha, Paulista (all from Royal Sluis whose local agent is Regina Seeds in Nairobi). These varieties in recent years have become the market standard from East Africa (Table A2).

Table A2: ADAR Trials variety size grades

Variety	Extra fine	Fine	Bobby
Paulista		**	**
Samantha	**	**	
Amy	**	**	

Site selection and bed preparation

It is intended to select six trial sites for each of 2 planting dates giving twelve trials in total with smallholder farmers that are already familiar with bean production for export, having produced this crop in the past. It is anticipated, at least to start, that with all these trials will be located near to Butare.

All trials must be on flat, well drained, relatively stone free sites with access to a reliable water supply for irrigation. It is essential that all trial sites have the facility to irrigate throughout the life of the trial as it is impossible to grow a quality french bean if the crop is subjected to drought stress. Within reason soil type is not so critical as beans will grow well in most fertile well managed soil within the pH range of 5.5 to 7.5.

Ground preparation must result in a firm seed bed, but with no compaction or plough pan, as beans have a weak root system that is incapable of penetrating through compacted soil.

Timing

The first six trials should be planted before the end of September and the second six, four weeks later (Table A3).

**Table A3: ADAR French bean trials
Implementation schedule 2001/02**

Wk No	Wk. Comm (Sunday)	Planning seeds, farmers	First trials	Second trials	Trial shipments	Write up
35	Sep 2	**				
36	Sep 9	**				
37	Sep 16	**				
38	Sep 23	**				
39	Sep 30		Planting			
40	Oct 7					
41	Oct 14					
42	Oct 21					
43	Oct 28			Planting		
44	Nov 4					
45	Nov 11					
46	Nov 19					
47	Nov 25		Harvest			
48	Dec 2		Harvest		**	
49	Dec 9		Harvest		**	
50	Dec 16		Harvest			
51	Dec 23			Harvest		
52	Dec 30			Harvest		
1	Jan 6			Harvest	**	
2	Jan 13			Harvest	**	
3	Jan 20					**
4	Jan 27					**
5	Feb 3					
6	Feb 10	3 rd and larger trial series dependent on results				
7	Feb 17					
8	Feb 24					

Trial design and size

There are two objectives, firstly to obtain good comparative data on yield and quality parameters between varieties, and secondly, to grow sufficient quantities to make sample shipments to the European market.

Trial design

Plot size	10 metre long beds x 2 rows per bed
Replicates	2
Varieties	3
Trial size	60 metres of bed
Number of trials	6 in each series 12 in total
Total area of trials	360M2 in each series

360 M2 should be a sufficient area to get 10kgs of extra fine beans per day.

Total yield 5000 tonnes/ha ÷ 21days = 238kgs/day/ha = 8.57kgs day/360M2

If the quantity is bulked up for two days this will give about 20kgs which would be sufficient for a trial shipment

Planting configurations and seed rates

There are many different planting configurations that can give a good crop and the number of rows per bed can be altered from 2 to 4 to suit individual planting systems, but the overall objective is to have about 25 plants per M2.

The seed rate varies according to the seed count which can vary from 14kgs/100,000 seeds to over 20kgs/100,000 seeds, but a rough estimate is 50 – 60 kgs/ha.

Fertiliser

Fertiliser rates as with all crops depend on base levels in the soil. However, normally around 100kgs/ha of N, P & K are needed to maximise yields. Actual fertiliser used and recommended will depend on what is available in Rwanda It should be noted that N needs to be applied carefully, as plants that become too lush tend to yield less.

Irrigation

Irrigation obviously depends on factors such as temperatures, soil type and crop stage. However, it should be noted that there is a danger of over-irrigating, resulting in poor, diseased root systems and, therefore, poor growth and yields.

Pest & disease control

A pest and disease control programme for the trials will be written when it is known what pesticides are commonly available in Rwanda. It should be noted that this programme must be strictly followed, so that pesticides that are prohibited in the EU market are not used. Random samples for residue analysis are taken both on entry into the EU and also by the large supermarket chains. If prohibited pesticides are found or residues of permitted pesticides above the legal limit, this will lead to the exporter being banned from the EU market.

Harvest methodology

The aim should be for a daily harvest, although under cool conditions, especially with fine beans, it is possible to pick every other day. Beans should be picked into clean harvesting trays and then placed under shade structures at the side of the field. It will be essential to closely monitor the harvest to ensure that only beans at the correct maturity stage are being harvested. Yield and quality assessments will be undertaken at this stage. Commercially beans must then be transported to a cooler, with the maximum allowable period between harvest and placement in the cooler of 1½ hours. Once cool, beans can be packed in the market boxes. For the purpose of the trials programme, if there is no coldstore available in Butare, it will be necessary to build a small charcoal cooler near to the trial sites. This will keep the beans cool prior to transport to Kigale where it is hoped that they can then be cooled prior to export.

The official EU standards for french beans are attached as Annex 3. However, in practice extra fine beans will be assessed as straight blemish free beans having a diameter of less than 6mm and a length of more than 10cm. Fine beans will be assessed as straight blemish free beans having a diameter of between 6mm and 8 mm and a length of more than 10cm.

Assessments

- Gross yield plot
- Net yield plot after grading to the market specification
- Days to first harvest
- Harvest duration
- Disease and pests levels – if present

ANNEX 3

EU STANDARDS FOR FRENCH BEANS

There are clearly defined and detailed standards for french beans. The minimum requirements are that the beans must be;

- whole and intact,
- sound: rotting and deteriorating produce which is unfit for consumption must be excluded,
- clean and practically free of foreign matter,
- fresh in appearance,
- free of damage by insects and/or other pests,
- free of abnormal external moisture,
- free of foreign taste or smell,
- able to withstand transport and handling and arrive in satisfactory condition,
- the contents of each package should be uniform in terms of origin, variety and quality, and in the case of fine and extra fine beans, the same size.

Beans are divided into two groups, fine and extra fine being one and bobby beans being the other.

Fine beans are graded into three classes, Extra class, Class 1 and Class 2 while bobby beans are divided into two classes , Class 1 and Class 2.

Extra class fine beans must be of superior quality. They must be turgescient, very tender, seedless, stringless and free from defects. Extra class must be classified as extra fine and must have a maximum pod width of 6mm. Quality tolerance is that no more than 5% of the beans can fall short of Extra Class quality and then not below Class 1 standards. A maximum of 10% can be outside the size specification.

Class 1 fine beans must be of good quality but slight colour defects , soft seeds and short soft strings are allowed provided that they do not affect the general appearance of the product. Beans can be graded to two sizes – extra fine with a maximum width of 6mm and fine with a maximum width of 9mm. Quality tolerances are that no more than 10% of the beans fall short of Class 1 quality standards and then not below Class 2 standards, but no more than 5% may have strings.. A maximum of 10% may be outside the size specifications.

Class 2 fine beans must satisfy the minimum requirements, be superficially tender and the seeds should not be large. Slightly superficial blemishes are allowed provided the beans retain their essential characteristics of quality, shelf life and presentation.

Class1 bobby beans must be of good quality. The beans must be young and tender, stringless, easily broken and practically free of spots caused by wind but free of other blemishes. The seeds must be small and tender. The quality tolerances are the same as those for Class 1 fine beans.

Class 2 bobby beans must satisfy the minimum requirements. They must be reasonably young and tender. Provided that the beans retain their essential characteristics of quality, shelf life and appearance, the following defects are allowed: the seeds can be slightly larger than those in Class 1, slight superficial blemishes caused by wind are acceptable, but must be free of rust spots. Beans with strings are allowed.