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THE PRODUCTION OF PAPAYAS, PECAN AND MACADAMIA NUTS IN SOUTH AFRICA

by

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INTRODUCTION

The papaya industry in South Africa still maintains a steady production trend and confirms previous forecasts that production will fluctuate little over a period of 10 years. During previous Agricultural Outlook Conferences the escalating production of macadamia nuts and the fact that 90% of the crop was exported, were mentioned. The current situation is still in keeping with this forecast. The production of pecan nuts is less dramatic and the increase in production is small. Certain bottle-necks can be advanced as reasons for the tardy development of this industry.

PAPAYA

The previous opinions, as raised at the Agricultural Outlook Conferences, confirm that the production pattern of the papaya industry in South Africa is more or less stable. The reduced production during the seasons 1981/82 to 1983/84 as a result of the drought, was transposed to an increase up to 23 232 tonnes for 1984/85, which compares favourably with the 24 643 tonnes for the 1980/81 season (Table. 1). A slow increase in production is expected in the long term as a result of plantings of the new solo-type papaya. The export of papayas is still only a minor marketing factor and it is anticipated to remain insignificant.

The local marketing pattern is unchanged and during 1984 some 86,7% of sales were on the 14 national markets in Johannesburg, Pretoria and Cape Town (Table 2). This corresponds with the 1983 season. An improvement of the local marketing mechanism can bring about better distribution, as in the case of the Klerksdorp market, which grew from a 0,5% seller in 1983 to 1,8% in 1984. The greatest demand for fruit will still, however, be in the big cities. The prices received by producers during 1983 and 1984 remained stable at R385 and R386 per ton. This signals a message to the producer, i.e. to increase production per unit surface area and to farm more efficiently so as to increase the margin of profit. He should not rely wholly on increased market prices.

As for the moment, no overproduction is experienced and no such problems are envisaged for the future.

The consumer pattern is expected to be maintained. Because no growers' association or any other organisation exists which can do market development, individual farmers will probably not deviate much from their present marketing strategy. The venture of developing smaller markets is therefore not undertaken. The lack of such an organisation further obstructs liaison between producers and the Research Institute to discuss technical problems and determine research priorities. Viewed from the cultivation angle, the following reasons, amongst others, why papayas are not grown commercially on a larger scale, can be upheld. Firstly the short-livedness of the plant, due to fungal diseases. Furthermore the growth habit of the plant, which grows too tall to be harvested easily and is therefore replaced within a few years. In the last instance, the heterogenity of the plants, which are normally grown from seed. The consumer is still having to buy fruit of varying quality and this, to a certain extent, suppresses the demand.

Research is focussed on gaining consistenly higher fruit quality. If this is achieved, the demand should increase. The industry can extend if new areas with a suitable climate are developed to supply unexploited markets. Such areas have to be frost-free and water must be available for irrigation purposes. High temperatures during summer, combined with a low rainfall, is advantageous as this represses fungal diseases on the fruit.

PECAN NUTS

At Agracon '83 the statement was made that pecan nut production was increasing steadily and everything indicates that, as yet, no saturation point is in sight.

Production during 1984 showed an increase as against previous years (Table 3). The last prediction is therefore confirmed by the latest production figures and the long-term forecast is unchanged, i.e. that production will increase.

As yet, the local market for pecan nuts is, to a great extent, unexploited and no marketing strategy exists to encourage or increase consumption. This nut is largely unknown to local consumers.

Approximately 32% of the production is exported to countries where a greater demand for this nut exists. There is no campaign to promote local sales of pecan nut.

Marketing is mainly done co-operatively by a private company and the SA Dried Fruit Co-op. As production increases, purposeful marketing strategies will become a necessity.

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The pecan nut is a supplementary crop to other subtropical fruits and will maintain this status in the future. It does, however, fulfil an important role in the farming industry as a whole and provides an important component for diversification. This crop can also be grown in areas where frost occurs and other subtropical fruits can not be grown successfully. In this respect it fulfils an important role in making total farm utilisation possible.

Pecan nut production is therefore an established industry with prospects of growth in the future.

Liaison between producers and the Citrus and Subtropical Fruit Research Institute takes place at regular Technical Committee meetings. Attention is focussed on production problems, the most important bottle-neck being the escalating cost of insect- and disease-controlling agents.

New areas can be developed, but a lack of technical skills, encouragement and the shelling and processing of the nuts are the main reasons why plantings in these areas are at present not viable.

MACADAMIA NUTS

During Agrocon '83 it was stated that the production of macadamia nuts was increasing and that the demand for this nut, of which practically the whole crop was exported, was virtually insatiable. The 1984 production figures confirm this forecast. Production increased from 600 tonnes shelled nuts in 1982, to 1 000 tonnes, and 90% of the crop of 250 ton kernels was exported (Table 4).

The rising production tendency is expected to continue and the export market to remain stable. The current export of 90% of the crop is advantageous as the overseas market is well established and good prices are obtained.. The question does, however, arise whether it would be wise in the long run to neglect the underdeveloped local market and to deny it a local product. In this respect the macadamia nut is a unique crop, since the product is hardly known and practically inprocurable in this country, even though an industry of R2 million has been developed. It is therefore safe to claim that the marketing possibilities of macadamia nuts are endless and that overproduction is out of the question, provided the expected increase in production is supported by orderly marketing and publicity.

The production of macadamia nuts is centred mostly in the frostfree areas of the North-Eastern Transvaal as well as in Natal. In the areas with suitable climates, further development is envisaged, but this must take place in consulation with the established co-operative system and in col-

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loboration with the South African Dried Fruit Co-op., who handles the marketing. Shelling and processing of the nuts is done by the Levubu and Lowveld Co-operatives.

The macadamia nut is therefore an established industry with a growing future. As is the case with pecan nuts, good liaison exists between producers and the Citrus and Subtropical Fruit Research Institute on Technical Committee level. Research is focussed on production problems, but the greatest bottle-neck in the eyes of the producers is, likewise, the escalating cost of insect- and disease-controlling agents.

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TABLE 1 Production and gross value of papayas

Production (ton)									
1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
20 010	19 784	20 354	25 135	21 753	24 643	19 374	19 577	19 761	23 232

Value 1984/85 : R7 358 764

TABLE 2 Sales of papayas on the 14 National Produce Markets

	1984 %	1983 %	1984 R/t	1983 R/t
Johannesburg	49,7	55,5	384	389
Pretoria	23,5	24,7	249	359
Cape Town	13,5	10,2	415	401
Bloemfontein	4,4	3,6	381	372
Pietermaritzburg	2,1	2,2	398	382
Port Elizabeth	1,9	1,8	401	363
Klerksdorp	1,8	0,5	609	948
Durban	0,7	0,6	576	610
Other	2,4	0,9	-	
		Mean	R386	R385

TABLE 3 Production of pecan nuts

	1980	1981	1982	1983	1984
Unshelled nuts (ton)	340	200	330	450	500
Kernels (ton)	115	66	100	150	170
Mean price/ton kernels					R6 000
Total value		423 000	735 000	900 000	R1 020 000
Export					32%

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TABLE 4 Production of macadamia nuts

	1980	1981	1982	1983	1984
Unshelled nuts (ton)	150	320	600	850	1 000
Kernels (ton)	30	80	150	210	250
Mean price/ton kernels					R8 000
Total value	100 000	100 000	1,5 mill.	1,7 mill.	R2 mill.
Export					90%

SUMMARY S

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by

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The papaya, pecan and macadamia nut industries are relatively small in terms of the South African agriculture, yet of great importance to the producers who grow these crops and provide in the consumer demand for fruits and nuts.

Papaya

This is a well-established industry with a constant annual production of approximately 20 000 tonnes fruit, currently valued at more than R7 million. The export of papayas is negligible. The markets in Johannesburg, Pretoria and Cape Town handle about 90% of the fruit, which is sold on 14 national markets. A slow increase in production is expected. There is no organised body which co-ordinates marketing or undertakes liaison with the Citrus and Subtropical Fruit Research Institute. Research is aimed at improving cultivars and fruit quality.

Pecan nuts

The pecan nut industry is established and production increases slowly each year. The current production is approximately 500 tonnes shelled nuts, which represents more or less 170 tonnes kernels, of which 32% is exported. The industry is at present worth R1 million.

Co-operative shelling of the nuts and organised marketing are essential for the expansion of the industry to new areas situated far from the present production areas.

Proper liaison between producers and the CSFRI takes place in order to determine priorities for industry directed research.

Macadamia nuts

This industry showed a healthy and rapid rate of growth over the past years and current production is approximately 1 000 tonnes shelled nuts, which represents 250 ton kernels with a value of R2 million. More or less 90 % of the kernels are exported. Local marketing is totally undeveloped and marketing prospects are good. The industry grows steadily and as further development takes place, the developing of markets will become essential.

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Liaison between producers and the CSFRI is good, resulting in researchers tending to industry-directed problems in accordance with priorities.