

SEASONALITY, MARKETS AND PRICING: THE SOUTH
AFRICAN MAIZE TRADE IN THE EARLY TWENTIETH CENTURY

by

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This paper is concerned with the various factors involved in the marketing of maize at a particular period of transformation in the colonial agriculture of South Africa. The greatest structural obstacles to commercial farming - the sheer immobility of produce, the sluggishness and inelasticity of marketing mechanics, the geographical and seasonal unevenness of supply, the annual cycle of high and low prices - had to be overcome if agriculture was to be capitalized. More importantly, credit and capital had to be made available if the agricultural sector was to break out of the illiquidity trap which so severely turned the terms of trade against it. And these problems involved relationships of exchange and agencies of distribution rather than methods of production. It is largely with these processes that this paper is concerned. So we are looking at a system in transition from the weak market-orientation of grain-farming of the nineteenth century to the highly regulated bulk marketing of the twentieth. It was only toward the end of the nineteenth century and particularly after the Anglo-Boer war that the growing of crops for sale became a central part of many Highveld farmers' productive activities. From the mid-1920s the anarchy of the unchecked market was brought under control by the centralized organization of maize marketing, by the erection of grain elevators in the producing districts, and the development of co-operative societies. The period in between was a time of glut and famine, of great variations in price, of much intermittent, small-scale dabbling in produce markets, of sudden gains and sudden losses. It was pre-eminently the age of the speculator, whose profit depended on his ability to forecast crop yields, gauge price movements, and fulfil ambitious contracts to deliver. It was also a period in which greatly expanded crop production induced the opening up of new markets - internally and overseas - and greatly stimulated agitation against the tyrannous stranglehold of finance capital. (1)

In the post-war years, the decimation of the Highveld stock population meant that the farmer was obliged to rely on cultivation for an income. In order to re-establish himself on the land, the farmer was in many cases obliged to mortgage his land or enter some other form of indebtedness. Then, having acquired a few oxen, implements and seed, he had to rely heavily on marketing a crop in order to repay his debts and recapitalize his farm. Railway construction was very important to farmers, for, without access to markets, grain was unsaleable. The greatly expanded railway construction in arable districts after the war permitted vastly increased acreages to be ploughed and sown. Limited access to markets for grain meant that there was a low ceiling above which cultivation of the land was wasted effort and wasted expense. The coming of railways could, and usually did, revolutionize land use and the intensity of exploitation of the land. Whereas the limits of exploitability in stock husbandry are much narrower without fairly heavy capitalization, crop cultivation, on the other hand, could be expanded enormously without any large-scale, long-term capital investment.

Railways also meant that farmers could survive economically on smaller farms, and that land sub-division could proceed beyond the stage which had previously been the limit of viability. From Frankfort in 1908:

Owing to the sub-division of the properties the farms are becoming so limited in extent that the owners are forced to depend on the production of cereals and, unless they have other transport than the ordinary 'ox-wagon', their means of existence will be exceedingly precarious. (2)

Thus, as farms got smaller, the land was ever more intensively cultivated, and the proportion of land put under the plough increased.

Railways, however, tended to replace local gluts resulting from immobility with gluts in the major markets, as new arable districts were opened up and as more and more land was turned to cultivation as a result. So the more railways that were built, the more flooded markets were likely to become. Of course, there was not over-production in any absolute sense. Glutting tended to be seasonal and regional, given the bottlenecks in the marketing system. While the maize regions were over-supplied, other regions were importing from oversea. While surpluses could not be drained in Heilbron, shortages could not be made good in Jagersfontein. But a situation in which two-thirds of the 1904 maize crop in the ORC was still unsold a year after harvesting was clearly unsatisfactory to producers. In 1907, higher prices on world markets than had ruled for many years, together with a bumper maize crop internally, gave South African producers the opportunity to break into the world market. Agreements between the South African authorities and the Conference shipping lines resulted in special low freight rates for export maize. This was an initiative of primary significance for the maize producer. But let us now look at the way the maize trade worked.

The most obvious feature of the maize trade was the radical fluctuation in prices over the annual cycle. Prices generally dropped sharply at harvesting time as the crop was marketed. The reasons for this precipitate offloading of the crop leading to gluts and poor prices received by farmers are not hard to discover. The problem of storage was a very important one. Heat, moisture, frost and pests all damaged stored grain. Weavils generally made their appearance by November, and very few farmers had adequately insulated storage facilities, without which maize very quickly became unsaleable, so at the most farmers were able to hold back their crops for only a few months. But, given the lack of liquidity in the countryside and the fact that produce was often bonded to the storekeeper in payment of debts long before it was harvested, few farmers indeed could hold back their produce after harvesting for any length of time at all. Of course, the more capitalized few with storage facilities and cash resources could play the market by holding grain back until the price rose, but there were not many of them. On the whole, farmers' costs were met by the extension of credit in one form or another, and working capital was indeed tight. This was the overriding factor in denying farmers any control over marketing.

This over-supply in the months after harvest gradually gave way to higher prices, and frequently the need to import from oversea. A farmer wrote in 1913: "I have watched this maize market for many years, and I see that maize increases in value quite 50% between harvest and the New Year regularly." (3) So traders and wholesalers able to store large quantities of grain were often able to make considerable profits at the expense of farmers selling in an overloaded market.

The dominant relationship of exchange in the countryside was the credit and barter system, which, although it was undoubtedly breaking down in the early years of the century, was still central in many farmers' lives. The system whereby farmers would buy supplies on long credit and then pay off accumulated debts with produce at harvest time severely restricted the flow of cash within agrarian communities. The illiquidity trap also meant that the dealer often bought produce from farmers by barter - by exchanging produce for store supplies.

The storekeeper, like the farmer, also had to run the risk of having to dispose of grain in a chronically overloaded market. Rarely did a small-town storekeeper have adequate facilities for long-term storage. But, more importantly, they had insufficient liquid capital to store grain for speculative purposes, awaiting a rise in prices. They had to sell immediately in order to pay the farmer, if the farmer was to be paid in cash; or to replenish their stocks if, as was more likely, they had bought maize by barter, or received it in payment of farmers' debts for store supplies previously sold on credit. This would diminish the leverage the storekeeper had in the market, for he would very likely find that his store stocks were depleted by the end of harvest, and had to sell his grain at whatever price and in whatever market he could. The result was that very often the inland dealer was compelled to sell on such terms as he could obtain from the big grain merchants, who were likely to take advantage of their felicitous position by buying at low prices. Thus storekeepers relied on high turnover of produce for their profit. If they had to sell soon after harvest, when the price was at its lowest, then what they lost in margin of profit they would have to gain on turnover. This situation was largely due to the credit and barter system, which severely restricted the liquidity of agrarian commerce, and placed tight restrictions on the storekeeper's cash resources. Inevitably, the middleman profited at the farmer's expense, and the big middleman lorded it over the small dealer.

These problems were well illustrated in 1909, a year in which the maize crop was very large, and prices dropped dramatically with the harvest. Dealers in the northern districts of the ORC were "having to dispose of their grain for a mere song at the seaboard. Immense quantities of mealies have been forwarded ... and yet neither the merchant nor the farmer has been able to make any profit." The storekeepers were, in fact, out of pocket over the transactions. The coastal firms were selling in Europe at 12 to 13 shillings per bag, while the local consignee in Heilbron, say, was being paid 7/6, and the farmer who produced the grain even less.

The ORC merchant thus being unable to get a fair price for the grain is naturally unable to pay the farmer a reasonable figure and the producer accordingly, whose interests should primarily be consulted, suffers and has to bear the brunt of this double system of middlemen. (4)

Many storekeepers would try to break out of the illiquidity trap by entering into "futures contracts" - selling maize which had not been harvested and which they had not yet received, although it might be covered by debts owed by farmers. Nevertheless, many started on the brink of insolvency, thereby making contracts for the future delivery of produce which they had not yet bought, and hoping to be able to buy at a cheaper price when the harvest came in than the price at which they had, in advance, sold. The wholesaler buying produce from a storekeeper did not know whether the latter had already bought the produce (or was assured of receiving it in payment of debt), or, on the other hand, if he was speculating on being able to buy sufficient produce, and at a low enough price, in the future, to fulfil the contract. Thus the wholesaler's own contracts were likely to be put at risk, since there was no guarantee of the financial status of the speculating storekeeper. (5)

Quite apart, though, from the regular trader, intermittent dabbling in the produce market was undertaken by speculators, often unscrupulous and financially unsound men, operating on the brink of solvency. This activity was enormously increased by the influx of small dealers with generous credit facilities into the country immediately after the war. As a result of the post-war depression and the consequent credit-squeeze and bankruptcies, many turned to speculation in livestock, maize, wool, whatever produce seemed suitable for profiteering at the time, playing the market in the hopes of small windfall gains.

All this meant that wholesalers, who made their own forward contracts for supplying mills, municipalities or mining-houses, or for delivery to overseas buyers, were continually at risk of not being able to meet these contracts, owing to the

failure of their own supplies to materialize. Inevitably, the small speculator, whether he be a storekeeper or simply a dabbler with an eye to a quick windfall, was a woefully insecure risk. The situation was aggravated by the notoriously misleading yield forecasts, which were likely to cause a great deal of commercial panic when the crop fell far short of expectations. The result of these risks was an increase in the costs of the marketing system, for wholesalers naturally expected their profit margins to compensate for the risks involved.

What commonly happened in the early years of the export trade was that far too large a proportion of the crop was sent overseas at the beginning of the season, with the result that internal supplies dwindled to the point that prices had skyrocketed by Christmas. Over-exportation was largely due to bad crop-forecasting and consequent excessive speculation by export merchants on oversea markets. The selling of "futures" in Britain and Europe months in advance of harvest owing to the prospects of a heavy crop often meant a mad scramble to fulfil contracts when the crop turned out to be much below expectations. This kind of speculation was evident in the bumper year of 1909. But congestion at inland centres and at the ports owing to the inability of the Conference lines steamers to handle the crop meant that many firms had difficulties in delivering contracts. The Director of Agriculture in the ORC noted "a mad scramble for maize before it is fully dry", which indicated that merchants had speculated on European markets in advance of the crop, and that contracts had now to be fulfilled. (6)

As already indicated, bad crop-forecasting was an important factor in over-exportation. This consideration is well illustrated by the experience of 1908. By late November of that year maize was rising in price "with a rapidity unequalled in recent years". Exports had depleted internal supplies owing to overestimating of the year's maize yield, and underestimation of the extent of internal demand. The demand for maize within South Africa had dramatically increased, owing mainly to the ravages of East Coast fever on plough oxen. This was particularly felt in Zululand, where the maize harvest was such that the inhabitants were thrown on to the market for food supplies as never before. The effects of drought had also been severely felt in Basutoland, where it was reported that cattle were being exchanged for maize. Of scarcely less significance was the replacement of the Chinese by maize-eating black labour on the Rand mines. By the end of November, the price of maize on the Rand had risen to 17 or 18 shillings, and it was predicted it would soon reach 20 shillings. By early December, the mining companies were agitating for the removal of the import duty on maize. Before the end of the year, many grain districts were having to import maize at excessive prices. (7)

The year 1912 especially serves to illuminate many aspects of the marketing system. In February 1912, when the growing crop looked uncertain, there was talk of the possibility of enforced importation in the near future, and a big rise in prices. However, a week or two later, excellent rains were reported from the Highveld: "Many who were pessimistic a fortnight ago are inclined to look more favourably upon the possibilities." Famine prices would not, after all, prevail, "and Durban firms are perfectly willing to back their belief in this by booking orders for maize to be delivered in June July at something under 11 shillings". Simultaneously, the price started dropping, as speculators hastened to sell their grain. By early March, the maize market at Durban was reported to be "very weak with very few buyers. There has been a large amount on offer during last week, but very little business has been done. This state of affairs is said to be due to the very favourable crop reports." The speculators had overplayed their hand, had held on too long, and had been caught by favourable crop forecasts which caused the price to fall as exporters started entering contracts for future delivery from storekeepers and farmers. But, contrary to expectations and forecasts, the crop was indeed a poor one. By late September, the market was feeling the squeeze; at Durban the price had risen to above European prices, making further export contracts unprofitable. Holders of maize were "asking a price which prevents big business going through. A few hundred here and there change hands at figures much above what was anticipated for this time of year." The rush to enter contracts for export and the consequent depletion of internal supplies had once again proved disastrous. By mid-December, the Durban price had reached £1 per bag. A firm of produce-brokers in that town could not recall "any year in which mealies have risen 10 shillings a bag during the months of September, October and November". (8)

The overestimation of the crop, the selling of futures contracts overseas in excess of what the yield warranted, and consequent over-exportation, could also result in South African maize being re-exported from Europe to South Africa at a considerable profit to the European importers. This happened in 1905, and again in 1912. In October 1912, for example, a firm sent from Durban to Antwerp a shipment of 10,000 bags, which was sold for 12/6 per bag. No sooner had the sale been concluded than the chronic shortage and high price inside South Africa induced the Antwerp buyers to reconsign the entire cargo back to its port of origin without even offloading it. Thus, by the end of November 1912, it was back in Durban, where it was sold at 16/6 per bag. All in all, 28,000 bags of South African maize were reimported through Durban alone. (9)

By the end of January 1913, white flat maize was selling in Durban for 24/6 despite these reimportations. This shortage was at least partly due, inevitably, to the activities of the speculators. It had become clear that "fairly large stocks of mealies are being held, for it is impossible to account for the disappearance of last season's crop". (10) Nevertheless, large-scale importation from the Argentine caused a considerable easing in the market by mid-March, which meant that speculators were "obliged to retire from the arena". The significance of the marketing year 1912-13 was summed up by a correspondent. If reliable statistics of yields had been available, "we should not be in the ridiculous position of exporting mealies at 8 to 10 shillings per muid and importing the same mealies at an advance of nearly 100%". (11)

Inevitably in such years, an agitation went up for the suspension of customs duties and preferential rail rates in order to facilitate the importation of maize once the internal supplies started dwindling and prices rising. It is revealing as to the influence of speculators that when, in November 1912, there was a real possibility of the government acceding to such solicitations, the prospect of cheaper imports frightened speculators to the tune of a drop in the maize price of a shilling. Within a few days of General Botha announcing that no suspension of the tariff was envisaged, the price rose again by 9d.

The phenomenon of over-exportation was not only due to overestimation of the crop and excessive speculation overseas by exporters in advance of harvest. The major anomaly of export subsidization was that it became relatively cheaper and more profitable to export maize overseas than to rail it to consuming centres within South Africa. The cost of internal transport retarded distribution of produce from producing to non-producing regions. It seemed to many at the time unsatisfactory that, while shiploads of maize were being sent to Europe, cargoes were being imported into South Africa from South America to supply the non-producing parts of the Cape. This situation was the result of high inland rail rates, combined with the cheap export rate introduced precisely in order to secure a viable and profitable market for the farmer. It was much cheaper to send maize to, say, Port Elizabeth for export than to send it there for local consumption. Maize from the Free State would be sent to Durban by rail, and then by steamer to Cape Town, where it was distributed to inland areas where demand existed. This roundabout journey was cheaper than rail transport overland. The result was that maize cost more in the Cape than it did in Europe - 15 or 16 shillings a bag. It was also an expensive undertaking to transport, for example, maize from an arable district to a pastoral one where it could be fed to stock. Thus, the rating structure "led to the unsound position under which South Africa exported its maize oversea and purchased it back, at high figures, in the shape of bacon, ham, butter, cheese and meat". (12)

Thus, the initial euphoria induced by officials and merchants alike over the exciting potential of export markets for maize was not universal, and a backlash eventually set in. It was the severe drought of 1912, with its devastating effects on the stock population, that most dramatically inspired a reappraisal of the invariable beneficence of maize exportation. In that year it was quite common for farmers to sell their maize at harvest-time for ten shillings, and to buy it back again for 15 shillings in October as the drought made itself felt. A correspondent in the Farmers' Advocate in December 1912 was speaking for many when he wondered "why the exportation of grain is not made positively illegal in view of the pitiable shortage which has overtaken us ... Instead of which our farmers are offered every facility to cart our

grain out of the country". (13) And, indeed, given the necessary capital and infrastructural resources, the return the farmer might get if he were in a position to concentrate to a greater extent on using maize as a stock-feed, and producing meat and dairy products for internal (and external) markets, was considerably greater than he got from exporting his crop.

As we have seen, the high internal railway rates, coupled with the low export rates, were in part responsible for the neglect of these considerations and the over-emphasis on exportation. Crucial in correcting the imbalance was the freight reduction of October 1911, when it was laid down that a maximum flat rate for the carriage of South African grain and forage was to operate between any two stations of the South African Railways. As an example of the effect the reduction had: at Graaff-Reinet in the Cape Province maize was fetching 15/- a bag before the new flat rate was introduced; as a result of the new rate, a Highveld farmer was able to send 1,000 bags from his farm direct to Graaff-Reinet by rail, instead of shipping the cargo to Cape Town first, as had previously been the case, and the price of a bag in Graaff-Reinet immediately fell to 12 shillings, while the farmer made a better profit on his produce. Thus both producer and consumer benefited substantially. (14)

The new rates promised to open up large and previously inaccessible internal markets for the South African producer. The greatest structural obstacles to more capitalized farming could be eased only by the readier and cheaper access to railway transport. In particular, the new flat rate of 1911 would assist farmers in supplying internal markets with animal products, since only by the easy distribution of stock-feed and forage crops, especially maize, could supplies of cream to dairies and fatstock to butchers be maintained throughout the year, and not only at favourable seasons. Once it had become as economical for a maize farmer to send his maize to a non-arable district as it was to send it to Durban for export, a major obstacle to the progress of pastoral production had been removed.

As a result of a number of such new factors 1913 is another year which would repay investigation, for it illuminated how the variables in the marketing system could operate in a different way. Because of the experiences of previous years, farmers in that year held back their crops from the market in unprecedented numbers, partly to guard against drought but also in the hope that they would benefit by a rise in price. In 1913, too, the crop was unexpectedly large in comparison with expectations. The underestimate of the total crop - contrary to the consistent overestimation of previous seasons - led farmers and traders to believe that the price would rise rapidly, and they would gain by holding back awhile.

The effect of the reluctance to sell was that the internal price remained firm in the months immediately after harvest. This meant that exportation was not as profitable to coastal wholesalers in 1913 as it normally had been. The general disillusionment with maize exportation owing to the effects of drought, cheaper distribution within South Africa, the consequences of over-exportation in previous years, and the relatively high internal prices ruling: together these factors put a damper on the export trade. Towards the end of 1913, however, when holders started selling, and the extent of the crop became apparent, the price suddenly dropped. This in turn belatedly provoked an export drive, for the drop in the internal price meant healthy profits for exporters. However, by the time holders of maize generally started selling, it was in many cases too late, for the maize had deteriorated badly in quality. This was inevitable when those without adequate storage facilities tried to speculate by holding grain back from the market. (15)

But there was surely another new factor in play here. The capacity of farmers and inland produce dealers to hold back grain probably demonstrated a rapid breaking-down of the barter and credit system, much greater liquidity and working capital in agrarian communities, and greater access to credit, in the post-Union years. This was particularly the case in arable districts opened up by railways, and was evidenced by the startling advance in land prices.

The experience of 1920 demonstrates clearly the farmer's greater freedom from the illiquidity trap. Again, as in 1913, crop forecasts fell far short of the actual yield, and the consequences were similar to those of 1913. In 1920, farmers' determination to hold back in anticipation of sharply rising prices led to meetings in the maize districts at which selling prices of between 25 and 30 shillings per bag were agreed to, and farmers undertook to refrain from selling until such price levels had been reached. However, the merchants then turned to Rhodesia, and met local demand by importing about 700,000 bags from north of the Limpopo. Inevitably, the price of maize rapidly declined when the extent of the crop became apparent, and the bulk of the crop was sold at practically half the figure which could have been obtained in the earlier part of the marketing season. This pattern is reflected in the export figures: of 2,689,142 bags of maize and maize meal exported in 1920-21, 2,171,912 bags were shipped from January to June 1921. (16)

Undoubtedly, the introduction of the elevator system in the mid-1920s revolutionized maize marketing. It provided for bulk handling, sorting and grading at depots in the maize districts themselves; eliminated the small trader; reduced the risk of deterioration of quality in storage; and greatly facilitated transportation. Thus much of the risk and uncertainty involved in the marketing of grain was eliminated. So, what we have been looking at is essentially a system in transition - the unfettered competitive stage in the emergence of a capitalist agriculture.

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Notes

- (1) It should be remembered that maize is harvested from May to July. Prices of maize refer to muid bags of 203 lbs.
- (2) CS 361/4/08, residents of Frankfort to Colonial Secretary, Bloemfontein, n.d.
- (3) "Government Granaries", Farmers' Weekly, 19 February 1913, p. 2086.
- (4) CS 1871/1/09, Deneys Reitz to Colonial Secretary, 7 October 1909.
- (5) See S. H. Frankel, Co-operation and Competition in the Marketing of Maize in South Africa (London, 1926), pp. 45-6.
- (6) Annual Report of the ORC Department of Agriculture, 1908-9, pp. 28-9.
- (7) Editorials, The Friend, 24 November 1908, 5 December 1908, 31 December 1908.
- (8) See the regular columns, "Produce and Livestock Markets" and "Our Natal Letter", Farmers' Weekly, 1912 and 1913.
- (9) "The Drought", The Friend, 6 November 1912.
- (10) "The Mealie Market", Farmers' Advocate, January 1913, p. 243.
- (11) "Agricultural Statistics", Farmers' Weekly, 31 December 1912, p. 1415.
- (12) Editorial, The Friend, 18 September 1911.
- (13) "Illegal Exportation", Farmers' Advocate, December 1912, p. 199.
- (14) Editorial, The Friend, 18 September 1911.
- (15) Report of the Chief Inspector of Grain, Annual Report of the Department of Agriculture, 1913-14, p. 281.
- (16) Ibid., 1920-21, UG 8-1922, p. 233.