SECTORS, CLUSTERS and REGIONS

The South African Fruit Processing Industry: Is the Climate Ripe?

Stephen Hanival

DEVELOPMENT POLICY RESEARCH UNIT
UNIVERSITY OF CAPE TOWN
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FOREWORD

The first phase of the Industrial Strategy Project commenced in 1992. The project has its origins in the Congress of South African Trade Union’s (COSATU) efforts to develop policy responses to the malaise afflicting South African manufacturing.

The first phase of the ESP submitted its final report in 1995. This comprised 11 sectoral studies, a number of cross-sectoral studies, and a synthesis volume that proposed an overall industrial strategy for South Africa.

The ESP is now in its second phase and comprises four research themes. One of these examines the relationship between industrial development and the environment, a second focuses on firm-level innovation, a third examines issues in human resource development, and the fourth is concerned with identifying mechanisms to strengthen manufacturing competitiveness at regional and local levels.

This paper is one of a series of five working papers that examine regional sectoral agglomerations drawing on the well-documented international experience of industrial districts. These studies, supplemented by additional research in this area, will be synthesised in an overall analysis of regional and local industrial strategies. While the first phase of the project was cognizant of these issues they have assumed particular pertinence in the context of the new constitutional dispensation. The studies are principally, although by no means exclusively, directed at provincial and local government and non-governmental structures attempting, with few resources and limited local experience, to promote industrial development in their areas of jurisdiction.

These are working papers intended to catalyse policy debate. They express the views of their respective authors and not necessarily of the Industrial Strategy Project.

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David Lewis - Director: Industrial Strategy Project
Robin Bloch - Research Co-ordinator: Sectors, Clusters and Regions
EXECUTIVE SUMMARY

The Western Cape and Eastern Cape are important farm areas in South Africa for the growing of deciduous and sub-tropical fruit respectively. In addition these growing areas are characterised by their close proximity to fruit processing factories. Such industrial agglomerations are required to process the fruit before it can be damaged through transit. But, the industrial agglomeration debate has been revitalised throughout the world recently, not because of mere agglomeration, but because of the synergy which this agglomeration tends to encourage.

In selected regions throughout the world, from Italy to Brazil to Kenya, some industrial agglomerations have risen to prominence through their economic power, job creation capacity, institutional strength and relatively positive labour relations. One of the factors leading to the development of these characteristics is the level of co-operation and institutional structures in the agglomeration area.

Two industrial agglomeration areas in the Western Cape and one in the Eastern Cape were selected and evaluated in terms of their level of co-operation and institutional provisions. On the basis of these investigations policy proposals are made in this paper.

In the two study areas in the Western Cape it was found that a thriving small and medium-sized enterprise (SME) sector producing a variety of jams, preserves and fruit juices existed. These enterprises do not comprise an homogenous group. Some are formal small companies that demonstrate real dynamism and are highly successful. Others are best described as 'micro' organisations and are teetering on the brink of closure. The problems they face relate to lack of marketing support, production information and the inability to source certain vital inputs. The successful SMEs suffer difficulties around export marketing and the capacity to fill large orders. The level of co-operation amongst all these organisations is invariably low, with the only exceptions being the two successful exporters in the sample.

The policy proposals suggested aim to address these weaknesses through the development of better information flows, export assistance, production advice and the identification of tourists as a potential market.

The study area in the Eastern Cape is dominated by three large canneries producing canned fruit products such as pineapple chunks and slices largely for export. This study area does not show the proliferation of SMEs that the Western Cape does.

In addition, as a result of increasingly difficult international trading conditions these firms are being forced to diversify into other products. Economies of scale in this processing industry are high and opportunities are being lost due to the inability of some farmers to maintain high production levels. This is further exacerbated by an apparent lack of skilled supervisory staff which would allow the canneries to run two or even three shifts as is the norm in the international industry.

A perception, not without some foundation, that the Eastern Cape is dangerous has resulted in declining tourist numbers. This was a significant source of income for the region as well as for some pineapple farmers who run guest-houses.

Policy proposals broadly include those proposed for the Western Cape but include assistance for canneries to develop the necessary capacity to run second or third
production shifts. More emphasis on product innovation aimed not only at the export market but also at tourist and domestic markets is suggested.
critics further argue that, far from being a new phenomenon, flexible specialisation merely involves the mass production of sophisticated products, rather than new work processes.

Further, Gordon suggests that the 'existence and character of local linkages remain largely presumptive'. Indeed it is extremely difficult to establish the importance of local cultural characteristics to innovation in industry. It is equally difficult to maintain the associated assumption that small firms are almost inherently innovative, particularly against the background of substantial innovation by large Japanese corporations and empirical evidence that most small firms tend not to be innovative.Industrial district theorists implicitly believe that all districts fit the same model of contemporary economic development, notwithstanding what Gordon terms 'effectively quite distinct forms of regional economic development' in Silicon Valley, Baden-Wurttemburg, Emilia-Romagna and elsewhere.

The empirical basis of the Third Italy industrial district has also been questioned by Murray. Murray argues that conditions in the industries characterised as Post-Fordist are far from the rosy picture most researchers depict. His concerns are based primarily on the establishment of causality between weak trade union organisation and poor working conditions. Murray thus argues that 'many workers are exposed to the unmediated market forces' which 'create wide differentials of wages and conditions'. This view is however contradicted by the vast majority of literature written about the region which was, according to Schmitz, found to be the area Italians would most like to live and work.

Murray's argument cannot be lightly dismissed, nor can it be adequately rebutted without extensive empirical work. However many industrial societies with and without strong trade unions are subject to the damaging excesses which unregulated labour markets encourage. Whether or not labour conditions are better or worse in industrial districts compared to other production areas is difficult to establish. However, the balance of empirical evidence tends to suggest that at the very least there is a sizeable group of artisans and small business entrepreneurs who are relatively insulated from highly exploitative labour relations. In addition, with a world economy which is experiencing its highest sustained level of unemployment since the Great Depression, perhaps any employment is positive. This is not to suggest that any form of employment should be welcomed uncritically. Clearly minimum standards should be upheld, but if this is at the cost of employment and production, a strong case can be made for government intervention to ameliorate the broader costs of production for industrialists in order to uphold some basic level of labour protection.

In addition to empirical criticism, the debate has also been described as both conceptually and empirically muddled. As

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15 Murray, F., 1987, Flexible Specialisation in the 'Third Italy'.

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1. INTRODUCTION

The previous government’s Regional Industrial Development Policy (RIDP) was premised on a logic of dispersion. This policy resulted in the relocation of labour-intensive industries to the homelands and other ‘deconcentration points’.

Notwithstanding these attempts at industrial dispersal, significant industrial agglomeration has occurred. The concentration of clothing and textile firms in the Western Cape, the metal working industry in the East Rand, and the motor industry in Port Elizabeth are cases in point. Here industrial agglomerations have developed and show signs of decline in the medium-term. It is this realisation, coupled with important new and/or revitalised theoretical positions, which see the debate come full circle back to policies which highlight the economies of scale and scope of industrial concentration.

The South African fruit processing industry is one such industrial agglomeration.

Three areas of concentration can be identified. They are the Montagu/Ashton and Paarl/Wellington areas in the Western Cape and the Bathurst/East London area in the Eastern Cape. These areas form the ‘heartland’ of South Africa’s fruit growing region and exhibit significant fruit processing capacity. These industries are however facing important challenges on the international market and this report will argue that in order for them to maintain their international position and to further capitalise on their comparative and competitive advantage policy interventions will be required.

It is to the theoretical positions underpinning recent agglomeration theory developments that this paper now turns in order to inform the design of the methodology. Thereafter the report highlights some of the main features of the domestic agriculture sector before presenting the research findings and analysis in each of the three districts. It is from this body of information that policy interventions and recommendations will be developed.
2. THEORETICAL ORIENTATION

The modern production unit, or firm, and the environment in which it operates bears little resemblance to that of 50 years ago and even less to that of 100 years ago. There have been worldwide changes in production technology, work organisation, materials management and pre-production planning. The Industrial Districts (ID) model embraces many of these changes and is presented in the following section. This section concludes with a discussion of the significance and applicability of this model to middle-income developed countries such as South Africa (SA).

2.1 The Industrial Districts Model:

2.1.1 Overview-Historical Development:

The ID approach has its historical roots in the work of the economist Alfred Marshall who attempted to explain localised cutlery and textile manufacture in Sheffield and Lancashire respectively, in 19th century Britain. Marshall claimed that small establishments could rival the economic efficiency of large mass-producers if they were 'specialised for the performance of a particular stage of the process of production in particular localities'.

The approach has been popularised recently, particularly in Europe, in an attempt to explain the apparent (export) successes of firms in parts of Italy and elsewhere in the face of increased globalised competition. While it is by no means the only approach, this model more than any other embraces and exploits the geographically concentrated nature of production in the 1980s and 1990s to support its analysis.

The most well-known industrial districts are in the North Central and North Eastern regions of Italy. These regions have been collectively termed the 'Third Italy'.

Following World War II, the Italian government closed large numbers of armament factories throughout Italy. This had a severe effect on the many giant corporations which supplied the armament industry and resulted in large-scale unemployment. In some towns employment declined by over 94% over a period of one year. In response to this crisis the Communist Party, which was in the majority in the region, encouraged the creation of small businesses and assisted previously salaried workers to become self-employed. A small quantity of funds from the Marshall Plan was made available, although only 0.75% of the total funds went to the Emilia-Romagna region. These regions have however seen phenomenal growth rates and rank as the highest income regions in Italy. In addition they have propelled Italy to the ranks of Europe's most prosperous nations, with high penetration of export markets and gross national product higher than that of Britain. However the 'Third Italy' is important for more than just its economic success.

Economic development in the region was accompanied by social development. Coinciding with the unemployment caused by

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2 McDonald, F., 1994, Industrial Districts-A viable contribution towards economic reconstruction in South Africa.

3 One of the most successful Italian industrial district areas.

the ending of the war, agricultural employment also declined substantially.

The long-term negative effects of this were ameliorated by significant interventions by local social networks, for example political parties and the Catholic church. These groups encouraged the mobility of a peasant/agricultural working class to become a small business entrepreneurial class. Furthermore, they provided not only support for small business but were responsible for a wide range of social support services such as public transport, child-care centres, and low-cost housing.

Thus McDonald argues that this environment provided the ideal 'democratic climate in which opportunities to enter small business were enhanced'. While researchers have acknowledged the importance of the Third Italy to the ID model, a number of other regions throughout the world, particularly in Western Europe, exhibit similar patterns of development. On this basis it has been possible to draw attention to their similarities and construct a 'stylised' model of what precisely industrial districts looks like.

2.1.2 Industrial Districts - 'stylised facts'

- Spatial and geographic concentration. Industrial districts tend to be localised in a limited geographical area. For example in the Sinos Valley, Brazil more than 1 800 firms involved in the footwear sector have been identified within an area with a radius of 50 km.

- Sectoral concentration and networks. An industrial district is not merely an agglomeration of firms. Present in a district are all the firms involved in producing a family of products. This includes firms producing inputs to the production process as well as firms which supply services to the industry. This network of upstream and downstream specialised, mainly small firms, subcontracts extensively. The result is a level of collective capability which far outweighs that which can be achieved by any single firm. Economies of scale and scope flow from this, leading to collective efficiency.

- Skilled human resources. Production runs are typically shorter than conventional mass production runs and the product is generally customised to its customers' broad specifications. This type of near 'craft' production requires human resources which are not only highly skilled and innovative but highly motivated. Fordist control would be unlikely to foster this type of skill base. Industrial relations have thus developed to the point where labour is regarded as crucial to the production process and the rigid divisions between manager and workforce that characterise Fordist production are largely moderated.

- Trust, socio-cultural identity and cooperation. The industrial district is imbued with a high level of trust and cooperation not only amongst workers and managers but more importantly amongst firms which are themselves competing, and also amongst supplier and end-user firms. The network is often characterised by high levels of non-price based competition. Competition tends to be based on innovation and non-price factors such as quality, delivery times and product differentiation. As a result employee wages are not seen as a component of production costs to be

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5 McDonald, F., 1994, Industrial Districts: A viable contribution towards economic reconstruction in South Africa.

reduced as far as possible. In fact employee remuneration and quality of living tend to be significantly higher than elsewhere. Furthermore, economic activity is strongly impacted upon by social and cultural dimensions. Thus Pyke argues that 'it is hard to say in many cases where the local community stops and industry begins'. It is this socialisation of work and industry which fosters and reinforces the high levels of trust and co-operation detailed earlier.

Entrepreneurial dynamism.
The industrial district is dominated by small firms with owner/managers rather than professional managers. Furthermore as the barriers to entry for new entrepreneurs are often low in terms of financial outlay and institutional support for all facets of business is available, large numbers of people are able to take this option if they so desire. In addition there is an element of the socio-historical with many entrepreneurs having continued familial businesses and exhibiting similar cultural characteristics to other entrepreneurs in the region.

Institutional service networks.
Of extreme importance is the institutional support framework which extends to all aspects of the production process. This support network may consist of both private and/or public sector organisations. The assistance they provide ranges from market information to administrative duties to technology acquisition functions. Active regional and municipal governments act in conjunction with employer associations and trade unions to strengthen the innovative capacity of local industry.

The ID approach also suggests that the presence of these factors have two main benefits: firstly, transport and transaction costs are reduced, and secondly, continuous communication between firms is fostered. This results in substantial synergy effects which secure a degree of collective efficiency far outweighing that which could be achieved by any individual isolated firm. The presence of an entire cluster of industries magnifies and accelerates the dynamic process of innovation and upgrading as groups of interconnected industries invest in specialised but related technologies, infrastructure and human resources.

2.1.3 Industrial Districts - Criticism

'Industrial Districts' have been criticised on a number of grounds. The ID model feeds into a wider debate which involves the apparent global shift from Fordist mass-production to flexible specialisation as the primary production paradigm. Thus one criticism of Fordism, and by implication flexible specialisation, is based on the empirical weakness of the Fordist paradigm. Sayer argues that the percentage of workers employed worldwide in Fordist production is no more than 5% of total employment, rendering it totally insignificant in terms of a general or wide-spread mode of production. In addition some of the assumptions associated with the influence of the Japanese experience on models of production are questioned. In particular, the flexibility of labour, existence of craft industries and product customisation are argued to be over-emphasised or overstated in importance in the model. These

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Ibid.

a result there are disputes over the
significance of industrial districts, their
characteristics and their sustainability.
However, in so far as the ID model
provides a relatively more equitable vehicle
for the administering of government policy
than does 'hard targeting', the model is
useful.  

2.1.4 The case of South Africa

Most of the literature written describing
the ID phenomenon has been based on
research conducted in developed countries.
Developing and middle-income countries
such as SA generally face significant
difficulties in terms of distance to major
markets, weak human resource
development and weak institutional service
providers. It remains to be seen whether
South African manufacturers will be able to
overcome these disadvantages and become
and/or remain major participants in various
global industry sectors.

In terms of the policy environment
important new approaches have been
undertaken by the government. The
Government of National Unity has rightly
identified the paucity and poor
performance of small and medium-sized
enterprises (SMEs) as a particularly
damaging weakness in the SA economy.
Throughout the world, SMEs are seen as
the key to economic regeneration, renewed
growth in output and a more satisfying
work experience. However their
position in the South African economy has
in the past been tenuous to say the least.
Past government policy has indirectly or
directly impeded their growth and many of
the supposed advantages which flow from
SMEs have been nullified by these policies.
In particular the high cost in recent years of
capital and a conservative banking sector
has resulted in SMEs not being able to
purchase technology which embodies the
more advanced microelectronics-based
machinery now at the leading-edge of
technology. The result is an SME sector
which shows little evidence of the highly
productive, innovative and flexible
production processes usually associated
with this sector in industrial districts. In an
attempt to remedy this situation the
government’s Department of Trade and
Industry (DTI), with significant assistance
from the Industrial Strategy Project (ISP),
has proposed a range of policies detailed in
the National Strategy for the Development
and Promotion of Small Business in South
Africa to bolster the competitive position
of these enterprises.

These policies include:
- Creating an enabling legal framework
  and streamlining regulatory conditions
to facilitate SME development;
- Assisting SMEs to access information,
  markets, technology and advice;
- Upgrading physical infrastructure in
  both urban and rural areas;
- Offering SMEs concessory finance
  and tax incentives; and
- Encouraging joint ventures and greater
collaboration between organisations of
  different sizes.

It is suggested here that the industrial
districts approach sits very comfortably
with the policies outlined above, as well as
the new government’s commitment to both
transparency and equity in all its dealings.
The Industrial District Model, emphasising

\[1^8\] Hard targeting refers to the identification of
specific industries for their strategic and/or
economic importance. These industries are usually
granted special concessions in order to encourage
their development.

\[1^9\] A more satisfying work experience is not always
characteristic of SMEs but is a defining feature of
industrial districts.

\[2^0\] Department of Trade and Industry, 1995,
National Strategy for the Development and
Promotion of Small Business in South Africa.
the support of whole filières of mostly smaller enterprises, certainly reduces the possibility of rent-seeking by individual ‘powerful firms which has characterised past industrial policy-making’ in South Africa.  

Furthermore by applying government funds to institutional support rather than direct support, the government reduces the potential political fall-out which could follow the collapse of a (financially) supported firm, and ensures that a larger number and range of businesses benefit from government support.

Finally, it would appear that at least some of the assumptions embodied in the approach are both conceptually and empirically supportable. There can be little argument with the notion that transaction costs are reduced by agglomeration and that communication flows are facilitated by spatial concentration. By taking only these factors as given, the research has been undertaken with as open-minded and conceptually unencumbered an approach as possible.

Section three thus describes the domestic agriculture industry. This is followed by a more detailed description of the scope and dynamics of firm level co-operation exhibited by the filière of fruit processing industries in the three fruit growing areas.

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3. SOUTH AFRICAN AGRICULTURE

The South African agriculture sector in the early 1990s has been characterised by large changes in its level of output and profitability partly as a result of widespread drought and stagnant productivity. Thus in 1992 production fell by 27.2% only to increase by 21.3% the following year.\(^{22}\) Notwithstanding this, the sector remains vital to the national economy with direct employment of over 1.1 million in 1992 and a contribution of R15.7 billion or 4.6% to national GDP in 1993.\(^{23}\) Although the sector’s exports are smaller than that of the manufacturing sector, its trade balance is significantly positive and on an upward trend while that of manufacturing is strongly negative and on a steeply declining trend (see Figure 1).\(^{21}\)

In addition, the phasing-out of the General Export Incentive Scheme (GEIS) is likely to impact more severely on the manufacturing sector than on agriculture as GEIS benefits mostly manufactured exports such as auto components, while many agricultural sector exports are well-established on the world market (notwithstanding the sanctions era) in terms of both consumer awareness or marketing, and export infrastructure such as shipping agents and distribution channels. The main components of agriculture in terms of gross value of production are:

- Field crops (35.5%);
- Animal products (42.9%);
- Horticulture products (21.6%).

While field crops are clearly an important sector, the horticulture industry is by far the most significant in terms of exports and accounts for 62.6% of agricultural foreign exchange. Horticulture comprises: viticulture, fruit, vegetables and other.\(^{21}\)

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\(^{23}\) This figure includes small contributions from the fishing and forestry industries.


\(^{21}\) ‘Other’ includes flower, compost and firewood production.
Figure 2 shows the relative importance of the fruit industry in terms of Gross Farming Income. This sector directly employed over 500,000 people and produced 4.1 million tons of fruit in 1992. As can be seen from Figure 3, the fruit farmer has a number of outlets for his/her produce.

Fresh fruit exports accounted for almost 90% of all horticultural exports and were worth approximately R2 billion in 1992. Fresh fruit on the export market earns a premium and it is therefore no surprise that most farmers attempt to maximise their level of exportable fresh-fruit production.

Deciduous and citrus fruits dominate South Africa's fresh fruit exports accounting for 60% and 29% respectively of fresh fruit export earnings in 1992. The European Union (EU) is by far the largest destination for deciduous fresh fruit. In 1992 over 80% of all deciduous fresh fruit exports were supplied to the EU. Germany and the UK are traditionally important destinations for South African fresh fruit.

However, inevitably a proportion of the fruit crop is unsuitable for marketing in a fresh form. These fruits are either dried, canned or juiced. In the case of subtropical fruit the skin which is discarded during the peeling process prior to canning is also used to produce juice. These industries also add significantly to the fruit industries export earnings. The deciduous and pineapple processing industries jointly exported canned or juice products worth R600 million in the 1992/93 season.

It is at this, the processing end of the filière, where the greatest potential for innovation and value-added exports exists. It is therefore to these industries that the report now turns.

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12 THE SOUTH AFRICAN FRUIT PROCESSING INDUSTRY
4. Horticulture in the Western Cape Province

The agriculture industry is an important component of the economy of the Western Cape (WC). This sector provides 38% of the formal employment opportunities in the rural areas and 27% of the economically active population in the whole of the WC are thus involved in agriculture. It is estimated that agriculture provides a livelihood to between 1.8 to 2.0 million people in the WC. In addition, agricultural employment in the province grew at rates of eight to nine times the national average for the period 1980-1991/2. The gross value of agricultural production in the WC was approximately R4 683 million in 1992.

Table 1: Components of Agricultural Production in the Western Cape.27

<table>
<thead>
<tr>
<th>Agricultural Product</th>
<th>Rand millions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry and Beef</td>
<td>964</td>
<td>21%</td>
</tr>
<tr>
<td>Dairy</td>
<td>210</td>
<td>4%</td>
</tr>
<tr>
<td>Mutton and Pork</td>
<td>170</td>
<td>4%</td>
</tr>
<tr>
<td>Wool and Ostriches</td>
<td>174</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Livestock</strong></td>
<td><strong>1 518</strong></td>
<td><strong>32%</strong></td>
</tr>
<tr>
<td>Deciduous fruit</td>
<td>1273</td>
<td>27%</td>
</tr>
<tr>
<td>Citrus fruit</td>
<td>75</td>
<td>2%</td>
</tr>
<tr>
<td>Wine-grapes</td>
<td>700</td>
<td>15%</td>
</tr>
<tr>
<td>Vegetables</td>
<td>480</td>
<td>10%</td>
</tr>
<tr>
<td>Processed fruit</td>
<td>187</td>
<td>4%</td>
</tr>
<tr>
<td>Flowers</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td><strong>Horticulture</strong></td>
<td><strong>2 125</strong></td>
<td><strong>50%</strong></td>
</tr>
<tr>
<td>Wheat, Barley and Tobacco</td>
<td>421</td>
<td>10%</td>
</tr>
<tr>
<td>Lucerne seed and Rooibos tea</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td><strong>Field crops</strong></td>
<td><strong>440</strong></td>
<td><strong>10%</strong></td>
</tr>
</tbody>
</table>

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27 Wentzel, W., 1993, *Horticulture in the Western Cape.*

28 Ibid. These figures have been subject to scrutiny and should be treated with some reservation.

29 Data comparisons should be treated with care as some sectors of national agriculture declined alarmingly over this period.
Horticulture is the most important component of agriculture (see Table 1). Furthermore, the production of a number of high value, export-intensive agricultural products is concentrated in the WC (see Table 2).

Whilst the deciduous fruit industry occupies no more than 1% of agricultural land, it accounts for about one quarter of the value of agricultural output in the Western Cape.\textsuperscript{31} This industry employs approximately 230 000 in farming and processing and had international export earnings of R1 887 million in 1990.\textsuperscript{32} Direct employment in pulp, puree and juice-concentrate processing plants amounts to some 9 200 factory workers.\textsuperscript{33}

<table>
<thead>
<tr>
<th>Agricultural Product</th>
<th>Western Cape production as a % of national production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deciduous fruit</td>
<td>94%</td>
</tr>
<tr>
<td>Wine grapes</td>
<td>94%</td>
</tr>
<tr>
<td>Canned deciduous fruit</td>
<td>100%</td>
</tr>
<tr>
<td>Hops</td>
<td>100%</td>
</tr>
<tr>
<td>Barley</td>
<td>98%</td>
</tr>
<tr>
<td>Oriental tobacco</td>
<td>100%</td>
</tr>
<tr>
<td>Lucerne seed</td>
<td>100%</td>
</tr>
<tr>
<td>Rooibos tea</td>
<td>100%</td>
</tr>
<tr>
<td>Wheat</td>
<td>68%</td>
</tr>
</tbody>
</table>

\textsuperscript{30} Eckert, J., 1994, \textit{The Western Cape Economy}  

\textsuperscript{31} De Klerk, M., 1992, \textit{Prospects for Commercial Agriculture in the Western Cape}. The deciduous fruit industry also accounts for the single largest contribution to value of agricultural output.  

\textsuperscript{32} Ibid.  

\textsuperscript{33} Wesgro, 1992, \textit{South Africa's Leading Edge?}
5. INDUSTRY OVERVIEW—DECIDUOUS FRUIT PROCESSING

5.1 Industry participants

The fruit processing industry is relatively regulated.\(^{32}\) At the fruit canning end of the pipeline all organisations dealing in canning fruit are required to be registered with the Canning Fruit Board (CFB).\(^{35}\) With regard to fruit preserves all producers must similarly be registered with the South African Dried Fruit Co-operative Ltd. (SAD). Juice producers are not required to be registered with any board in terms of the production of juice, but as they are dependent on canning fruit for their raw material inputs they have to be registered in terms of the purchase of canning grade fruit.

5.1.1 Fruit Canning Industry

This industry has two main vertical components: producers or farmers and processing companies. Both components are required to be registered with the CFB. In the 1993/94 season 1 102 farmers were registered as delivering more than three tons of canning grade deciduous fruit. During the same period 10 processors were registered with the CFB, although there were 11 in the previous season and 15 twenty years ago.

\(^{32}\) The fresh fruit export industry is similarly regulated with Unifruitra administering a single channel pool scheme on behalf of the Deciduous Fruit Board for the export of all deciduous fruits. The domestic fresh fruit industry is subject to the full force of the free market.

\(^{35}\) Canning fruit refers to fruit used in the canning process. It may be low quality fruit of the same cultivar used for fresh fruit production but could also be lower quality cultivars better suited to unfavourable soil and/or other climatic conditions.

A dramatic increase in production levels of both farmers and canneries in Greece and Chile has been the main cause of the decline in the number of canneries in South Africa.

The CFB is a statutory, supervisory board reporting to the Minister of Agriculture. In keeping with the functions of other Agricultural Boards in South Africa, the CFB is responsible for the 'orderly marketing of canned fruit' and 'regulates the export of canned fruit' through the setting of minimum prices and the application of levies on canning grade fruit and canned fruit. These levies fund the administration of the CFB, research into cultivar improvement, general purpose research/extension services and local sales promotion. In addition the board has the following functions:

- Keeping relevant statistics;
- Financially supporting research;
- Accumulating and distributing marketing information;
- Acting as lobbying agent for the industry;
- Striving to maintain the industry's international competitiveness;
- Promoting growth, job creation and stability in the industry; and
- Supporting structures and systems that will encourage the development of small scale farm opportunities.

The industry has been in decline for a number of years and the CFB itself has not escaped the rationalisation which has taken place amongst both producers and canners. From employing 16 people in 1992/93 it has reduced its staff complement to a mere six. Some departments have been harder hit than others, with the Marketing Committee in particular declining in prominence (80% less funding in 1993/1994). The impact of the decline in the Marketing Committee's budget should not be over-estimated as most of the large...
canning companies have their own marketing divisions with agents in most major cities in Europe. In addition the tight trading conditions forced the board to lift all levies on both canning and canned fruit in 1993/94.

The ten processing companies registered with the board are involved in any one or more of the following activities:

- Fruit canning;
- Pulp production;
- Puree production;
- Sauce production;
- Juice or juice concentrate production;
- Baby food production

These companies, in the 1992/93 season, canned 235,000 tons of fruit and exported products worth approximately R475 million (or almost 90% of their total production). Linkages to other industries include the sugar, tin, carton and labelling industries (worth in total almost R185 million in 1993).

Most of the remaining six canners are relatively small producers and tend to operate in niche markets, e.g. Coleman Foods produce a variety of baby foods.

According to the US Department of Agriculture, South Africa is the most efficient producer of canned fruit in the world. In 1991 it cost South African producers $110 to produce a basic carton of canned fruit, Greece and Chile $113.50, and the other producing countries more than $13.6. Attributed to the same source is the notion that South Africa produces the best quality peaches in the world.

Notwithstanding the above, the local canning industry has seen a decline in profits over the last three years. This is said to be as a result of over-production on the world market which has led to a decline in the price of a basic carton to levels lower than in the mid-1980s. The CFB is not overly concerned with over-production as they believe it occurs periodically as strong demand and thus high prices encourage new entrants which in turn pushes up the price of the canning fruit input.

By the very nature of the fruit industry, with long lead times required before trees produce fruit in optimal quantities, the world market tends to be characterised by boom-bust cycles as new production eventually comes on stream and floods the market.

Industry sources are however quite positive about the prospects for the

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44 In Switzerland from which is white on the inside is very popular and Langeberg first produced short runs of canned peaches which have been sorted and found to be white on the inside.

45 It takes approximately 15 years for a fruit farm to break even.
industry in the short to medium term (two to three years).

The canning industry faces tariffs of some 24% when its products enter the EU market. In addition, fruit and vegetable canned products have been expressly excluded from the EU’s Generalised System of Preferences (GSP), which is South Africa’s major competitor and the tariff, combined with the large subsidies offered to Greek farmers, makes South African products less price competitive than would otherwise be expected. This assistance includes soft loans and debt write-offs, as well as production aid to fresh fruit production. This necessarily impacts on the price its canning companies pay for canning fruit and thus their profit margins.

GIEF is of great importance to the industry with all canners adamant that without its benefits they will be unable to survive. These canners enjoy Category IV status and GIEF to the industry in 1993 was approximately R75-80 million. They are particularly concerned that GIEF is being phased out faster than required in terms of GATT, although they also do

realise that GATT could similarly raise the level of state-assistance enjoyed by competing manufacturers of canned fruit and vegetables in Mediterranean countries. In 1993, GIEF was taxable only in Italy, but Langeberg was particularly hard hit with an annual variation from R3.1 million in 1993/94 to R15.5 million in 1994/95.

According to the CFB, the few remaining processing companies are the only ones operating in the industry. However, we will see in both of the WC case-studies there are a number of informal traders operating in this industry. While the formal canning industry employs fewer than the informal, the former also exports relatively small quantities without great potential for the increases in production or reductions in costs that could lead to increased volumes. The informal sector, as illustrated particularly in Montagu, has great potential to exploit the high value-added, differentiated end of the market.

4.1.3 Fruit Preserving Industry

At the preserving segment of the sales pipeline, the South African Dried Fruits Board (SADF) is responsible for processed fruit products. It is vested with the sole marketing rights for all preserved fruits in South Africa. Its activities mirror those of the CFB.

The SADF is the main player in the fruit preserving industry. It purchases dried fruit from farmers who are responsible for drying the fruit. The SADF then grades the fruit and conducts tests to ensure the sulphur levels in the fruit are adequate if
necessary they increase the level of sulphur. The fruit is then packed and sold to the retail market, or is minced to make a variety of sweet based products, sold to bakeries in large volumes, or cut into cubes for use in chutney.

Apart from the SAD, only one other preserving company was found in the two study areas. It was considerably smaller and was involved in higher value added activities than SAD.

This company was packing gift baskets of dried fruit for up-market retailers such as Woolworths. They had experienced some difficulty in setting-up their operation, not only from SAD but also from the Wellington municipality.

Having first outlined the general characteristics of the fruit processing industry, the report will now deal specifically with the research findings in the various study areas.
6. THE STUDY AREAS - MONTAGU/ASHTON

6.1 Introduction

The Breede River region consists of the magisterial districts of Robertson, Montagu and Swellendam situated some 150km from metropolitan Cape Town. The study area produces a large proportion of the total national apricot, peach and pear crop (see Table 3).

6.2 Industry overview

The Montagu/Ashton area is dominated by the two large-scaled canning factories of Langeberg and Ashton Canning Company, both of which are situated in Ashton. Both these companies produce large volumes of largely homogenous fruit pieces and jams which are sold in conventional three-part tins. Production runs are generally long. Langeberg is the market leader with market share of approximately 60%.

Langeberg has a number of plants situated throughout the country but the plants in Paarl and Ashton are the most important for the fruit division. Both plants are capital-intensive with Langeberg employing some 700 full-time workers in its Paarl plant.

<table>
<thead>
<tr>
<th>TABLE 3: Intake of deciduous fruit by magisterial district as % of national production.</th>
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<tr>
<td>Montagu</td>
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<td>Robertson</td>
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Langsberg and Ashton Canning Company have both been forced to undergo rationalisation programs as a result of declining returns from their fruit divisions. The ‘formal’ canning industry is mature and relatively static. However in this study area a small ‘informal’ canning industry was found to exist. These ‘informal’ canners appear to have the potential to exploit the high value added, differentiated end of the fruit canning market.

The ‘informal’ industry may be categorised as follows:

- Recreational processors,
- Micro processors,
- Small processors

6.2.1 Recreational Processors

This group comprises mainly farmer’s wives who make jams and preserves, predominantly, for their own use and, to a lesser extent, for ‘barter’ with neighbours and to sell to the small amounts of tourists who, sometimes uninvited visit their farms. The jam is produced on their own domestic equipment and is stored in glass jars which are generally acquired from neighbours and friends. This group produces without any profit motive as an incentive and they profess to do so because ‘it’s a way of life, I’ve always made jam and I enjoy doing it’.

6.2.2 Micro Processors

This group consists of processors who supply the farm-stalls in the area which serve the passing tourist trade. These processors operate from their kitchens. They also use domestic equipment and...
have purchased minimal amounts of equipment specifically to produce jams/preserves. They purchase the canning fruit from local farmers with whom they have close personal and familial ties. The remaining raw materials such as sugar and glass jars, are purchased from the local supermarket and are thus charged at retail price.

The standard of packaging and marketing of the products produced by these organizations is very low. Usually the jar is ‘decorated’ with nothing more than a plain glue label with at most the name of the person who made the jam, his/her telephone number and the type of preserve. This does not encourage tourists (local or foreign) to purchase large quantities of the product as the mediocre and uninspiring appearance of the product makes it unsuitable as a gift.

6.2.3 Small Processors

A company was found in Montagu/Ashton (Jamco) which was producing “fully handmade, traditional, no preservatives added” jams and preserves. The company employs 18 people and produces approximately 60 different types of jams/preserves using a completely un-mechanized production process. The majority of the company’s present workforce were previously employed at Ashton Canning Company and bring a significant understanding of the standard production process to Jamco.

Extreme care is taken throughout the production process to ensure a product of superior quality and presentation. The company even goes so far as to hand fill the glass jars so that, for example, the slices of orange in their marmalade can be placed around the inside wall of the jar creating an aesthetically pleasing effect.

Jamco had been approached by overseas buyers and three export orders had been placed. This company has a deep commitment to quality and was in fact intending to fill only one of the export orders as they feared they would not be able to maintain their standard of meticulous attention to detail when required to fill very large orders for only one or two individual product lines. The magnitude of these orders were in the range of a standard freight container per product line.

The company sells its produce almost exclusively in glass receptacles and has experienced difficulties in ensuring a consistent supply of glass jars from Coorol (which has a monopoly in the supply of glass products). The company believes that the most lucrative sector of the industry has been blighted due to the unavailability of very small glass jars. These high quality, high price end of the market supplies gift sets of small 50g pots of various marmalades and jams. These are extremely popular in Europe and have recently gained in popularity in local up-market retailers, e.g. Woolworths and Shuttlesford.

There are also large potential markets in Europe where the local delicatessens would be more likely to stock these high quality products than the mass produced ones produced by the Langeberg-type factories.
Development Policy Research Unit

Due to the relatively small quantities of fruit purchased and close personal ties with local farmers, the company gets preferential treatment with regard to the supply of fruit, i.e. the fruit is picked early in the morning and used almost immediately (a crude but effective form of just-in-time). In addition the CFBs minimum price does not apply to Jamco1 and they are also able to purchase lower quality fruit as the sorting is done manually which allows damaged parts of the fruit to be cut-off and discarded. This lowers their cost structures significantly. The companies were unable to quantify this and this is indicative of the low level of production monitoring occurring (excluding product quality).
7. STUDY AREA -
PAARL/WELLINGTON

7.1 Introduction

Paarl/Wellington is situated some 40km from metropolitan Cape Town. This area produces a significant proportion of the WC total horticulture crop although it is better known for its viticulture and vine-stocks.

7.2 Industry overview

Langeberg has a fruit canning plant in Paarl which is similar to its plant in Montagu and produces standard jams and other canned products. This plant is reasonably modern and is presently undergoing a complete restructuring which will include new machinery, work organisation and quality control.

The ‘informal’ canning industry in Paarl/Wellington consists of 10 micro processors and one small processor. The micro processors had all received limited funding from the Small Business Development Corporation (SBDC) and were involved in activities ranging from the production of jams and pickles to churning cheese and butter.

7.2.1 Micro processors

The micro processors in Paarl/Wellington supply local farmstalls. Being closer to Cape Town does however have certain benefits, and industry sources believe that at least five processors sell some proportion of their produce to small shops and farmstalls in Cape Town. In a small number of cases marmalades are also sold to restaurants in Cape Town. These processors tend to employ very few people other than the owner/entrepreneur. Only

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two of the ten processors employ female domestic workers who, aside from doing general household duties, also assist in the kitchen. These processors purchase their raw materials from wholesalers in Cape Town and receive small discounts. Canning fruit is purchased on an informal basis from local farmers. The packaging of the product is unsophisticated although of a slightly higher standard than that found in Montagu/Ashton.

7.2.2 Small Processors

A processor (Jamco2) employing approximately 25 people was found to be operating in the Paarl/Wellington district. Jamco2 has capital investments, excluding buildings, of approximately R200 000 and has successfully tried to increase its turnover by 100% each year for the last four years, reaching R3 million per annum in 1995.

The company produces a range of approximately 40 different types of jams and preserves using fruit sourced from local farmers. As a result of problems with the supply of glass receptacles, the company has reduced its range of product sizes to three. Like Jamco1 the company felt that Consol Glass was not able to supply quality products at a competitive price or even make timely deliveries.

Jamco2 had been approached by a number of export agents, but felt that if they did export they wanted to do so through an agency which specialised in fruit or food products. The company believes that general product export agents are unable to offer the specialised services, e.g. product information to importers and that their good name would suffer as a result. Jamco2 approached the South African Foreign Trade Office (Safto) for advice on exporting but found them unable to assist. The export agents Safto recommended were all agents responsible for a range of

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*42 Personal communication, SBDC regional director in Paarl.*
diverse products. Jamco2 felt that they would be a minor customer for these agents and would not receive the specialised information which would enable them to remain competitive on the international market. The company is actively looking for an export agent who fits their needs, but until now, without success.

Jamco2 has mechanised part of its production process. It uses a semi-automatic peeling machine and cooks the jams in large suspended copper vats. This allows it to produce consistently high quality products. The company has also identified a manufacturer of food processing equipment in Cape Town who could produce a blending machine for them. This would enable Jamco2 to produce a wider variety of products in more consistent fashion. However, the machinery is expensive and would require significant capital investment from Jamco2. Interestingly, a major food processing machinery manufacturer was found to be operating in Paarl. This company exports new and refurbished food processing equipment to the EU. It did not appear to have attempted to supply Jamco2 with equipment. Jamco2 was of the opinion that their products were too expensive.

Jamco2's main customer was Woolworths. Woolworths tends to purchase products which are new and different or which are of an exceptional standard of quality. The company will usually only evaluate a food product if it is substantially different to what it already stocks or what its competitors stock. Jamco2 found this retailer's quest for high quality products and presentation a spur to the development of its own products.

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17 Personal communication, Woolworths regional food division manager.
8. STUDY AREA - BATHURST/EAST LONDON

8.1 Introduction

East London is one of the country's major export harbours and is situated in the Eastern Cape (EC). It is better known for its historical significance to the auto industry although it is also home to all three of South Africa's pineapple processing plants. Bathurst is situated 60km from East London and most of the pineapples grown for processing are farmed in this district.

8.2 Industry overview

South Africa's pineapple industry is concentrated in the Eastern Cape Province. Much like the other major canning industries throughout the world, the industry developed rapidly during and, especially, after World War II by which time preserving and canning technology was relatively advanced in comparison to the period before World War I. In the 1980s and early 1990s, competition in the world market increased dramatically with the entry of large numbers of Thai, Philippine and Indonesian canners. This entry of these canners coincided with the departure of SA canner from the world market as a result of the economic sanctions imposed on SA by various world bodies. As a result the domestic industry experienced a steep decline in profitability and a number of canneries were forced to close. The remaining local canneries have found it difficult to win back market share from the efficient East Asian canneries.

canners who are regulated by the Pineapple Canning Association. These two associations are also represented on the Pineapple Association which is responsible for the regulation of the industry as a whole and is charged with periodically making representations to the various levels of government to ensure the best interests of the pineapple industry are served.

• Pineapple Growers

There are 53 pineapple farmers in the region at present. The farms are predominantly concentrated around the Bathurst district some 40km from East London. A considerable hectarage of suitable pineapple farming land is available closer to East London but this land was nationalised by the Transkei government in the 1980s and is presently managed by two parastatal organisations. Industry sources believe that the land is at present not being efficiently farmed.

In addition to these 53 farmers there are two large parastatal organisations in the former Transkei and Ciskei homelands involved in pineapple production. These farmers have approximately 11 200 hectares devoted to pineapple production out of a total farm size of 69 700 hectares. This implies that a mere 16% of total farm land is used for pineapple production. While the total hectarage includes land unsuitable for pineapple, fallow land, and land required for contouring, this does imply that farmers are able and have diversified into other crops or activities such as bird-seed, chicory and beef or dairy farming.

The racial profile of pineapple growers is similar to that of any branch of agriculture in South Africa with an overwhelming number of white growers and skilled farm managers. Many of these growers have inherited land which has been in their
family for generations and it appears that in very few cases has farming land been purchased outright by newcomers at the market value. If indeed this is an accurate reflection of the situation, then a number of questions arise surrounding the potential profitability of pineapple farms which are purchased at market-related prices in order to further the Government of National Unity’s redistribution of land proposals.

The growers employ some 3 475 labourers.\textsuperscript{24} Average cash payment to labourers is approximately R260 per month. This excludes payment in kind and contributions by the farmer to medical expenses and pension funds. In addition, apart from extremely limited access to the Basic Conditions of Employment Act, many of these workers are employed on a casual basis with the farmer able to reduce his labour intake relatively easily and at limited expense to the farm.

- Pineapple Canners

At present there are three canning factories operating in the area, compared to six in the 1970s. These canners process approximately 160 000 tons of fruit of which 85% to 90% is exported in various processed forms. These canneries have experienced severe losses over the last few years and two canners were sold off by multinationals in the late 1980s and early 1990s. Sunny South canny was purchased by a consortium of growers who had in the past supplied the factory with its raw input while the second canny now has its workers holding a 40% shareholding in the company. This canny is also vertically integrated with the two parasatal growing organisations Ulumoor and Neera Agricultural Development Company.

All three canneries have seen significant restructuring in recent years with retrenchments varying from 20% to 50%. At present the canners employ some 1 200 people with by far the majority of these workers employed on production lines responsible for sorting and selecting the various pineapple products, e.g. rings, chunks etc. Although data on average wages and salaries are not readily available, data sources indicate that in 1993 black workers earned an average of R993 per month in the Canning and Preserving industry (ISIC 3113). By comparison, white workers, presumably managerial or skilled staff, earned R5 436 per month.\textsuperscript{45} Employment in the industry is generally heavily skewed towards unskilled or at best semi-skilled jobs.

The industry produces four main products:
- Pineapple Slices;
- Pineapple Pieces;
- Pineapple Crush; and
- Pineapple Juice.

Pineapple slices are by far the most profitable product but inevitably some portion of the pineapple is unsuitable for reasons of size or quality and these are then used for the production of pieces or chunks. Further down the quality chain crush or juice is produced with even the pineapple skins being used in juice production. The waste peel which remains is often given to farmers in the area who use this as a supplementary cattle feed during times of drought.

The pineapple industry in SA has been in decline for a number of years. With the advent of trade sanctions in the early 1980s South African pineapple products, unlike fresh deciduous fruit, all but disappeared from the international market. Canada and the US, both important markets for SA

\textsuperscript{24} Agri-Africa, 1993, \textit{Study into the World Production and Marketing of Pineapples}.

\textsuperscript{45} IDC, 1993, \textit{Sectoral Data Series - Manufacturing}.
producers, were entirely off limits to SA pines or pineapple products. In addition, a number of Asian countries have since entered the international pineapple market and through low cost, efficient production have captured significant shares of markets which SA producers previously dominated. In particular, China, Thailand, Indonesia, Malaysia and the Philippines have consistently increased their level of pineapple production from the early 1980s to the early 1990s. These countries all have ideal pineapple growing climatic conditions, and as a result the growing time for a pineapple to reach maturity is a third of that required in South Africa. Locally it takes approximately 18 months for a pineapple to reach maturity and ripen, while in most Asian countries this occurs in six months. In addition, soil conditions and the humid environment give Asian pines a bright yellow hue as well as an increased sugar content which is very popular on the international market. Particularly in Japan where great emphasis is placed on the texture and colour of food, SA pines, which tend to be pale yellow and rather acidic or sour to the taste, are finding that it is difficult to win further market share.

Furthermore, pineapple farming in Asia is dominated by small, near subsistence farmers. These farmers often deliver their pineapples to the canning factory by the bakkie or wheelbarrow load. They are entirely at the mercy of the canning factory which can raise or lower prices at will. In this way the cost of the unprocessed pine is kept low. This combined with efficient factory production processes has resulted in Asian producers being able to produce at considerably lower cost than SA canners.

As a result a number of canneries have attempted to diversify into producing other products. In some cases this diversification process has barely begun and the companies are still undertaking viability studies. In one case, for example, the cannery had begun producing small quantities of pineapple jam and was tentatively marketing it nationally. This same company had sub-let a portion of its factory to an entrepreneur who was packaging small quantities of pineapple chunks for the frozen vegetable producers. Pineapple chunks are used in particularly the 'stir fry' and oriental vegetable mixes. Other possibilities for diversification include the production of hard-boiled sweets, a variety of jams, and more blended juices.

"Bakkie" is the South African term for a pickup truck.
9. Degree of Co-operation in Montagu/Ashton & Paarl/Wellington

9.1 Farmers/Primary Producers

Relative to metropolitan Cape Town, both study areas are sparsely populated, and the almost exclusively white farming community is close-knit with considerable contact amongst farmers in the area. This contact often takes place on a day to day basis and is largely informal. In addition, this contact is formalised through membership of the Western Cape Agricultural Union and similar town-based farmers' associations. As registered members of the CFB, farmers are kept informed of the activities of the board. The research activities sponsored by the board are of particular interest to the local farmers.

In general, however, there is only very limited co-operation taking place horizontally, i.e. amongst farmers. The most common example of co-operation is when one of the farmers runs out of fertiliser or some similar input. In cases like this, farmers will contact their neighbours and request a loan if the neighbour has sufficient for his/her own needs.

With regard to co-operation in the use of machinery and equipment like harvesters or ploughs, the options are considerably more limited. Firstly, almost all the farms surveyed used labour to harvest the fruit. Of critical importance for those farmers growing for the domestic or export fresh fruit market is that the fruit is harvested at the optimal time and not left on the tree to over-ripen. If delays in harvesting are experienced, e.g. through having to wait for a tractor, the quality of the entire crop may be compromised. In addition, if the fruit is left on the tree and not picked, this impacts negatively on the following season's crop. The difference in the price paid for export fresh fruit and that for canning grade fruit is substantial and most farmers were unwilling to take the risk implied in co-operative or group purchasing of tractors. Where a very specialised piece of equipment is required, such as a deep plough and where the time that each farmer will require it is known well in advance, such as prior to new planting, the machine can be leased from service providers in the area. In this way the large capital outlay which would otherwise be required if the machine were to be purchased is avoided.

In the Montagu/Ashton area the main crop is apricots. Approximately five years ago there were 800-1000 small farmers in the area. These farms often consisted of a handful of hectares of land and were generally run by the farmer and his wife with the occasional seasonal employment of two to five labourers during the picking season. Amongst these farmers the sharing of bakkies and trailers to transport the crop to the canning company was quite common. With the industry in decline the last few years, however, many of these small farmers have gone bankrupt and this type of assistance no longer takes place to any significant degree. The only substantial co-operation occurring between farmers is with regard to the statutory marketing of their fresh produce through the single channel export marketing organisation Unifruco.

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47 Apparently some skill and experience is required to identify fruit at the correct stage of ripening so that it can be transported without over-ripening.

48 Less than 400 small apricot farmers are still operating in the area.
Contact between farmers and the various research institutions (e.g., Infruitec and Elsenberg) seems on the surface to be good. Farmers are not entirely happy with the costs involved, which in one case ran to R200 per hour plus travel expenses, but they do acknowledge the expertise of these institutions as well as those of the agricultural extension officers.

Innovation in the industry is at a low level with few exceptions. In Wellington water is in short supply and the introduction of micro-jet irrigation has resulted in cost reductions in terms of water and weed killer. Micro-jet irrigation allows water to be used more efficiently as it is sprayed directly on the tree. The gaps between trees, where weeds grow, receive less water and subsequently weeds are less likely to survive and thus require weed killer.

At the machinery level an engineering company in the Wellington area has pioneered the development of a purposeful plough which can be used to uproot young vine-stocks. The Wellington area has the perfect mix of climatic factors for the growing of vine-stocks and this has led to a concentration of producers in the area. The original design for the plough was seen by Nederburg Wines in Germany. They approached the engineering company with rough drawings of the plough. The engineering company then built prototypes and refined certain details until they had found a design which fitted the local conditions best. The company had close contact with Nederburg throughout to ensure that the design of the plough was such that it would not damage the vine or its roots. The local market for the plough is relatively limited with about 40 units the maximum that could be sold in the district area. As a result the engineering company made further refinements which now allow the plough to be used to uproot sweet potatoes, an increasingly important crop in the area.

Exports of the plough are limited as its size to value ratio does not make it viable to transport over long distances. The company is however informally marketing the product in nearby towns.

The potential benefits of a greater degree of co-operation in this section of the pipeline are hard to establish. While farmers consistently bemoan the low prices they are paid for canning grade fruit the canners acknowledge that the returns for farmers are not all that high. The canners retort is that if the international playing fields were level they would be able to pay the farmers more per ton. However with the canners themselves subject to declining margins as Greece and Chile increase their production levels, this is unlikely to occur in the short to medium term. Considerable resources have been and are still being allocated to research to extend the growing and harvesting season of the various fruit cultivars.

Developments in this area appear limited as South Africa (being in the Southern hemisphere) already enjoys a seasonal advantage over Greece although not Chile. Our harvesting season is also longer than that of either of our main competitors and the possibilities of extending it through the development of longer producing cultivars are subject to the basic constraint of the long time period required before a tree is able to produce at optimal level. For this reason farmers are unwilling to re-plant whole sections of their land although they are planting the new cultivars during their periodic re-planting. A fruit tree has a limited period during which it produces optimally. After a number of years its level of production begins to decline and it needs to be destroyed and a new tree planted.
9.2 Processors/Secondary Producers

In both study areas these organisations show an exceptionally low level of co-operation at both the horizontal and the vertical levels. By and large they operate as isolated units and have minimal contact with either the producer of the fruit, the supplier of the equipment used in the processing plant or the marketing agent. This is true for the industry as a whole although less true in the case of small and medium sized enterprises (as opposed to the recreational and micro enterprises).

9.2.1 Recreational Processors

The owner/managers of these enterprises were found to know one another reasonably well particularly in the close-knit Montagu study area. However co-operation at the horizontal level is non-existent.

At the vertical level because of the community spirit particularly amongst farmers and their wives, co-operation around the sourcing of some inputs was found. This mostly applied to the sourcing of receptacles (glass jars) and to a lesser extent the vessel used for making the jam (large pots). The other inputs such as sugar, grease-proof paper, string and labels are purchased from the local supermarket at retail prices. Often friends and neighbours were approached as sources of glass jars. Processors in this category are motivated by the ‘tradition of making jam’ rather than any profit motive.

9.2.2 Micro Processors

These enterprises do not co-operate at the horizontal level at all. In fact their products tend to be very similar in terms of price, quality and presentation. In many cases outlets will stock two, sometimes three, different enterprises’ products and competition for shelf-space at the local farm-stall is relatively fierce. Innovation around the presentation of the product seems to have reached a plateau with products at first glance indistinguishable.

The owners of these enterprises know one another well or at the very least know who their competitors are. Notwithstanding this, they fail to exhibit any tendency towards co-operation or mutual benefit assistance. A number of reasons for this could be proposed:

- The relatively depressed state of these small town economies has led to increased competition amongst these informal processors. The massive influx of tourists to the Western Cape has not translated into increased sales volumes for these enterprises.

- There is still a tendency amongst this group towards regarding processing as a hobby and not as a serious business proposition. This tendency is partly caused by an inability to finance expansion and to innovate around the presentation of the product. There is certainly a desire to expand operations but these high potential enterprises are constrained by the lack of fairly basic information and funds. Information flows around issues like local marketing, (i.e. farmstall level) and regional marketing, (i.e. metropolitan Cape Town) and beyond are imperfect.

- These enterprises uncritically assume that they cannot benefit from the use of the same tactics, e.g. bulk buying, used by larger organisations. This holds true only under certain circumstances and certainly co-operation amongst these small ‘informal’ producers around the purchase of inputs like sugar, glass receptacles and even printing would lead to substantial savings.
At the vertical level of co-operation things look slightly more promising. Some of these processors are vertically integrated with their supplier of fresh fruit (often through marriage or other familial ties). In these cases the acquisition of the fruit is simple, efficient and highly cost-effective. Where and when the fruit needs to be purchased, the processor will generally approach his or her neighbouring farmers or friends or relatives who are farmers. In addition because the production process is unmechanised, the processor may purchase the lowest quality fruit as the damaged parts can easily be discarded. In this way, the cost of the fruit input is minimised. With regard to the purchasing of all other inputs no contact occurs between the processor and the producers of the input.

9.2.3 Small Processors

At the horizontal level Pulpeco has very little contact with other pulp or juice makers. There are two possible reasons for this. Firstly, the other pulp or juice makers in the region are situated some distance from Pulpeco. This makes it more difficult for a co-operative relationship to develop. Secondly, they are also considerably larger and utilise much more advanced technology. This should be a positive aspect in that Pulpeco can imitate the more advanced technology. Unfortunately, access to finance is so limited that in this case technological upgrading is not a possibility.

Thirdly, the managerial structure of the company is not conducive to, say, the production manager taking time-off to visit other plants in the region.

A similar situation was found in the preserving industry. Preserveeco had no co-operative relationship with SAD, its main competitor in the study-area. However, informal social contact occurs as the partner of Preserveeco worked for SAD for a number of years. This contact had resulted in Preserveeco being made aware of some of the new technologies being employed by SAD. It has however not materialised into anything more, as the new machinery (liner setters) used by SAD is much more expensive and is designed to handle much larger packaging units/higher volumes than Preserveeco. Preserveeco had commissioned a machine from a large food processing company in the study area but found them to be expensive and unfeasible with regard to jamous delivery.

Jameco1 and Jameco2 exhibit significantly higher levels of co-operation than do the jam makers in the recreational and micro sectors. The owners of Jameco 1 & 2 know one another well and use telephones or personal contact as often as once a week. These two companies co-operate mainly around the sourcing of the fruit component of their inputs. For example if the farmers in the Paarl area are not able to supply Jameco2 with sufficient fruit they will approach Jameco1 and either purchase the fruit directly from them or enquire whether they can recommend someone in their area who will be able to supply them with the necessary quality and quantity of fruit. Jameco2 asserts that the price Jameco1 ordinarily charges them if they purchase the fruit from them rather than the local farmer, is very competitive with a negligible margin charged by Jameco1.

While both companies are aware of the recreational and micro enterprise jam makers in their respective areas they do not perceive any of them as a serious threat and do not actually have any contact with them. Both companies have considerable contact with their supplier of receptacles. Control Glass has a monopoly in the glass jar market and significant problems with the procurement of glass receptacles have been identified by Jameco 1 and 2. They have not thought about combining their orders but do occasionally co-operate.
If one of them runs out of a particular input and has an urgent order to fill.

Both companies also discuss customers and particularly bad customers so that the ‘risk of bad debts is reduced’.

There do not appear to be any secrets about their respective jam recipes and they do not actually compete head-on which has helped keep their relationship amicable.

At the vertical level both companies have frequent contact with Consol Glass. Both report dissatisfaction with the price and service of this vital input supplier. Jamco1 reports that Consol was unable to supply them with a very small decorative jar in 1994 as the mould for that particular jar had been purchased by another company. The cost of making a new mould would have been astronomical and would not have been a viable option for such a small company. Apparently the problem was solved recently but it is still questionable whether Consol has the ability to supply these companies efficiently and cost-effectively. Jamco2 reported similar problems and has in fact gone so far as to try to import particularly the small, decorative (42 g) jars. They believe that it would be cheaper than purchasing locally but are discouraged by the large order which the exporter requires. Importing the jars would also require that capital of some R200 000 be made available as a letter of credit for the supplier company.

Jamco2 also reports that Consol often takes up to three days to respond to an order, often to inform them that the order cannot be filled for lack of stock. This is a particularly serious problem towards the end of the year when Jamco2's customers such as Woolworths are unable to wait for orders. Jamco2 claims to have solved this problem by ordering large stocks a number of months before December. However, this is a reactive measure and there appears to be no easy way of treating the root cause of the problem.

Both companies have had contact with Infinitec in the past and in the case of Jamco2 report that this contact has been very valuable. Jamco2 reports that they had a machine built to preserve the fruit and Infinitec sent a food technologist to their premises to conduct full tests on both the working of the machine and the quality of the final product. Some dissatisfaction was expressed at the cost of these exercises which included travel expenses and an hourly rate.

With regard to co-operation on machinery supplies, Jamco1 does not use machines at all. Jamco2 had in-depth discussions with the manufacturer of its machinery although to a large extent the machines used, e.g. large suspended cooking pots, are relatively unsophisticated. These discussions included contact at the design stage, the scale model stage, and then regular report backs for the first few months.

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94 Personal communications

95 They could not be more specific but the figure mentioned was over R100 000.
10. DEGREE OF CO-OPERATION IN EAST LONDON/BATHURST

10.1 Farmers/Primary Producers

The pineapple farmers in the area know one another well. They are also all members of the Pineapple Growers Association and are thus in regular contact with one another. The farmers are well aware that their individual existence is dependent on the success of their neighbouring farmers, as the canners are now extremely vulnerable to further declines in production volume. Levels of co-operation thus seem high and some farmers were in fact willing to volunteer their time to assist the neighbouring parastatals to increase their production volumes.51

10.2 Processors/Secondary Producers

The processing industry is highly concentrated and all three canners are well aware of the activities of their competitors. Canco2 which claims to be the most efficient producer in the area also claims to have an open-door policy for other canners in the industry. It is unclear to what extent this opportunity is utilised although Canco2 estimates that the other canners visit them at least twice per year.

Co-operation is high at the association level where the Pineapple Association has pioneered an innovative marketing tool in South Africa.

The Association has designed and built an extremely large fibreglass pineapple approximately three stories high, which is housed on a working pineapple farm in Bathurst. The fibreglass pineapple houses a small lecture room in which a video describing the farming and canning of pineapples may be viewed. It also houses an impressive exhibition of pineapple farming paraphernalia as well as glass cases containing exhibits of the wildlife which can be seen in the area. The farm on which the exhibit is housed contains a restaurant and pub, conference facilities, curio shop, holiday chalets and organises tractor tours for people interested in learning more about the practicalities of pineapple farming. Some pineapple farmers also run informal Bed & Breakfast establishments for tourists wanting the ‘farm experience’.

Unfortunately, the increased violence and crime seen in the area over the last few years has taken its toll on tourists who now prefer to drive from Cape Town along the Garden Route as far as Port Elizabeth (PE). From PE tourists either fly to Johannesburg or East London bypassing Bathurst which has seen a drastic fall-off in tourists passing through the area. This has negatively affected not only the pineapple industry but the whole tourism industry in the area which includes important craft markets in both Ciskei and Transkei.

The industry association has also been responsible for commissioning two reports detailing the state of the industry.52 While the documents in question are of undoubted assistance it is unfortunate that they have tended to take on the appearance of lobbying mechanisms. Furthermore their diatribe against the government and its economic policies imply a rather...

51 Serious problems with the farm management of both parastatals were raised and these issues have been dealt with at some length in both local and national newspapers. It is beyond the scope of this report to adequately evaluate these claims. It is clear however that serious investigation into the activities of these parastatals is now overdue.

A number of points in this regard can be made. Firstly, when the three remaining canners were asked whether it would be possible to work an extra shift if more pineapples were available, the overwhelming response was that while volumes could be increased to a limited extent a two- or three-shift day was not viable. Canco2 was adamant that a "work culture" had not yet been developed amongst its workers and felt that supervision would be extremely difficult to ensure. Canco2 asserted that they had attempted a second shift but that it had been a disaster due to a lack of skilled supervisory staff.

With regard to the Exchange Rate (ER) manipulation, it is unclear why the pineapple canning industry, much more so than the canned meat canning industry, is disadvantaged by the exchange rate. In addition, they fail to explain how it was that the industry could compete in the late 1970s and early 1980s when the real ER was even more over-valued than at present.

Accordingly, they argue that the industry's ills can be solved by merely devaluing the currency, the lowering of the 24% import tariff applied in the EU, and increasing the farmland planted to pineapples to that of the 1950s and 1970s.

A simplistic and static approach to the difficult task of economic policy formulation. This has also enlarged the impression that the industry is engaging in crisis management rather than exploring proactive means to solve the industry's weaknesses.

According to the consultants Agri-Africa, who produced the reports, the pineapple industry would still be profitable were it not for "political intervention" in terms of exchange rate manipulation. They further resolve that

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\text{If government is not prepared to abolish exchange controls immediately it should find some way of compensating this industry for these losses.}
\]

...
11. POLICY PROPOSALS

11.1 Government-National Level

In October 1994 the Department of Trade & Industry (DTI) distributed a Discussion Paper proposing a wide range of changes to the entire framework within which small businesses operate. This paper was widely discussed and more than 60 workshops were held country-wide during which input around possible changes to the paper was requested. Subsequently a White Paper (Policy Framework) was tabled in parliament. The White Paper was also presented to the President’s Conference on Small Business in March 1995 and at this conference the government’s proposals were widely discussed and on the basis of the representations made by the more than 2 000 delegates, a National Program of Action on Small Business Development was constructed.

The DTI’s White Paper outlines an holistic national strategy for the development of small business. This section will attempt to focus these policies for the national fruit processing industry.

11.2 Government-Provincial Level

The Western Cape Provincial Government’s Department of Economic Affairs and RDP has started a process aimed at developing the ‘agro-processing’ industry in the province. With this in mind the Department recently held a workshop attended by community-based organisations, e.g. RDP Forums, and NGOs involved either in SME or agro-processing development. The next step in the process is the commissioning of a three month research project which is intended to answer the following questions:

- What economic activities are being pursued in each major town in the WC?
- Whether they are economically viable in the long-term and exhibit any competitive advantages?
- Which industries should on the basis of the above be supported and what support is required?

The provincial government has also expressed its intention of involving large, established businesses in its strategy for the province and to this end intends approaching business organisations in Western Cape and requesting their assistance (financial or otherwise) in furthering the economic development of the Western Cape.

The department remains tentative in its proposals until the research has been completed but possible strategies include the setting up of pilot projects and the encouragement of mentoring relations and/or joint ventures.

11.3 Proposals Based On Findings In Study Areas

In many ways the threats and opportunities facing the fruit processing industry in the WC and the EC are similar. To some extent the proposals to minimise the threats and maximise the opportunities in these two provinces thus overlap. These proposals acknowledge this and suggest inter alia ways for the WC and EC fruit industries to interact.

11.3.1 Information Centre

The most critical barrier to entry found in the study areas was an absolute lack of information relating to a whole range of business issues. Perhaps the most telling observation was that the desire to start their own business was expressed by many people and organisations in RDP Forums but they had no idea of what business to
start, what to produce, how to produce it, or who to market their products to.

The DTI White Paper proposes that Local Business Service Centres (LBSCs) be set-up in various towns and that they act as the main supplier of both information and ‘real’ services. While these LBSCs are an important pillar in the DTI strategy, this paper suggests that they need to explicitly have a sectoral focus. This is not to say that other industries should be discouraged from the area but rather that the limited financial and other resources available from the DTI be applied to those industries with the greatest potential for success.

The study areas at worst exhibit a static comparative advantage in the production of fresh fruit. At best, the knowledge and expertise in the production of processed fruit products is strong and limited interventions could see this competitive advantage exploited more effectively. The production process in the production of jams and preserves is relatively simple and well-known throughout the study areas. While considerable variation is possible with regard to the ‘mix’ of fruits used, the cooking time and sugar content is largely standardised. The LBSCs in the study areas therefore need not concern themselves with how the fruit is processed, but rather with supplying information relating to material’s management, potential markets, marketing and presentation of the final product.

11.3.2 Export Assistance

Although the micro and small companies identified in the WC study areas all have the potential to produce export-quality products, they lack the financial base to allow them to produce sufficiently large quantities to make up an export order. In addition they would require assistance to bring them into contact with export agents who are able to assist them efficiently and cost effectively. While this function could well be provided by private sector companies, it is proposed here, that it should rather be part of the services taken over by the LBSCs in the area. In this way the suitability of the agents could be established beforehand. This is important as the tenuous financial position of the small and micro enterprises would make them highly susceptible to bankruptcy if an export order were cancelled or incorrectly filled. This is also an area where inter-province co-operation could be successfully encouraged. The basic export marketing for deciduous and sub-tropical fruit is very similar. One could thus envisage a focused export agent operating out of a LBSC who is responsible for marketing both the WC and the EC fruit processing capabilities. While many of the canneries in the two provinces have discussed co-operation amongst themselves it appears that parochial provincial interests have prevented this type of inter-provincial co-operation from being placed on the agenda. Further investigation of this option is recommended.

11.3.3 Food Processing Forum

The production processes for the small and micro producers and the large formal producers are very different. However, the management skills relating to issues such as input procurement and marketing are to an extent transferable. In addition, Woolworths has a well-funded food processing research facility. Early indications are that the company would be willing to assist micro and small ventures by offering advice around the processing of fruits. In addition, the main player in the ‘formal’ canning industry has no objections to assisting ‘informal’ processors although

\(^{33}\) Apparently practically every farmer’s wife is capable, if not actually doing so, of making jams of some sort or another.
the exact terms and nature of the assistance is unclear. At this point it is essential that a pro-active stance be taken and that a forum representing all role players from retailer to producer of inputs be established so that offers such as these can be utilised before the willingness to offer them is lost.

Woolworths encourages product innovation through its policy for new product selection. Essentially this retailer’s ‘competitive advantage’ lies in its ability to offer customers food products of very high quality and low preparation time or food products of a unique nature. The latter suggests that jams and juices of different fruit blends would be encouraged. Perhaps the entrepreneurs in the processing industries need to be even more innovative and look to completely new fruit-based products. A variety of national and international ‘life-style’ magazines are available. These often highlight new developments in the food industry such as the increased popularity of fruit cheeses and butter on the international market.

The exploitation of this type of opportunity rests squarely with the fruit processing industry and it is envisaged that this forum acts as the main conduit through which innovative new products can be identified, discussed and designed.

11.3.4 Tourism Assistance

All the study areas identified tourism as being of importance at the moment and likely to increase in importance in the near future. Assistance should therefore be offered in this regard and could lead to the establishment of a ‘Fruit Route’ based on a concept similar to the highly successful Stellenbosch ‘Wine Route’. As a result of the greater distances to be travelled to reach Montagu as compared to Stellenbosch, the potential also exists for farmers to open their farmhouses for use as overnight guesthouses as well as to provide tourists with the opportunity to sample a variety of branded preserves and jams. In the EC this already occurs to a limited extent with both individual farmers and the Pineapple Association offering accommodation facilities. With the national government planning to raise the profile of the tourist industry in terms of its potential for job creation it is important that the farming industry grasp this opportunity. The basis of such an operation, e.g. a Fruit Route, should still be the export of high quality, high value-added products with a strong emphasis on brand name marketability.

11.3.5 Manufacturing Assistance

Particularly in the EC a number of manufacturing inefficiencies were identified. These included the impossibility of operating a second or third shift in the factory as a result of the lack of supervisory staff. While this report cannot make firm recommendations around the work organisation of the canneries a few observations are appropriate.

The shopfloor operates on the basis of production lines with people assigned to either the pineapple ‘pieces’ or the pineapple ‘chunks’ line. Teamworking is non-existent and supervisors are prominent. It is suggested that the industry investigate the use of teamworking and new team-based incentive schemes to increase productivity at this level.

Furthermore, the Industrial Development Corporation (IDC) offers special schemes to encourage companies to install further shifts. If the fortunes of the EC pineapple industry depend on the canneries running a second or third shift and the main impediment to this is a lack of skilled supervisory staff then two options can be proposed. In the first instance the canneries could attempt to use more modern participatory management and supervisory systems or, alternatively, lobby
the relevant government departments (including the DTI) for funding for the establishment of training facilities for supervisory staff. Naturally the industry's case would be considerably stronger if the Pineapple Association took a more supportive and pro-active stance on this issue. In addition at the level of the large 'formal' canneries the possibility of training supervisory staff for both deciduous and sub-tropical fruit processing plant management would appear to have some viability.

It is important to note that second or third production shifts would be totally insupportable if the supply of pineapple fruit is not guaranteed. In the light of the declining pineapple production emanating from the parastatal farms it is suggested that the Pineapple Association actively supports the upgrading of the parastatal farms growing capability. As pineapples require approximately 18 months to reach the harvesting stage it would take a minimum of two years for these parastatal farms to reach optimal production levels. It is further suggested that, concurrent to the re-development of the parastatal farms, a supervisory training facility is established. In so doing, by the time the new pineapple production comes on stream supervisory staff will be available to ensure that second or third production shifts become a reality.
12. CONCLUSION

The fruit processing industries in both the Western and Eastern Cape have the potential to remain major employment providers. Furthermore, these industries have, especially in the WC, the potential to play the role of an efficient vehicle for black empowerment in some of our impoverished rural communities. Start-up costs and barriers to entry are invariable quite low. What is required is the provision of basic information and accessible support mechanisms or institutions to provide back-up support once the enterprises have been established.

However, important medium-and long-term decisions need to be made now. In the WC, it has been argued information flows need to be encouraged. In the EC, training facilities need to be established. This report is clearly not the last word on the subject, but a start has now been made. Further research and analysis of the industry is vital as is discussion of the practical development and implementation of some of the policies proposed.

Neither the research nor the implementation of these policies can wait very long. They need to be acted upon now to fully grasp the potential these industries possess.
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