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The Marketing Problem of the Fruit Enterprise

by

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The factors which govern the economic situation in any dynamic economy are subject to continual change. This disturbs the harmony in every sector, because these sectors continually have to adjust themselves to meet this change, and this results in instability. In agriculture especially these adjustments involve great sacrifice and lapse of time. These time lags and the absence of co-ordination in agriculture give rise to circumstances which are the cause of many intricate problems. The marketing problems, with special reference to the effect of supply pressure, are discussed below. The naartjie industry is taken as an example.

THEORETICAL FRAMEWORK

Due to the fact that the presentations used are not to be found in any specific text book, it is necessary to outline the general approach of this article.

Initially the problem is viewed *ex ante* (i.e. a futuristic view). The usual supply and demand curves are the basic tools. These curves are relatively inelastic in the case of agricultural products, and are presented as such (Fig. 1). It is assumed that supply (A_1A_1) and demand (V_1V_1) are in equilibrium, and result in a price P_1 during a specific time period t_1 . From period t_1 to t_2 the demand is assumed to increase from V_1V_1 to V_2V_2 , and this increase continues through periods t_3 to t_8 .

The causal factors in respect of these changes in demand are of such a nature that they supply a continual stimulus for the expansion of demand. Examples of

such factors are the growth of the population and an increase in the per capita income. In South Africa both these items have shown an increase and would move the demand curve towards the right. The improved marketing technology would also expand the demand. All other factors affecting demand, such as substitution and consumer preference, and especially those which would cause demand to decrease, are being ignored. Figure 1 is a graphical presentation of the situation discussed above.

In Figure 2 the movements of the supply curve are incorporated with the movements in demand, as discussed above, and the price is shown under these varying conditions.

P_1 is the price which prevails during period t_1 and represents the point of equilibrium for A_1A_1 and V_1V_1 . Price P_2 eventually exists when the demand is V_2V_2 and the supply A_2A_2 . However, the curves A_1A_1 and A_2A_2 are the same curve, because in the short run supply is very inelastic and cannot expand suddenly. It is, however, not perfectly inelastic due to the fact that the economic location of areas further away from the market is improved, and fruit which is usually not marketed find their way to the market as a result of the higher price. Thus the higher price P_2 induces a number of events: Firstly, producers will cultivate existing orchards better; secondly, the economic location of more distant areas is improved; and thirdly, producers in favourable physical and economic locations will expand their enterprises by establishing new orchards.

During the period t_3 this process is repeated and the higher price P_3 develops. Although the young trees are not producing at this stage, the supply curve becomes more elastic, because existing orchards are still better cultivated and fertilised, and production in areas which have a favourable economic location still expands. More trees are established because of the continued increase in price and because the price rise is considered reasonably permanent.

During period t_4 the high price is regarded as permanent and, although the elasticity of supply increases, the younger trees are still not in production. Period t_5 marks the beginning of the productive life of the younger trees and the price declines to P_5 . In those areas which obtained a favourable economic location, as a result of the temporary high price, establishment of new orchards cease, but the marketing of the fruit of existing young orchards will be continued as long as the marketing costs are covered by the income received. In areas with an exceptionally favourable economic location, the establishment of new orchards might even continue.

In the following periods more young trees start producing, and the price declines rapidly to P_6 and P_7 . Not only do more young trees become productive but the yields increase; yields of naartjie trees increase up to their seventh year. Period t_8 represents the period in which the market is absolutely glutted with naartjies. As can be seen from Figure 2, the increase in supply exceeds the increase in demand and gives rise to the well-known "farm problem",¹⁾ namely a downward pressure on prices.

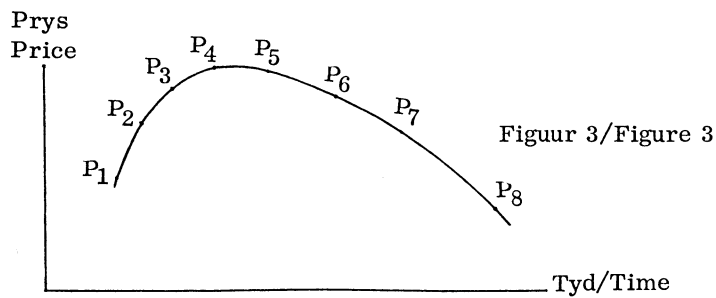
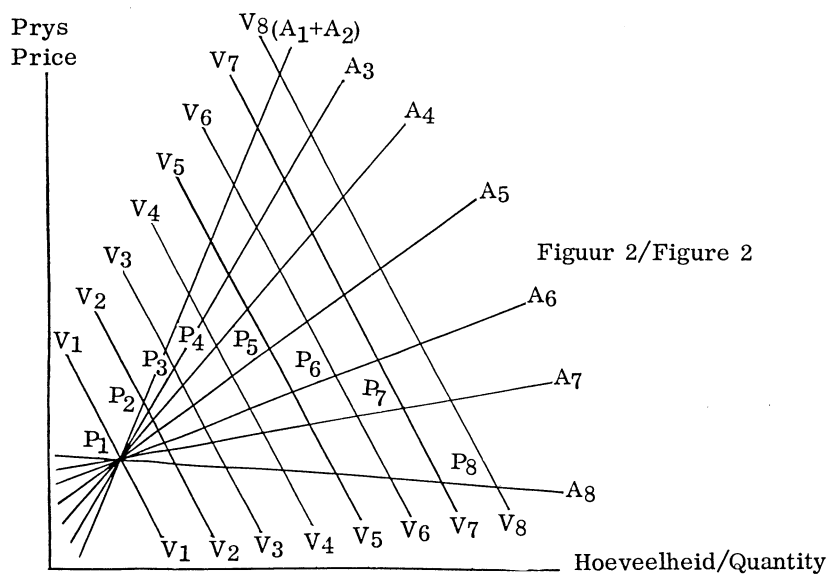
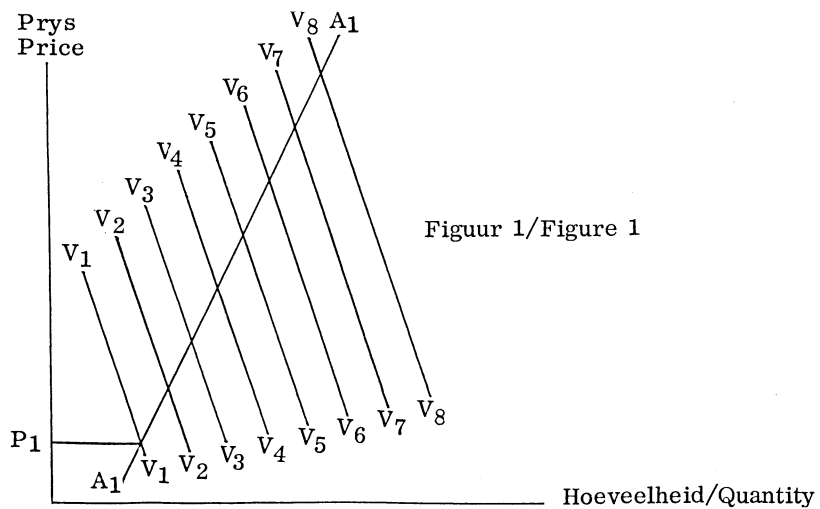
When the intersections of the various supply and demand curves at different points in time are connected, the long-term variation in price can be observed, as in Figure 3. Figure 3 thus presents an ex poste point of view of price variation; in other words, in retrospect to what has occurred.

Price P_8 , which denotes the minimum price necessary to cover marketing costs, will prevail until demand has increased sufficiently, or, alternatively, supply has decreased by a big enough margin - because of deterioration and neglect of old trees without any subsequent establishment of new orchards. The increase and decline of prices, referred to above, will eventually be repeated. Thus we have a continuous cycle of the price variation in Figure 3, which can be explained by the time lag in supply or the "cobweb theorem".²⁾ The instability of prices, as explained by this theorem, is well known.

It thus appears that any gain in the form of an expansion in demand is soon neutralised by the action of producers, which stimulates the supply and results in forcing prices down again. Because the adjustment in supply is unco-ordinated and is subject to time-lags, prices can even be suppressed to a lower level than before the increase in demand was created. This instability gives rise to the "farm problem" which harasses producers. The good intentions of a reorganisation thus lead to greater chaos. New methods to expand the demand are considered in order to alleviate the burden of producers. However, demand cannot be expanded ad infinitum, and therefore manipulation of supply is necessary to ensure that the benefits of new schemes are not neutralised by the counter-reaction of producers.

1) Gregory, J.J.: Prys- en Inkomstebeleid in die Landbou met spesiale verwysing na Suid-Afrika. (Doctoral thesis, University of Pretoria - 1962).

2) Schumann, C.G.W., Franszen, D.G. and De Kock, G: Ekonomie, 'n Inleidende Studie. (Issued by Universiteit-uitgewers en Boekhandelaars - Stellenbosch).



CONCLUSIONS

1. The writer is of the opinion that no marketing scheme can operate successfully without some degree of control over supply.

2. Persons in administrative capacities should realise the importance of this aspect, and in any reorganisation of marketing, the supply of the commodity should be regulated. Efforts by co-operatives to this effect should include manipulation of supply.

3. It may be possible to limit production, which in this case would mean the regulation of new plantings. The Co-operative Act makes no provision for such drastic action.

4. The Marketing Act, however, makes provision for marketing quotas. If the quantity of a product which may be marketed is limited, it would have the effect of limiting production. The result would be that production would be decreased gradually to comply with the quota. If this quota is enforced at an early stage, it will not be necessary to curtail production; expansion of production will be curbed. The quota can be increased gradually as the consumer demand for the product in-

creases; co-ordinated action, and thus stability, will result. The limitation of new plantings does not seem possible from a practical point of view, but a system of marketing quotas deserves close attention.

5. Inter-co-operative limitation of supply (production) is also possible if members are willing to act rationally of their own free will.

The following quotation illustrates that the idea of manipulation of supply has also received attention overseas:

"In May 1963, the British Minister of Agriculture announced changes in agricultural policy designed to secure steadier markets by relating produced supplies to market requirements. The intention is not to raise market prices generally by restricting supplies, but to put a floor into the market and avoid the exceptionally low market prices which could undermine the whole system." 3)

3) Factel No. 404: Reference Division,
Central Office of Information,
London - 5th June 1964.

THE WORLD BY THE YEAR 2,000

The net flow of grain from the developed regions to the less developed regions in 1957-60 amounted to 15 million metric tons per year and provided 3 per cent of the total grain supply in the importing countries. North America accounted for most of this grain; Oceania, for the rest. By the end of this century, the net grain flow into the less developed regions is expected to account for 5 per cent of total grain needs. But because the populations of these regions will be more than double their present size, the net grain flow may be nearly 70 million metric tons per year instead of 15 million.

--(L.R. Brown, "Foreign Agriculture", 10.2.1964)