

SOUTH AFRICA'S AVOCADO INDUSTRY — THE PRESENT POSITION

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Co-ordinated Development

In order to co-ordinate the development of any rapidly growing industry it is necessary to estimate its strength and potential. The strength of a fruit-producing industry could be measured by the amount of productive trees as well as by the organized ability of such an industry to market their fruit orderly. Production and export figures over the last decade as well as the amount of young, not yet productive plantings could very well serve as an indication of the potential of the industry. However, without determining such growth indexes it is still possible to state that the avocado has aroused a keen interest among farmers and consumers alike. Potential avocado growers are daily seeking advice on matters concerning this crop. The major queries are, however, usually those that affect financial matters, such as:

How many trees make an economic unit?

What are the prices to be expected?

Is it better to export than to market locally?

How much could be made per tree?

Which cultiváís give the best results?

It is therefore reasonable to state that the teething problems of the avocado industry in South Africa have been more agro-economic than technical horticultural. This statement must, however, be clarified, that there are numerous cultural problems which will become increasingly important once the industry has expanded to full capacity when competition becomes increasingly stringent and arable soil becomes more and more scarce. Only then will each unproductive existing tree be mourned and calculated as a serious loss.

In order to find answers to at least a few of these agro-economic questions affecting the avocado industry and to establish what its strength and potential is, a survey of the industry was attempted. Questionnaires were sent out to more than 300 avocado farmers, of whom 110 responded. Fortunately, these 110 respondents own slightly more than a third of the estimated half a million avocado trees in South Africa. The calculations derived from this survey are, therefore, based on a large enough sample to be representative.

Avocado Growing Regions

The commercial avocado growing areas in South Africa are limited to the Lowveld of the Northern, North-Eastern and Eastern Transvaal. Smaller scale avocado farming areas occur in the warmer low-lying areas of Natal, and along the coasts of Natal and the Eastern Cape Province. Small plantings are also in existence in the Western Cape Province. The Lowveld of the North-Eastern Transvaal is at present responsible for approximately 39% of the total avocado crop. Plantings in this area are mainly in the vicinity of Tzaneen, Letaba and Magoebaskloof. The Lowveld of the Eastern Transvaal, in the vicinity of White River, Hazydew, Nelspruit, Schagen, accounts for more or less 35% of the total crop. The Soutpansberg, Louis Trichardt area in the Northern Transvaal is at present producing about 20% of the total yearly avocado crop. Natal and the Cape Province contribute about 5% and 1% respectively to the total yearly crop.

Results of the mentioned survey indicate that 74% of the avocado growers are full-time farmers, of which only 37% regard the avocado as their main crop. Bananas, timber, vegetables, and citrus are the most popular subsidiary crops cultivated with avocados. It is further interesting to note that only 38% of the avocado farmers have more than a thousand trees. This figure corresponds quite well with the number of farmers regarding avocados as their main crop, probably indicating that an average full-time avocado farmer in South Africa owns more than a thousand trees.

Cultivars

The cultivar favoured most by the South African avocado farmer is without doubt the Fuerte, comprising 71% of the total amount of avocado trees. Fifty-two per cent of these Fuerte trees are, however, still five years and younger. This indicates that approximately half of the total Fuerte plantings are at present in full bearing. The reason why such a considerable amount of new Fuerte plantings were made over the last five years is probably due to the overseas demand for fruit from this avocado cultivar and the now successful sea transport of avocados to the export markets. The Fuerte also ripens during the season April to August when international competition among avocado-producing countries on the European markets are practically non-existent.

Another avocado cultivar which is gaining popularity is the Edranol, already comprising 10% of the total plantings of which only 44% are in full bearing. Fruit from the Edranol cultivar resembles that of the Fuerte in shape, size and colour. It does, however, possess a slightly coarser and thicker rind which makes it less susceptible to mechanical damage during harvesting than the Fuerte which has a very thin rind. This rind characteristic of the Edranol makes it an excellent avocado for export. The maturing time being from July to September also fits well into the export season.

The cultivar Ryan comprises 4% of the present total plantings. This cultivar, although it is inferior to the Fuerte, was planted exclusively for its time of ripening, i.e., October to December when avocados on the local markets are relatively scarce.

The Hass cultivar, which could be described as the one with hidden quality, comprises only 2% of the total avocado plantings. Fruit from the Hass cultivar has a poor external appearance due to the dark purple, coarse and relatively thick rind. Internally it is of an

excellent eating quality, the palatability being probably even better than that of the Fuerte. Due to prejudice of the buying public on the external appearance of the Hass fruit it has always been a poor seller in South Africa and abroad. The present tree figures do, however, reflect a revived interest in this cultivar, in that 79% of the total amount of Hass trees are between the ages one to five years. It could still very well become the most sought-after fruit on the local market during the late season, September to December.

The other not yet mentioned cultivars, like Carton, Collinson, Booth, Itzamna, Gottfried, Linda, Sharpless, Bennick, Nabal, Dilly, Duke and others less known, constitute 7% of the total amount of avocado trees, while seedlings represent 6% of the total. From Table I it is obvious that these latter mentioned cultivars and seedlings exhibit much the same age spread. Less than 40% of the trees in both these classes fall in the age group one to five years of age, indicating a decreasing popularity in these tree types when compared with the young-tree figures of Fuerte, Edranol and Hass.

TABLE 1. THE RELATIVE AMOUNT AND AGE OF THE DIFFERENT AVOCADO CULTIVARS IN SOUTH AFRICA

<i>Cultivar</i>	<i>Age (years) group</i>	<i>Percentage of cultivar</i>	<i>Percentage of total</i>
Fuerte	1-5	52.0	71
	6-9	30.9	
	10 and over	17.1	
Edranol	1-5	56.6	10
	6-9	41.0	
	10 and over	2.4	
Hass	1-5	79.0	2
	6-9	17.7	
	10 and over	3.3	
Ryan	1-5	55.3	4
	6-9	32.4	
	10 and over	12.3	
All other cultivars	1-5	39.7	7
	6-9	26.8	
	10 and over	33.5	
Seedlings	1-5	37.5	6
	6-9	36.4	
	10 and over	26.1	

When the total amount of trees are classified into age groups (Table 2) it becomes obvious that 51% of all the avocado trees in South Africa are not yet producing an economic crop.

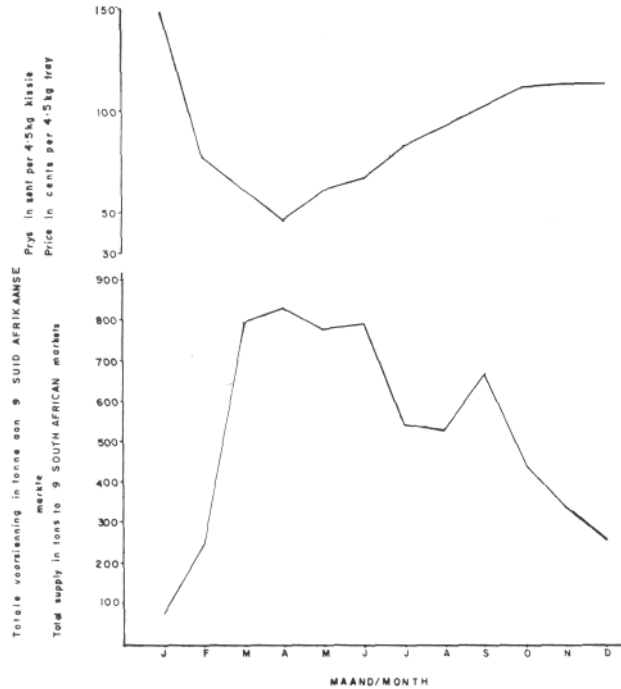


Figure 1. Average monthly price and total supply of Avocados to nine markets in South Africa, 1970.

TABLE 2. PERCENTAGE AGE DISTRIBUTION OF TOTAL AMOUNT OF AVOCADO TREES IN SOUTH AFRICA

<i>Age group years</i>	<i>Percentage</i>
1-5	51
6-9	32
10 and over	17

Marketing

The total avocado production of 1970, being 1,828,115 trays or 9,140 tons, could theoretically be doubled by 1975 when the now young trees start bearing crops of commercial importance.

The amount exported during 1970 was 468,721 trays or 2,343 tons. This represents more than a 50% increase in the export figure over the last two years. The recent establishment of an Avocado Growers' Association was probably one of the main reasons why such an increase in the export was evident. It was through demands from this Association that the Department of Commodity Services' Division of Inspection drafted a new set of export regulations for the avocado, which comes in force during the 1971 season. This is a clear indication that the Association intends exporting only the best quality fruit, which could only be beneficial.

The local market served as an outlet for 1,119,394 trays (61% of total crop) of fruit and the oil extraction factory bought 240,000 trays. Average prices on nine local markets (Johannesburg, Pretoria, Durban, Port Elizabeth, East London, Cape Town, Kimberley,

Bloemfontein and Pietermaritzburg) varied between R0,46 and R1,47 per tray of avocados (Fig. 1). Fig. 1 indicates that during the period March to July, these mentioned markets were relatively glutted. The average prices, which dropped below the yearly average price during this period, is a good indication of the over supply. This has been the general pattern since 1950 (LeRoux, 1970).

This period, March to July, corresponds quite well with the ripening season of the Fuerte, which is a danger sign when the amount of young Fuerte trees are considered.

General Problems

The main cultural problems are root rot caused by the fungus *Phytophthora cinnamomi* and a virus disease commonly known as "Sun Blotch". Post-harvest pathological problems are "Ripe Rot", caused by *Colletotrichum gleosporoides*, and Diplodia stem-end rot. Post-harvest physiological problems are tissue senescence (lead discoloration) and uncontrolled quick ripening for which wrappers and waxing materials are being tested.

A problem which is at present receiving much attention is the determining of the stage of maturity which would yield a commercial acceptable product. It would be desired to establish an index whereby this maturity stage could be determined.

REFERENCE

Le Roux, J. C. (1970). The ideal Summer-Maturing Avocado Cultivar. Farming in S.A. 411, 1-4.