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Achievements of and challenges to South African Agriculture*

by
S. J. J. DE SWARDT

In many parts of the world agricultural production tends to increase, mainly as a result of technological developments. In the Republic production is at such a level that markets abroad have to be found for part of the output. The magnitude of this is, however, closely linked with varying weather conditions in the country, as clearly demonstrated during the past number of years. Only three years ago maize and dairy products had, along with the traditional imports of wheat, to be imported because of low production. This position changed to such an extent during 1966/67 on account of favourable weather conditions that the largest maize and groundnut crops in our history were harvested. This not only resulted in large exportable surpluses of these products, but along with a large sugar export surplus and low world prices, the export trade in agricultural products became one of the most serious problems of 1967. The ever increasing quantities of citrus, summer and canned fruits which have to be exported in the face of growing intensity in competition in foreign markets also make it more difficult to maintain profitable outlets for these products. At the same time the possibility of the United Kingdom joining the European Common Market is growing, and we also have to give urgent consideration to the problems which could arise for our exports should South Africa's best overseas client be compelled to abolish the preferences which we now enjoy in that market.

The Government, various Departments and the export organizations involved have naturally been devoting attention to these problems for a considerable time.

We live in a dynamic world and it is therefore appropriate to try and establish at this juncture what the consequences for South African agriculture and the South African economy in general could be, should the United Kingdom join the E.E.C. on conditions unfavourable to us.

It is my intention to draw attention to certain facts and considerations which have to be kept in mind in treating the theme of the congress. My intention is to outline certain background information against which the problems we face must be seen.

* Opening address at the sixth Annual Congress of the Agricultural Economic Society of South Africa, Pretoria, October 25, 1967.

THE NATURE OF OUR AGRICULTURE

The first question which arises, is what kind of agriculture are we actually concerned with in this second half of the twentieth century? To what extent is its existence dependent upon exports and to what extent can the South African economy be harmed if the preferential duties we enjoy in the United Kingdom should disappear?

What should impress any student of the progress of the impressive economic development in South Africa since 1910, are not only the extensive developments in *inter alia* the fields of agriculture, mining and industry, but the great transformation which has taken place in the agricultural industry as a whole. In the past agriculture was with us, as in all other countries, the traditional means of livelihood for the majority of the population. The development of mining during the last quarter of the previous century brought about the first changes. Mining and other accompanying developments established for the first time an extensive domestic market for agricultural products. The growth in agricultural production was, however, slow, possibly on account of the devastating consequences of rinderpest in 1896 and the Three Years' War (1899 - 1902), and also because of imports free of duty or at nominal rates of duty, low shipping freight rates and the low prices of agricultural products in international trade. Considerable quantities of foodstuffs were still being imported when the effects of the first World War came to be realised during 1915-16. Even during the early twenties dairy products, ham and bacon and most dried fruits were still imported; without mentioning edible oils and groundnuts for oil expressing which were imported even during the late forties.

The domestic market for agricultural products commenced to grow rapidly after World War I. This process was accelerated by industrial development which followed on the protective and positive industrial policy established by the authorities as from 1924. Grain output increased so rapidly that grain-elevators had to be built during the twenties for the export of maize. This indicated what the farmers were capable of when once they were equipped to produce a product and received the correct guidance and price encouragement.

From a marketing point of view three groups of agricultural products developed which are produced in considerable and increasing quantities, namely:

- (a) Those produced essentially for export, like the traditional pastoral products - wool, mohair, hides and skins - as well as certain new products like wattlebark, citrus and deciduous fruits;
- (b) those produced mainly for an expanding domestic market, but of which there were at times considerable exportable surpluses - maize, kaffircorn, butter, cheese and eggs; and
- (c) those produced almost entirely for domestic consumption - milk, meat, vegetables, sub-tropical fruits and tobacco.

Since the beginning of World War II and shortly afterwards certain products in group (c) moved to the middle group, e.g. jams, canned fruits, wine and oilseeds. Along with these a few speciality products for export became important such as Karakul pelts, and flowers including bulbs.

INDUSTRIAL GROWTH AND THE DOMESTIC MARKET

While around 1910 the agricultural industry still continued along traditional lines with exports confined mainly to pastoral products and with a comparatively small domestic market, the position was entirely different by the middle of the century. Apart from pastoral products and speciality products (mainly perishable products intended for an out-of-season overseas demand) production for the domestic market became the main pillar of an agricultural industry organised almost entirely on a commercial basis. Where numerous and large farm families in 1910 largely led a self-supporting existence, it was very different 50 years later. Meanwhile the great depopulation of Whites from the rural areas was taking place and the large industrial centres came into being. While in 1911 46 per cent of the Whites lived in rural areas, the corresponding figure had declined to 16 per cent in 1960. In 1911 27 per cent of the total population (all races), including those in towns, were classified as urban and in 1960 47 per cent.

The rapidly growing urban population, particularly after 1950, and the accompanying increase in income per head, created such a growing demand for agricultural products, that this could only be met through intensification and expansion. The contribution of agriculture and forestry to the country's Gross Domestic Product (as calculated by the Bureau of Statistics, to the nearest R million) valued at current prices, with constant 1938 prices in brackets, increased as follows:

Year		R Million
1911	62	(74)
1920	122	(57)
1930	78	(79)
1940	120	(111)
1950	432	(219)
1960	588	(207)
1965	735	(239)

It is true that since 1950 agricultural exports also showed a large increase and that a considerable portion of the increase of agriculture's share in the Gross Domestic Product represents export earnings. Nevertheless the greatest part of the increase in agricultural production since 1940 must be ascribed to domestic disposals. Precise statistical data for this are not readily available, but this deduction can be made on the basis of the available information. In 1963 it was estimated in the Department of Agricultural Economics and Marketing that at that stage only about 30 per cent of total agricultural disposals were exported. If the pastoral products are excluded the percentage is very much smaller.

Concurrently with the rising demand and output, the state of self-sufficiency on the average farm changed radically to a highly specialised undertaking, where power machinery and other new techniques of a technical age are applied for ever higher production per man at optimum costs, to endeavour to ensure a reasonable profit. Fewer Whites now produce much more than previously with the assistance of a larger number of non-Whites and with power-driven machines and techniques derived from the results of research in our own country and from many other countries. Farming has become a capital intensive and highly technical undertaking which can only move forward on profits.

ADAPTABILITY OF THE SOUTH AFRICAN AGRICULTURE

The three suppositions which I wish to submit here are:

Firstly that thanks to the intelligence, ability and initiative of our farmers along with the means placed at their disposal on the part of the authorities and otherwise, our agriculture has shown a surprising adaptability to changing circumstances over a relatively short period of time.

Secondly that although the export markets are very important for certain products, the welfare of the agricultural industry as a whole is largely dependent upon the growth and prosperity of the country's entire economy.

Thirdly that it has become the most important function of agriculture to provide food and fibre as efficiently and economically as possible for the population and the manufacturing industries in general, so as to maintain the South African economy in a healthy competitive position vis-a-vis its competitors in international trade.

In this context I must point out that the expenditure on food alone amounts to a quarter to one-third of the family budget of urban workers, and also that although agricultural exports in total are large, the value of other exports has since 1950 become proportionately even greater. The percentage agricultural exports represents of total exports (excluding gold) has declined as follows:

1920	60 per cent
1930	68 per cent
1940	69 per cent
1950	51 per cent
1960	37 per cent
1965	38 per cent
1966	35 per cent

In these calculations processed agricultural products such as wine, spirits, canned fruits and sugar have been included as agricultural products. This means that the value of contributions of other sectors such as processing, containers and transport are unavoidably included.

DEPENDENCE ON OTHER SECTORS

Attention should also be directed to the fact that the agricultural industry, apart from its increasing dependence on the domestic disposal of its products, is becoming increasingly dependent on the other sectors of the economy. For instance, if we consider the cost items incurred in the export of a case of oranges (on average for the 1965 season according to figures provided by the S.A. Citrus Exchange) we find the following:

	Cents per case
Producer's cost of production	75.00
Packing material	53.00
Picking & packing (mostly packhouse)	39.00
Railage and charges to ship	42.12
Total costs up to time of shipment	209.12

This shows that the costs added to the producer's own cost of production - without allowing for his profit margin - are considerably more than double his own costs. Furthermore, a great deal of his 75c per case is for purchased items off the farm such as machinery, fuel, fertilizers, chemicals, etc.

According to a recent analysis by the National Marketing Council (in a carton of canned peaches destined for export) the fruit represented only 29.5 per cent of the canners' total production costs. In a carton of apricots the fruit represented only 19.5 per cent of the total costs, the balance being for cans, cartons, sugar, factory costs, etc.

These examples call attention to another important point, namely that in valuing our agricultural exports, on a f.o.b. basis, considerable sums must necessarily appear in these figures which do not represent income to the agricultural sector but to other economic sectors such as manufacturing, transport etc.

Consequently we should be carefull not to attach overrated values to incomes for agriculture based on gross export values of commodities derived from agricultural products.

The main point is that all these factors when taken together, emphasize the high degree of interdependence we have reached between the well-being of the agricultural industry and that of the other economic sectors. When they flourish agriculture also flourishes. Conversely, when they run into difficulties this must necessarily affect agricultural producers adversely. But what is equally true is that a flourishing and efficient agricultural industry brings great benefits to the other economic sectors, since present-day agriculture has become such a big and growing purchaser of industrial goods such as machinery, dips, medicines, insecticides, fertilizers, other chemicals, a wide range of containers, all building materials, fuels, lubricants, piping, wire etc.

It is in this connection that a profitable export market for agricultural products not only benefits farmers but also a wide range of townsmen. The maintenance and expansion of our export markets in farm products are in the long run of common benefit to agriculturists, industrialists, employees and others.

It is true that agriculture has become a capital intensive undertaking employing progressively less labour per unit of the product, but at the same time it should not be overlooked that agriculture is increasingly giving more employment to people off the farms in producing more goods and services for the farmer in processing, transporting and merchandising more agricultural commodities. I believe it has been estimated in America that for every frontline agriculturist there are about twenty other people off the farms either working to supply or serve him with his needs or getting his products to their end users. What the ratio is in South Africa I do not know - but it is likely that it is high. The farmer on the land is a kingpin around which a great deal in the towns and cities revolves.

A LOOK INTO THE FUTURE

I think I have dealt adequately with the question I posed at the beginning of this address, namely what kind of an agricultural industry are we concerned with and should we keep in mind when dealing with the perplexities of the export problems which may face us in the near future? It is one manned on the whole by able, enterprising farmers who are successfully applying modern production methods and techniques, to produce not only adequately for the needs of our fast growing urban population, but in addition considerable exportable surpluses - this in spite of the fact that South Africa has poor resources of land and water by the standards of Western Europe and North America. We have entrepreneurs who could adapt themselves, if need be, reasonably soon to changing circumstances. They operate costly and highly capitalized units and must either continue to make profits or go under.

So what of the future if they, or some of them should lose important markets, or be compelled to accept considerably reduced prices. One can only speculate on the answer to this vital question, but for my part I am inclined to view it with confidence in the long run - mainly for three reasons:

Firstly, barring wars or revolutions, Western Europe is firmly on the road to ever higher living standards and higher consumption of foodstuffs, fibres and other goods South Africa is able to produce. So even if we should experience initial setbacks I believe they would be overcome, although adjustments and sacrifices will probably have to be made in some instances.

Secondly, in spite of the high degree of efficiency many of our farmers have attained in their production, considerable improvements could still be made to effect higher yields and reduce costs. Marginal land, used for certain crops when prices were good, may have to be diverted to alternatives. Excessively high land values will probably have to be revised downward in many instances. This will no doubt cause hardships, but this is the inevitable price the entrepreneur who has overreached himself must sometimes pay.

Thirdly, our own economy is growing at such a rapid rate that marketing setbacks resulting from shrinking export markets could, with planned diversions, be taken care of by producing alternative products for the domestic market. According to the latest estimates of the Department of Planning it is reasonable to expect that the total population of the Republic, i.e. of all races, will continue to increase at a rate of 2.53 per cent per annum up to the end of this century. On this basis the population growth can be represented as follows:

Year	Total population	Whites, Coloureds and Asiatics	Bantu
	Million		
1960	16.0	5.1	10.9
1970	20.2	6.5	13.7
1980	26.4	8.2	18.2
1990	33.6	9.7	23.9
2000	41.8	11.2	30.6

With rising incomes and standards of living consumption rates of most foodstuffs should on the average increase by about 3 to 4 per cent per annum - thus within 10 years consumption will have increased by 30 to 40 per cent above what it is today. In other words, if we should be exporting at present about one-third of what we produce, we can in 10 years time consume it all - provided production levels are not raised.

In practice, it is of course not so simple. For instance we export much more than one-third of the present production of citrus, deciduous fruit and groundnuts. However, South Africa is fortunate in that she can produce quality products, and these will always find buyers in a world where living standards are rising. Our pastoral products will always find open doors almost everywhere. The point I wish to make, however, is that even if the worst should happen, South Africa could within a decade, so reorganize its agriculture that any bad knock in exports could be taken care of without calamitous results. The necessary adjustments will naturally have to be made and in severe cases the State will as usual have to assist in the public interest and finance producers during a transition period of adjustment.

CONCLUSION

In spite of all the shortcomings in our agriculture, I have over the years been greatly impressed with the basic soundness of the industry in general, and the ability of the majority of its people to adapt themselves to changing circumstances. The domestic market which is growing rapidly has created opportunities for our agriculturists which only 20 years ago were viewed by many as impossible. The quality of our export products and the efficiency of our export organizations are of such a nature that overseas buyers are keen to do business with us. Moreover we remain an important importing country in spite of our great industrial development. International trade has on account of all the international political influences become very complicated but it remains a two-way venture.