ECONOMIC ASPECTS OF THE FERTILIZER INDUSTRY IN THE REPUBLIC OF SOUTH AFRICA

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Earlier speakers have highlighted financing and financial aspects pertinent to the fertilizer industry, while the historical developments within this sphere of enterprise have also been traced. The previous speaker stressed economic aspects peculiar to the manufacture of fertilizer and I shall endeavour to focus attention on some economic aspects which have a direct bearing on our modes of operation and decisions relative to maintaining viability of the fertilizer industry.

We in the industry conform to the controls and policies required by Government authorities but do of course negotiate for a better understanding of our problems or seek adequate support from these authorities where our investments are in danger of erosion.

As we are all aware, the fertilizer industry is subject to price control, import control (outside the latest control measures introduced at the end of 1971) and other related functions such as distribution constraints concerning raw materials and State subsidy on fertilizer for the benefit of the primary producer in the agricultural sector, etc.

Most contacts with Government on an industry level concerning the aforementioned matters are through subcommittees of the Fertilizer Society of South Africa. For example, we have an Economic Affairs Subcommittee embracing price control matters and then a Supplies Subcommittee embracing either matters related to necessary imports or importation constraints when local production is adequate to meet the country's needs.

Graag sal ek op hierde stadium in detail die volgende aspekte bespreek, naamlik prysbeheer oor die kunsmisnywerheid en dan aangeleenthede ivm produktevoorrade.

Prysbeheer of prysvasstelling

Pryse is maar altyd 'n moeilike saak. Die verkoper streef na hoër pryse, terwyl die aankoper in die teenoorgestelde rigting dink. Die instansie wat beheer moet uitoefen het dus 'n taamlike moeilike taak — in hierdie geval die Departement van Nywerheid in oorleg met die Departement van Landbou wat pryse jaarliks vooruit vasstel.

In dié verband word dit aangeneem dat die doel van prysbeheer oor hierdie nywerheid soos volg is

(i) Om die verbruikersprys van kunsmis so laag moontlik te hou;
(ii) Om afwenteling van onnodige kostes deur die bedryf op die verbruiker te verhoed;
(iii) Om die bedryf 'n redelike rendement op sy kapitaalbelegging te besorg.

Om binne die raamwerk van hierdie doelstellings te bly moet die bedryf aan sekere sekondêre doelstellings uitvoering gee, naamlik

(i) Kostes moet so laag moontlik gehou word;
(ii) Doeltreffendheid van produkte moet gedurig aandag geniet en verbeter word;
(iii) Produksie en verkope moet sover moontlik gerasionaliseer word om onnodige oorvleueling uit te skakel; en
(iv) Om 'n steeds groeiende aanvraag te skep en daaraan te voldoen.

I mentioned earlier that members of the industry have to abide by a price-control formula which, in broad outline, provides for

(a) An allowance for costs. Production or manufacturing costs, which embrace materials, wages, factory overheads, maintenance charges, etc, as covered by Dr Kieser. Such items as debtor outstandings and bad debts, etc, are also covered in the price-control allowance for costs. Then direct and indirect selling and marketing costs involved in disposing of product plus market development, applied research and product promotion, etc, can be allowed for. Furthermore, the cost of allowance also covers administration, as well as distribution costs.

On the surface the formula is quite straightforward but there are facets which do create problems concerning recovery of costs for the industry which I would like to touch on.

For example, nearly a two-year time-lag exists between historical costs submitted and the year or time when they are applicable to prices and may be recovered. To illustrate, trading and operational costs only available at the end of 1970 would be used for cost determinations and then applied to 1972 prices. In times of increasing costs through inflationary pressures, this must erode profitability of any venture. It is true that an inflation allowance is granted but the allowance is arbitrary and, in the minds of industry members, inadequate. Another sore point is the disallowance of certain costs, again on what the industry believes — arbitrary grounds. These can cover part of selling expenses, research expenses or other cost items incurred such as the additional railage to coastal factories, or vice versa, at times of necessity.

Then lastly under this category, I must mention that where savings are effected by the industry through improved efficiencies in various areas, much or all of these are lost through reduced selling prices.

(b) The second aspect of the price-control formula is Estimate of Raw Materials Costs.

Price control generally assumes optimum conditions, whilst buying has often to be made from an alternative source at a higher price or supplies are drawn from an area necessitating cross-railing, without compensation in prices.

Also, in assuming optimum or excessively high throughputs — actual or 80 percent, whichever is the higher — the cost per ton to be recovered is at a lower level than costs would actually be if that high throughput could not be maintained. Before large-scale chemical plants are built the market and market growth is assessed and these plants are then constructed in advance of full demand. Because the plants are costly and take time to construct, capacities are planned in excess of the existing demand. Therefore it can take several years to achieve 80 per cent throughput. The industry's problem here is that the price-control formula makes no allowance for recovering losses in the interim while the plant is under construction and/or producing at less than 80 per cent of capacity.

We must here refer to the exceptionally favourable conditions for fertilizer sales experienced over the 1971/72 season where fertilizer plants have worked at maximum capacities, but let us not forget that this industry experiences the same sort of profit dip which the farmer experiences in time of unfavourable climatic conditions, as fertilizer usage, and hence sales, are closely related to climatic conditions.

Another matter under raw materials that should be considered in the light of my argument is that the industry is

not left with much room for profits when raw material prices such as rock and ammonia are also set by price control. Years ago there were advantages of competitive buying and more economic chartering of ships but now it must be borne in mind that as imports — to a large extent phosphates and nitrogen — have been phased out, these advantages have disappeared.

(c) 13½ per cent return before tax on working capital and the same percentage on fixed capital after capital depreciation.

When this figure was established, tax was 30 per cent and interest about 6 per cent. Today tax is 41 per cent and interest 9 per cent. The old 'dry mixer' type of concern being relatively more dependent on working capital with less invested in fixed capital could 'gear' operations to take advantage of a 13½ per cent return. This is not so easily done now as large sophisticated plants are capital intensive and the ratio of shareholders' funds to borrowed funds has been forced upwards.

From the foregoing I hope I have conveyed some of the financial problems the industry faces relative to profitability which you will agree is necessary if adequate investment capital is to flow into this particular sector.

Whilst on the subject of Price Control, we may briefly touch on the Government subsidy, the extent thereof and its role as it concerns the industry.

From 1967 to 1971 subsidy has been more or less a constant figure which in 1971 was equivalent to

R26-50 per metric ton N sold
R66-00 per metric ton P sold
R 6-60 per metric ton K sold

This rate, incidentally, was lowered by about 20 per cent following adjustments by the authorities when the 1972 prices were announced. The rate is now R21-50 for N, R54-00 for P and R5-50 for K, per metric ton.

We in the industry have no quarrel with these rates but would feel disconcerted if subsidy had to be decreased further or withdrawn in total or weighted in favour of plant foods that do not require a usage incentive.

In the first place, we are still developing in the agricultural sector and have not yet reached optimum fertilizer usage on most crops for most of the major plant foods.

Encouragement to use more fertilizer for greater crop production through direct State aid, apart from other incentives by the industry, should continue. To give an idea of the growth in fertilizer usage I quote percentage growth rates in the Republic for the three major plant foods from 1965 to 1970 inclusive as follows

	Nitrogen	Phosphorus	Potassium
1965	+ 4,2	+ 1,33	— 4,06
1966	— 0,8	— 3,94	+ 2,24
1967	+ 31,07	+ 14,8	+ 18,85
1968	+ 12,28	+ 5,28	+ 11,18
1969	+ 4,21	Nil	— 7,02
1970	+ 20,44	+ 5,49	+ 8,21
Average	+ 11,9	+ 3,83	+ 4,9

Considering these growths in conjunction with the subsidy paid, I believe you will agree that subsidising the farmer has been a contributory factor in achieving the growths I have mentioned.

Daar mag diegene van ons wees wat die vraag vra „Is die positiewe groei in plantvoedselverbruik, soos oor die afgelope sewe jaar ondervind wenslik, aangesien die belastingbetaler daartoe moet bydra? Is 'n beoogde gemiddelde groei van 10 persent vir stikstof, 4 persent of 5 persent vir fosfor en dieselfde vir kalium oor die volgende dekade so belangrik dat die staatsubsidie behoue bly?"

Hierdie Vereniging sê „Ja — doeltreffende toename in die gebruik van kunsmis deur die landbousektor moet tot 'n maksimum aangemoedig word solank die boer se belegging in kunsmis om produksie te verhoog en koste te verlaag, winsgewend is".

Ons weet almal ekonomiese ontwikkeling word gekenmerk deur 'n aansienlike verhoging in die vraag na landbouprodukte, en die onvermoë om voedselvoorsiening uit te brei in ooreenstemming met die groei van die aanvraag, kan ekonomiese ontwikkeling ernstig vertraag. Die hoë peil van ekonomiese ontwikkeling sou nie bereik kon word as binnelandse voedselproduksie nie tred gehou het met die vinniggroeiende vraag nie. In daardie geval sou een van twee dinge gebeur het, of 'n kombinasie van die twee wat nadelige gevolge vir ekonomiese groei sou teweeg bring, naamlik, eerstens sou invoere van voedsel 'n groot gedeelte van waardevolle buitelandse valuta ge-absorbeer het, en tweedens kon voedselpryse onrealisties hoog gewees het.

In die geval van Suid-Afrika egter, wat na wêreldoorlog twee 'n aansienlike populasiegroei toon, het die landbousektor nie alleen voorsien in plaaslike behoeftes nie, maar is deur toenemende voedseluitvoere waardevolle valuta verdien wat weer aangewend kan word vir die invoer van belangrike kapitaalgoedere wat onmisbaar is in 'n ontwikkellende land. Om die toename in die vraag na voedsel en ook die uitvoer daarvan te handhaaf, was die gebruik van kunsmis uiters noodsaaklik, en 'n nog hoër verbruik in die toekoms bly vir ons land noodsaaklik. Uitvoere van kunsmis dra ook natuurlik by tot valuta verdienstes en alhoewel van mindere belang tov winsgewendheid is die bydrae van heelwat belang deur standaard vervaardigingskoste so laag moontlik te kry.

We now come to the matter of supplies.

Phosphates

The industry is presently self-sufficient as far as raw phosphate is concerned and also rock from Foskor for the manufacture of solubilised phosphate fertilizer. Temporary shortfalls occur in respect of finished product when peak demands exceed production capacities as a result of plant breakdowns or inadequate SAR trucks. For the solubilising of P, sulphuric acid becomes an essential chemical in the process and this acid can either be manufactured from sulphur ex imports, with a resultant varying of price dependent on world prices, or from pyrites arising in the mining industry and taken under contract. From a strategic point of view, supplies from the latter source are fairly constant in availability and price but the industry is constrained in absorbing supplies ex this source even if prices are disadvantageous compared to imported sulphur.

Ten years ago South Africa *imported* considerable quantities of basic slag (50 000 metric tons) and rock phosphates (90 000 metric tons) but this has now been reduced to less than one-third for basic slag and nil for raw phosphate. Consequent to one fertilizer concern manufacturing basic slag locally, this society is in unision that *no more slag*

need be imported into the Republic, and representation to this effect has been and will continue to be made to Government authorities whilst local manufacturing capacity can more than meet the demand for this citric-soluble form of P.

The long-term planning by the Government in establishing the Foskor source of rock has been fully supported by the industry through phasing out of imported phosphates in spite of slightly higher prices paid for local material as against the more advantageous prices that have applied to imported material at times.

Nitrogen

The nitrogen situation is somewhat different in that local production is financed almost entirely from the private sector. The plants are capital intensive as we already have heard in earlier papers and this sector must receive maximum protection from the authorities if this operation is to remain viable. Not only ammonia production needs to be safeguarded but also downstream products in their various forms. For this reason, continuous attention is given by the Society to reviewing demand versus availability.

It is, however, disconcerting for the industry as a whole to observe the demands for nitrogen products by some concerns with virtually no, or very little, capital invested in the industry. Hence vigorous opposition has been forthcoming whenever concerns with a minimum capital invested in the fertilizer business demand growth rates considerably greater than that enjoyed by those companies who by virtue of long-term involvement have had to take the "rough with the smooth", ensuring the absorption and storage of local arisings in years when sales are not particularly buoyant. In good years "anyone can climb on the bandwagon" but in poor usage seasons, usually following drought conditions, it can be pretty 'rough' for the entrepreneur who decided that fertilizer manufacture is a rewarding venture!

Potassium

No commercially-exploitable deposits of potassium exist in South Africa, so therefore this element has to be imported and this has to be done virtually on a continuous basis — so the industry is totally dependent on overseas supplies.

The last economic aspect I want to cover concerning this industry is the Early Delivery Rebate. We are all aware that peak demands occur during the spring and summer months in the main where the crop that uses the bulk of the fertilizer produced, is maize. Considering that about two-thirds of the country's usage is confined to the Transvaal and Orange Free State, which is in the main a summer-cropping area. It will be appreciated that adequate supplies of stocks ex factories must be strategically placed before the season to ease distribution. Even and proper distribution, on the other hand, is a primary and major function of running a fertilizer business efficiently and successfully.

Obviously the user or distributor, which is the co-operative movement in the main, is loath to purchase and pay three, six or more months before time of application unless there is a worthwhile profit incentive comparable to normal earning capacity on capital employed. This problem was recognised several years ago and Early Delivery Rebates were introduced. Three schemes apply, viz

Cape — Jan 4% and Feb 3% rebate off selling price
Natal — April 3,5% May 2,75%, June 2% rebate
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Tvl and Free State — Jan 7½% sliding to 2% in May is the rebate for this region.

The Cape and Natal markets, by virtue of the smaller tonnages used, are not of so much concern in this regard as the Central Provinces where *insufficient* product is moved during the first six months of the year, with the result that despatch and distribution congestion becomes a severe problem during the spring and early summer.

It is estimated that only 30 per cent to 35 per cent of the annual tonnage used moves out of factories in the Central Provinces to usage areas during the period January to June. This, depending on the season, would be about 15 per cent to 20 per cent above normal usage demand for various crops such as winter cereal during this period. This movement *is not adequate* and the quantity should be *50 per cent during the first six months to fit in with constant production output of factories.* Here the industry has appealed time and again for a more realistic EDR, ie Early Delivery Rebates, with a greater incentive to buy early. When the EDR was introduced, interest rates were 7½ per cent to 8 per cent, which is no longer the case, and the individual farmer may have to pay 10 per cent.

Laat my asseblief toe om te illustreer hoe rentekoers tot die beperking van die gebruik van die vroeë-afleweringsrabat lei. In die Oos-Transvaal is planttyd vir meeste somergewasse Oktobermaand, terwyl planttyd in die Wes-Transvaal en die Vrystaat meerendeels 6 tot 8 weke later is. Januarie VAR van 7½ persent, Februarie VAR van 6 persent ens. dek net nie die rentekoste tot planttyd — 'n periode onderskeidelik van Januarie of Februarie van minstens 8 maande tot 10 maande en meer. Om net rente uitgawes te verhaal is ook geen aansporing om van die rabat gebruik te maak nie. As ons meer doeltreffend moet bemark en kunsmisdistribusie meer effektief en teen laer kostes wil doen, moet daar aansporing wees. Die huidige VAR moet dus meer betekenisvol wees deur teenswoordige rentekoste te dek plus 'n winsaanmoediging en ok sou voorstel dat die VAR op 'n 10 persent rentekoers gebaseer moet word.

Ek vertrou dat sekere probleme verwant aan ekonomiese aspekte van die kunsmisbedryf in Suid-Afrika miskien deur hierdie bydrae in beter perspektief beskou kan word en dat in die toekoms meer bespreking tussen die owerhede en die bedryf tot wedersydse voordeel sal plaasvind.