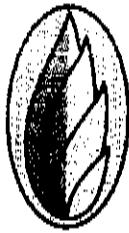


HSRC RESEARCH OUTPUTS  
3530



2005

# Program

***PARTICIPATION AND LINKAGES FOR IMPROVED  
EXTENSION DELIVERY***

**39<sup>th</sup> Annual Conference of the  
SOUTH AFRICAN SOCIETY FOR AGRICULTURAL EXTENSION**

**President Hotel, Bloemfontein, Free state**

**DEELNAME EN SKAKELING VIR VERBETERDE  
VOORLIGTING VOORSIENING**

**39<sup>ste</sup> Jaarlikse Konferensie van die  
SUID-AFRIKAANSE VERENIGING VIR LANDBOUVOORLIGTING**

**President Hotel, Bloemfontein, Vrystaat**

**MONDAY, 9 MAY 2005 / MAANDAG, 9 MEI 2005**

15:00 – 17:00 Early Registration

16:00 – 19:00 Board Meeting

**Supper: Own arrangements**

**TUESDAY, 10 MAY 2005 / DINSDAG 10 MEI 2005**

08:00 – 09:30 Registration / *Registrasie*

09:30 – 09:40 Scriptures and Prayer / *Skriflesing en Gebed*  
**Ds MJ Kofa – DRCA Bloemfontein-South congregation**

09:40 – 09:50 Welcome and Opening / *Verwelkoming en Opening*  
**Mr Peter Thabethe- President SASAE**

09:50 – 10:10 *Opening Speaker / Openingspreker*  
**Mr Louw Steytler – President: Free State Agriculture**

10:10 – 10:30 Keynote address

10:30 – 11:00 Keynote address

11:00 – 11:30 **TEA / TEE**

**FIRST SESSION**

11:30 – 12:00 Realities and Challenges regarding Institutional Linkages for Extension and Rural Development in South Africa – **Prof Gustav Düvel**

12:00 – 12:30 **PANEL DISCUSSION**

12:30 – 13:30 **LUNCH / MIDDAGETE**

**SECOND SESSION**

13:30 – 14:00 Participation and Linkages for improved Extension Delivery: An Experience from Limpopo Province's BASED Programme – **E.M. Zwane**

14:00 – 14:30 Across the divide: Linkages in the absence of extension services – **T.G.B. Hart and R. Burgess**

14:30 – 15:00 Farmer organisations in Zimbabwe: Some lessons for other countries in Sub-Saharan Africa – **Prof J. Mutimba**

15:00 – 15:30 **TEA / TEE**

**THIRD SESSION**

15:30 – 16:00 Participation and linkages to improve extension delivery: The role of the extension worker – **Dr S.E. Terblanché**

16:00 – 16:30 Local and public participation in the eradication of pilgrim grasshopper invasion in Mali – **M. Akeredolu and D. Sylvester**

19:00 **WELCOME BRAAI**

**WEDNESDAY 11 MAY 2005 / WOENSDAG 11 MEI 2005**

08:00 – 09:30 **ANNUAL GENERAL MEETING**

**FOURTH SESSION**

09:30 – 10:00 The effect of participation on all participants in the traditional leafy vegetable project in Arthurstone (Bushbuckridge) – **H.J. Vorster, W.S. Jansen van Rensburg, G.J. Steyn and X.B. Mashele**

10:00 – 10:30 Participatory forestry management in Mali: The case of Faya Forest – **M. Akeredolu and K. Morctar**

10:30 – 11:00 **TEA**

11:00 – 11:30 The role of opinion leadership among maize farmers in Lesotho – **R.F. Williams**

11:30 – 12:00 Improving irrigation management: A learning based approach – **J.B. Stevens (Joe)**

12:00 – 13:00 **LUNCH/MIDDAGETE**

13:00 – 17:00 **FIELD TRIP**

19:00 for 19:30 **FORMAL DINNER/FORMELE DINEE**

**THURSDAY 12 MAY 2005 / DONDERDAG 12 MEI 2005**

**FIFTH SESSION**

08:30 – 09:00 An assessment of human resource development and the effectiveness of training in Mozambique's public extension service – **H. Gêmo**

09:00 – 09:30	Food mountain – a multi-functional agricultural extension project in North West Province, South Africa – <b>J.B. Stevens (Ben)</b>	Causes of low adoption of agro-forestry technology by smallholder farmers in Mafikeng area – <b>K.Y. Asuamah</b>
---------------	--	--

09:30 – 10:00	Reducing poverty and food insecurity by applying in-field rainwater harvesting (IRWH): How rural institutions make a difference – <b>M.N. Baiphethi, M.F. Viljoen, G. Kundhlande, J.J. Botha and J.J. Anderson</b>	Supervisory skills regarding extension management in Sekhukhune District of Limpopo Province – <b>M.C. Mathabatha</b>
---------------	--	---

10:00 – 10:30 **TEA/TEE**

# ACROSS THE DIVIDE: THE IMPACT OF FARMER-TO-FARMER LINKAGES IN THE ABSENCE OF EXTENSION SERVICES

By

Tim Hart<sup>1</sup> & Roberta Burgess<sup>2</sup>

*The literature on recent trends in agricultural development emphasises the importance of extension and research practitioners participating with smallholder farmers in order to improve agricultural development, providing various cases to illustrate this point. The same body of literature also provides examples of networks amongst smallholder farmers that make a crucial difference to local agricultural development by supporting smallholders. These networks are seemingly made up of more or less homogeneous resource poor individuals: sharing their skills, knowledge, inputs, etc. to ensure their ability to produce and to survive. However, in some instances the members of these networks are not homogeneous individuals, but often come from diverse backgrounds, having different access to various resources. During the Apartheid era in South Africa the state extension services predominantly focused on the large-scale commercial farmers and paid scant attention to the smallholder farmers in the various rural reserves. This paper, in the form of a case study, describes the context, initial linkage and relationship between two apple farmers, one a large-scale commercial producer and the other a smallholder, in the south-western cape deciduous fruit producing area. Despite Apartheid legislation and other socio-economic constraints this linkage and subsequent relationship allowed the smallholder to enter the national and the export apple markets during the 1970s and to continue to supply to these markets until today, despite most of his contemporaries having ceased their apple production by the 1970s. This was largely achieved by the farmer's ability to use the subsequent relationship to enable him to innovate his production practices within the confines of his political and socio-economic circumstances. This case provides three clear conclusions that must be noted by those involved in agricultural development (1) relationships between farmers are important for their livelihoods, (2) farmers are innovators, whose innovations are constrained by the parameters of the context within which they are actors and not by their ability to innovate, and (3) where extension and research services do exist, they should seriously consider strengthening farmers' networks and innovations.*

## 1 INTRODUCTION

Much of the current literature on agricultural development during the past decade, emphasises the need for development agents, including agricultural extension and research, to participate in meaningful ways with smallholder farmers in order to ensure natural resource management, sustainable production and agricultural growth (Scoones and Thompson, 1994; Reij and Waters-Bayer, 2001; Perret and Mercoiret, 2003; Pound *et al.*, 2003; CTA, 2004:). The reasoning behind this argument is that farmers have many of the solutions to their own problems (Reij and Waters-Bayer, 2001), or can at least make meaningful contributions to solving their problems by virtue of knowledge regarding their circumstances and local environment (Chambers *et al.*, 1989; Scoones and Thompson, 1994). The combination of farmers' knowledge and that of appropriately focused research and extension can be a formidable force in agricultural development as the two can complement one

<sup>1</sup> Senior Research Manager, HSRC, Private Bag X41, Pretoria, 0001. E-mail: thart@hsrc.ac.za

<sup>2</sup> Senior Entomologist, ARC Infruitec-Nietvoorbij, Private Bag X 5026, Stellenbosch, 7599. E-mail: burgessr@arc.agric.za,

another (Scoones and Thompson, 1994; Reij and Waters-Bayer, 2001; Perret and Mercoiret, 2003; CTA, 2004). This literature also illustrates that much of the success of smallholder farmers relies on their local networks with one another and their self-initiated innovations to improve and adapt their practices in light of changing circumstances within the contexts in which they function; often marginal and risk prone environments (Scoones and Thompson, 1994; Reij and Waters-Bayer, 2001).

Some successful projects have been carried out in sub-Saharan Africa, the success of which involved farmer innovations and linkages amongst farmers and between farmers and agricultural development agencies (including NGOs and official extension and research services). However, in many cases appropriate external support was lacking (Reij and Waters-Bayer, 2001) and farmers used whatever resources they could to compensate. Examples emphasising local innovations include the Indigenous Soil and Water Conservation and the Promoting Farmer Innovation projects in sub-Saharan Africa which encouraged groups of farmers to share and further develop their innovations by collaborating with development supporting agencies, usually in the form of NGOs (Reij and Waters-Bayer, 2001).

Other examples, which emphasise extension linkages with farmers, include the study of the successful implementation of the Farmer Field School approach in Zanzibar (Bruin and Meerman, 2001) and its growth as a participatory extension and research approach in East Africa (Matata *et al.*, 2001). Smallholder farmers in Africa tend to share information and inputs with other farmers, be they family members, neighbours or farmers from other regions. These linkages and resulting networks of exchange seem to be one of the reasons why they are able to survive under some of the harshest physical conditions. Experience suggests that linkages between farmers exist both in the absence and in the presence of official extension services, warranting further consideration of the significance and contribution of these networks to agricultural development. This article adds to the discussion on networks and linkages by considering the impact of the linkage between a smallholder producer and a large-scale commercial apple producer, in the absence of official extension services.

## 2 SMALLHOLDERS AND DECIDUOUS FRUIT EXPORTATION

Exporting deciduous fruit from the Western Cape Province of South Africa to markets in Europe, North America and Asia contributes significantly to the province's Gross Domestic Product. The main export producers are large-scale farmers. Even with the change in discriminatory legislation and practices in South Africa after 1994, few smallholder farmers have entered this market. This is due to:

- the historical political inequalities faced by the predominantly coloured and black smallholder farmers, in particular the lack of access to agricultural resources and inputs, because legislation used to exclude them from mainstream commercial farming;
- the subsequent inability of smallholders to produce the volumes and, at times, the quality required for export;
- the significant influence of economies of scale, making it almost impossible for smallholders to achieve a significant profit.

The few smallholders who manage to export their fruit do so through collective or individual arrangements with large-scale commercial operations.

One such farmer is Aubrey Billet, aged 78, from Haarlem. In the absence of agricultural extension and research services, but through his linkage with a large-scale producer he started exporting apples in the 1970s. During the ensuing decades, he developed his own knowledge and innovations in both fruit production and socio-economic arrangements and could thus continue to export most of his annual apple crop.

### **3 AGRICULTURAL CHANGES IN HAARLEM**

The hamlet of Haarlem lies in the narrow Langkloof Valley and developed around the mission station established by the Lutheran Church in the early 1800s. The nearly perfect climatic conditions, with cold winters and an altitude of 800m, have made this area well known for its export-quality apples and peaches. During the 1970s, numerous smallholder farmers exported their deciduous fruit in collaboration with neighbouring large-scale commercial farmers. The Lutheran Church helped the hamlet buy more land so that local farmers could expand their operations and produce even more for export.

However, the oil crisis in the late 1970s, the closure of the local railway station, politically motivated economic sanctions and the decline in value of the South African Rand relative to major foreign currencies led to the almost complete demise of deciduous fruit production by smallholders in Haarlem. By 1989, most had stopped growing apples for export. In the early 1990s, many uprooted the fruit trees and switched to arable cash crops. Agricultural production declined, but agriculture and associated employment remained important economic activities. Many residents were employed on surrounding large-scale farms and a few were employed on the smallholdings within Haarlem. Most smallholders now produce livestock and vegetables for household consumption, local sales and street vendors while a handful supply the fresh-produce markets in Port Elizabeth. A few still grow deciduous fruit for home and the local market. The remaining fruit trees are scattered and old. Aubrey Billet, however, still exports apples.

### **4 STRENGTHENING THE LINKAGE AND EARLY INNOVATIONS**

Like other Haarlem smallholders during the 1960s and 1970s, Aubrey used his small piece of land to grow various crops for home consumption and local sales. The smallholders' farming practices were severely constrained because they could not buy inputs in small quantities from the local cooperative, which was geared for large-scale production and supplied inputs only in large quantities. During the 1970s, a large-scale farmer approached Aubrey and other smallholders and an arrangement was reached whereby they would produce high-quality apples, which he would buy and then sell on national and foreign markets. These farmers started planting an increasing number of apple trees and the large-scale producer transferred the necessary technology and advice. Those who worked as labourers on large-scale farms employed local residents to maintain the small orchards. The smallholders

bought the small quantities of inputs they needed and could afford directly from the large-scale farmer. This enabled them to overcome the obstacles incurred by the unaffordable large volumes of inputs supplied by the co-op. Thus, they could enter the national and export apple markets.

Aubrey has a particularly keen interest in apple production, as does the large-scale farmer. Based on their mutual interest, these two men who differ greatly in socio-cultural background and economic status developed a strong friendship that continues today and extends to a friendship between Aubrey and the farmer's son, who now manages the large-scale commercial farm.

To sell to export markets, farmers must produce apple varieties that meet the high demands and preferences of consumers. As a result of changes in consumer preferences, farmers have to invest in new apple varieties every 10-12 years. Resource-poor farmers with little land and facing high input costs, cannot afford to do this.

Aubrey planted most of his existing apple trees, of the Starking variety, in the mid-1980s. When market demand for Starking apples decreased, he wanted to switch to Granny Smith, but could only afford to replace a few trees immediately. He therefore decided to experiment with grafting Granny Smith shoots (scions) onto the existing Starking trees.

He had learned about grafting while discussing apple production with his large-scale farmer friend. He taught himself and soon became adept in using this technique. Rather than spend money to buy scions from a nursery, he asked his friend if he could select potential scions from the shoots pruned annually in July from young trees on the large-scale farm. He stored the scions in the vegetable crisper of his refrigerator (where the temperature never went below 5° C) until September/October and then grafted them onto his Starking trees. From his discussions with his friend, he knew that nurseries stored their scions in a similar way before grafting, but used a special storage medium too costly for Aubrey.

After a few trials, Aubrey discovered that he needed to use young scions, not older than one year, and to locate a place on the tree that would take new growth, i.e. where a new branch or shoot was emerging. He also had to make sure that the cut made on the tree was an almost perfect match to the cut on the scion, so that the newly grafted scion would take easily. As Aubrey could not afford a grafting knife, he used a sharpened kitchen knife that produced clean razor-edged cuts, ensuring a good fit. He noted that, when he changed apple varieties by grafting onto existing trees, he could harvest suitable fruits two to three seasons after grafting. This was more cost effective for him than replacing the trees, which had to be bought from a nursery and from which he could harvest only four to five seasons after planting. However, he bought a few Granny Smith trees to replace some older Starking trees.

## 5 SCALING OUT

A few years after grafting Granny Smith onto the Starking trees, the market preference changed yet again. A new variety, Royal Gala, became popular amongst local and foreign consumers. Aubrey obtained some Royal Gala scions from his friend and grafted these onto Starking and some Granny Smith trees. He also grafted a few onto some Starking trees that were producing Granny Smith apples, resulting in one tree producing both varieties on the same rootstock. He found that he could harvest Royal Gala apples within two seasons after grafting. However, he encountered some problems with the trees on which he had grafted both Granny Smith and Royal Gala. Each variety reacts differently to pests and diseases and therefore needs a different spraying schedule. If early and late cultivars are grown on the same tree, timely spraying for one variety affects the quality and size of the other. This had serious financial implications. Thus, although he could successfully graft two varieties on one tree, his limited knowledge of pest and disease control led him to decide to use only one variety per tree. He therefore grafted Royal Gala only onto the remaining Starking trees.

## 6 WHEN TO GRAFT AND WHEN TO REPLACE TREES

Despite his success with grafting, Aubrey sees this as a short-term solution. He has noticed that a newly planted rootstock, with a pre-grafted scion, produces a better yield and fruit quality over a longer period in comparison to one of his "innovative trees". He suggests that these trees be replaced with new trees when the rootstocks are about 20 years old. According to his experience, the quality and quantity of the fruit start to deteriorate in later years. Most of the trees onto which he grafted a new variety were ten years old at the time. The grafting effectively gives each tree another ten years of productive life with a different variety currently in high demand from consumers. By saving his income, he could buy replacement trees when the production of the "innovative trees" started declining. His relationship with the large-scale farmer and his son enabled him to purchase new trees at minimal cost. When they ordered their new trees from the nurseries, over 500km away, they included Aubrey's order. They did not ask him to contribute towards the transport costs and he did not have the expense of ordering a small quantity only for himself. He does not graft onto the new replacement trees until their production drops or the market requirements change, as these are purchased with the market-required variety pre-grafted onto them.

## 7 LESSONS FOR EXTENSION AND RESEARCH

The relationship that developed between two farmers who came from quite different backgrounds and have different resources, but share a common interest in apple production has played a pivotal role in Aubrey's access to materials and ideas which he could integrate into his local knowledge and thus develop his innovations. It also gave him access to a relatively closed market. Unlike the other smallholder farmers he realised the potential of the linkage within the context of the 1970s and 1980s and developed it to the extent that it contributed to his household livelihood for over three decades, enabling him to formally educate his three children. He turned a



financial arrangement into a friendship that benefited him over the long-term. Such relationships and exchange of knowledge between farmers are important if they are to survive in a climate when research and extension services are being increasingly downsized. The success of this linkage is largely due to the fact that it was a mutual arrangement that was allowed to develop overtime; it was not prescribed from outside.

Only one other smallholder in Haarlem still grows apples for commercial purposes. Because he produces for the local market (consumers within Haarlem), his produce need not be of such high quality as is required for export. He does not practise grafting and relies on his old trees to produce what they can for the local market. Times have changed in Haarlem, and social reform in South Africa has made it possible for some smallholders to obtain loans and some government support. Also an extension officer now visits the community occasionally, as does a researcher from the Agricultural Research Council (ARC). This means that they are in a better position than Aubrey was in 1970 to purchase trees and get knowledge when required. These notable changes in the existing situation from the 1960s to the present emphasise the importance of context for a farmer with regard to how he /she goes about innovating, forming linkages and ultimately producing agricultural produce. The linkage in the 1960s enabled Aubrey and the other farmers to overcome a number of constraints, namely:

1. Access to input suppliers;
2. High input costs and the need to buy greater volumes than necessary;
3. Market access constraints such as distances and production of necessary volumes;
4. Access to crop information and market trends.

Often these are constraints that even today the extension services cannot resolve. This case stresses that linkages between farmers are important as they ensure their ability to produce, improve production, enter distant and broader markets, and ultimately, a farmer's success.

The overall impact of extension services can be improved if:

1. extensionists identify the linkages or networks that exist between farmers, amongst smallholder farmers and other agricultural actors;
2. extensionists and researchers realise that farmers are innovators whose innovations need support, rather than outright rejection and the persistence with transfer of technology practices which might not be adopted or even adapted.

This example also shows that farmer innovations are context bound and implies the use of various linkages will affect the ability of farmers to innovate and the successful contribution these innovations make towards agricultural production. By using simple, low cost and immediately available resources and technology, smallholders innovate to ensure the sustainability of their production.

## 8 CONCLUSION

By expanding his knowledge through his own experimentation, within a politically unfavourable environment and without the direct support of agricultural extension and research services, a smallholder farmer continued producing apples for markets that were virtually inaccessible to smallholders, while most of his fellow smallholders sought other alternatives to maintain their livelihoods. His innovation allowed him to secure his family's livelihood and educate his children for more than three decades. This case provides three clear conclusions that must be noted by those involved in agricultural development:

1. Farmers' linkages are vital for their success and survival; providing them with access to various inputs and markets that are typically unattainable.
2. Such linkages can also provide the necessary catalyst and opportunity for farmers to innovate, thereby maximising the potential of these linkages and subsequently optimising production within the constraints of their circumstances.
3. In light of this, effective agricultural extension and research requires officials and agents to not only work with farmers but to go beyond individuals and village groupings to look at the significance of broader linkages and the role these play in agricultural production and development. Where appropriate they should seriously consider strengthening farmers' networks and innovations, rather than ignoring or replacing these.

## REFERENCES

- BRUIN, G. C. A. & MEERMAN, F. 2001. *New Ways of Developing Agricultural Technologies: the Zanzibar experience with participatory Integrated Pest Management*. Wageningen: Wageningen University Research Centre / CTA.
- CHAMBERS, R., PACEY, A. & THRUPP, L. A. (Eds.) 1989. *Farmer First: Farmer innovation and agricultural research*. London: Intermediate Technology Publications.
- CTA. 2004. *Agricultural Training: Farmers in the front line*. SPORE, 113. Wageningen: Technical Centre for Agricultural and Rural Cooperation (CTA)
- MATATA, J. B., ANANDAJAYASEKERAM, P., KIRIRO, T. N., WANDERA, E. O. & DIXON, J. 2001. *Farming Systems Approach to Technology Development and Transfer: A Source Book*. Harare: Farm Level Applied Research Methods for East and Southern Africa (FARMESA).
- PERRET, S.R. & MERCOIRET, M-R. (Eds.) 2003. *Supporting small-scale farmers and rural organisations: Learning from experiences in West Africa*. Pretoria: Protea Book House, IFAS & CIRAD.
- POUND, B., SNAPP, S., MCDUGALL, C. & BRAUN, A. 2003. *Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation*. London: Earthscan Publications.

REIJ, C. & WATERS-BAYER, A. 2001. *Farmer Innovation in Africa: A Source of Inspiration for Agricultural Development*. London: Earthscan Publications.

SCOONES, I. & THOMPSON, J. (Eds.) 1994. *Beyond Farmer First: Rural peoples' knowledge, agricultural research and extension practice*. London: Intermediate Technology Publications.

*Across the divide: The impact of linkages in the absence of extension services*



Tim Hart, Senior Research Manager, HSRC, P Bag X41,  
Pretoria, 0001. e-mail: [thart@hsrc.ac.za](mailto:thart@hsrc.ac.za)  
Roberta Burgess, ARC Infruitec-Nietvoorbij, P Bag X5026,  
Stellenbosch, 7599. e-mail: [burgessr@arc.agric.za](mailto:burgessr@arc.agric.za)

# Introduction

Agricultural research and extension in Africa and other developing countries has emphasized the significance of:

- Meaningful participation between development agents and farmers
- Equitable integration of farmer's knowledge and appropriately focused research and extension
- Farmers' success which is largely hinged upon their networks with other farmers and their ability to adapt their practices in light of changing circumstances – farmer's own innovations



# **Introduction** *continued...*

- The paper focuses on the third point and discusses the impact of the linkage between a smallholder and a large-scale commercial apple producer in the absence of official extension and research services.



# Small holders and deciduous fruit farming

- Few small farmers have entered the deciduous fruit export market. This is due to:
  - Historical political inequalities faced by the coloured and black farmers as previous legislation excluded them from mainstream commercial farming
  - The inability of smallholders to produce the volumes and, at times, quality of produce required for export
  - The significant influence of economies of scale.



**The smallholders who do export their fruit  
do so through collective or individual  
arrangements with large-scale commercial  
operations.**





# Deciduous fruit farming in Haarlem

- Haarlem lies in the narrow Langkloof valley. It developed as a Lutheran mission station in the early 1800s.
- The Langkloof has ideal climate conditions for the production of deciduous fruit and is well known for its export quality apples.
- During the 1970s many smallholders from the village exported their produce in collaboration with neighbouring large-scale commercial producers.



# Deciduous fruit farming in Haarlem *continued*.....

- The oil crisis of the late 1970s, the closure of the railway station, politically motivated sanctions and the decline in the value of the Rand relative to foreign currencies led to almost the complete demise of smallholder deciduous fruit production in Haarlem.
- By early 1990s most had uprooted their trees and switched to arable cash crops and animal production.
- Agriculture and associated employment however remain an important economic activity.



# Deciduous fruit farming in Haarlem continued.....

- Most of the smallholders now produce vegetables for household consumption, local sales and street vendors while a handful supply the “informal” fresh produce market in and around Port Elizabeth.
- A few still grow deciduous fruit for home and the local market.
- One farmer, however, still exports apples.



# Deciduous fruit farming in Haarlem continued.....

Mr Aubrey Billet  
harvesting Royal  
Gala apples in  
March 2005





HSRC

# **Strengthening the early linkage and early innovations**

In the 1970s a white commercial farmer approached Aubrey and other smallholder apple producers in Haarlem and an arrangement was reached:

They would produce export quality apples of the market required variety, with his assistance (technical know-how, sales of necessary chemicals in amounts used by them, marketing) - he would buy the apples and sell it on the local and export markets.



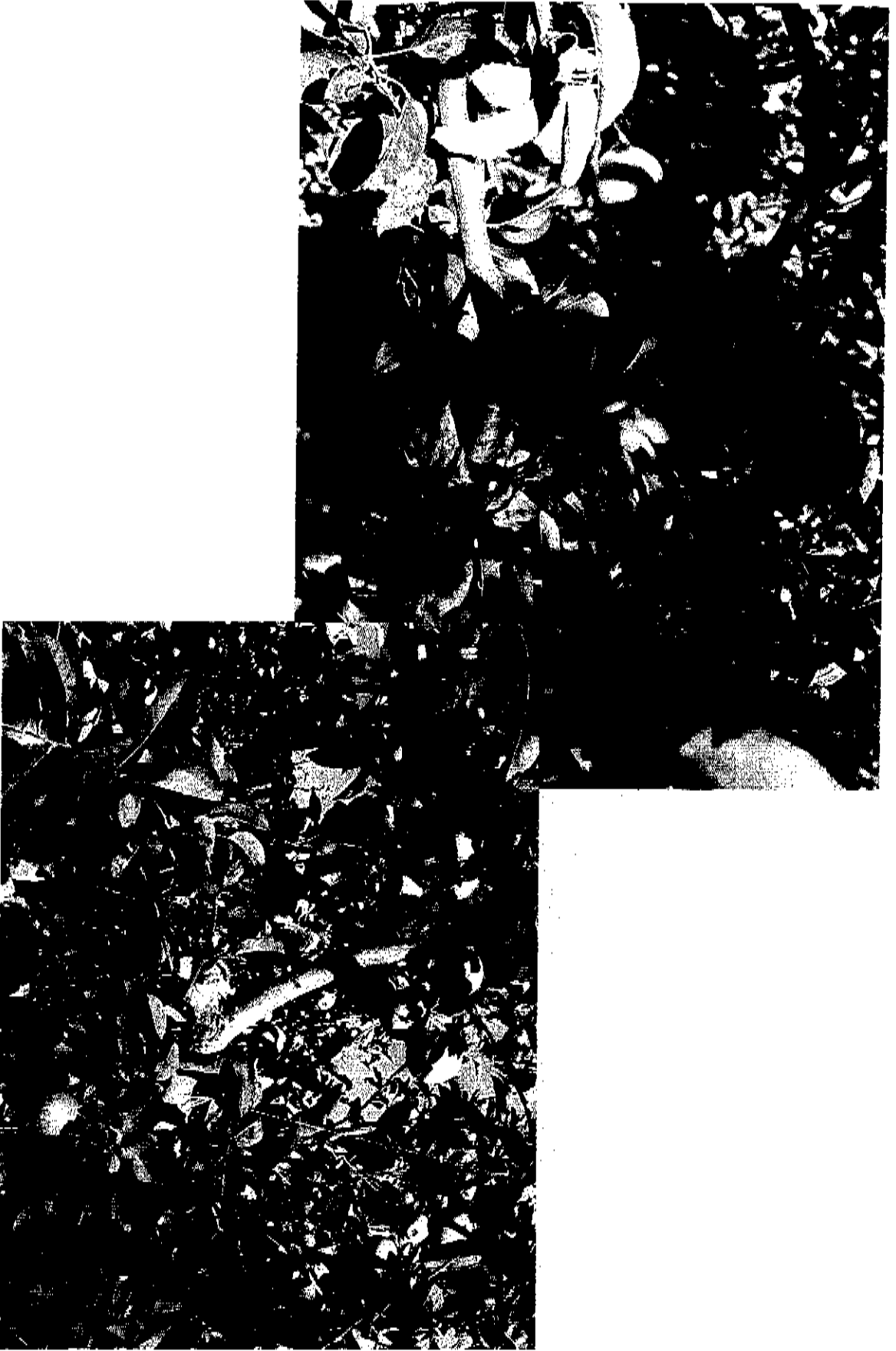
- In the late 1970s the export market moved away from the Starking variety and the emphasis was on the Granny Smith variety
- Many of the participating farmers decided to downsize their operations as they could not afford the costs involved in changing cultivars
- Aubrey continued to produce export apples

Aubrey decided to experiment with grafting (which he had learned) the new variety (Granny Smith) onto the existing wood. His friendship also allowed for him to select suitable material from the commercial farmer during pruning. He used the resources he had access to and it became an easy and cheap way in which he could replace his existing trees and still be able to harvest quality fruit within two to three seasons after the grafting.

A few years later the market preference changed yet again and Royal Gala became the flavour of the day. He ended up grafting Royal Gala on some of the branches that were producing Granny Smith resulting on both cultivars being produced on the same tree (originally Starking rootstock).









HSRC



HSRC

Initially the linkage enabled Aubrey and the other farmers to overcome constraints such as:

- Access to input suppliers
- High input costs and the need to buy greater volumes than necessary
- Market access constraints such as distance and production of necessary volumes
- Access to crop information, technology and market trends.



This case stresses that linkages between farmers are important as they ensure their ability to produce, improve production, enter distant markets, and ultimately, a farmer's success.



The overall impact of extension services can be improved if:

- extensionists identify the linkages or networks that exist between farmers, amongst smallholder farmers and other agricultural actors;
- extensionists and researchers realise that farmers are innovators whose innovations need support, rather than outright rejection of their practices and the undiscerning persistence with transfer of technology practices which might not be adopted or even adapted.



# Conclusion

Four points clearly need to be noted in conclusion, namely

- Farmer's linkages are vital for their success and survival
- Such linkages can also provide the catalyst and opportunity for farmers to innovate
- Effective agricultural research and extension requires officials and agents to not only work with farmers but to go beyond individuals and village groupings to look at the significance of broader linkages and the role they play in agricultural production and development
- They should also consider strengthening farmers' networks and innovations where appropriate rather than ignoring or replacing them, with undiscerning transfer of technology practices.

