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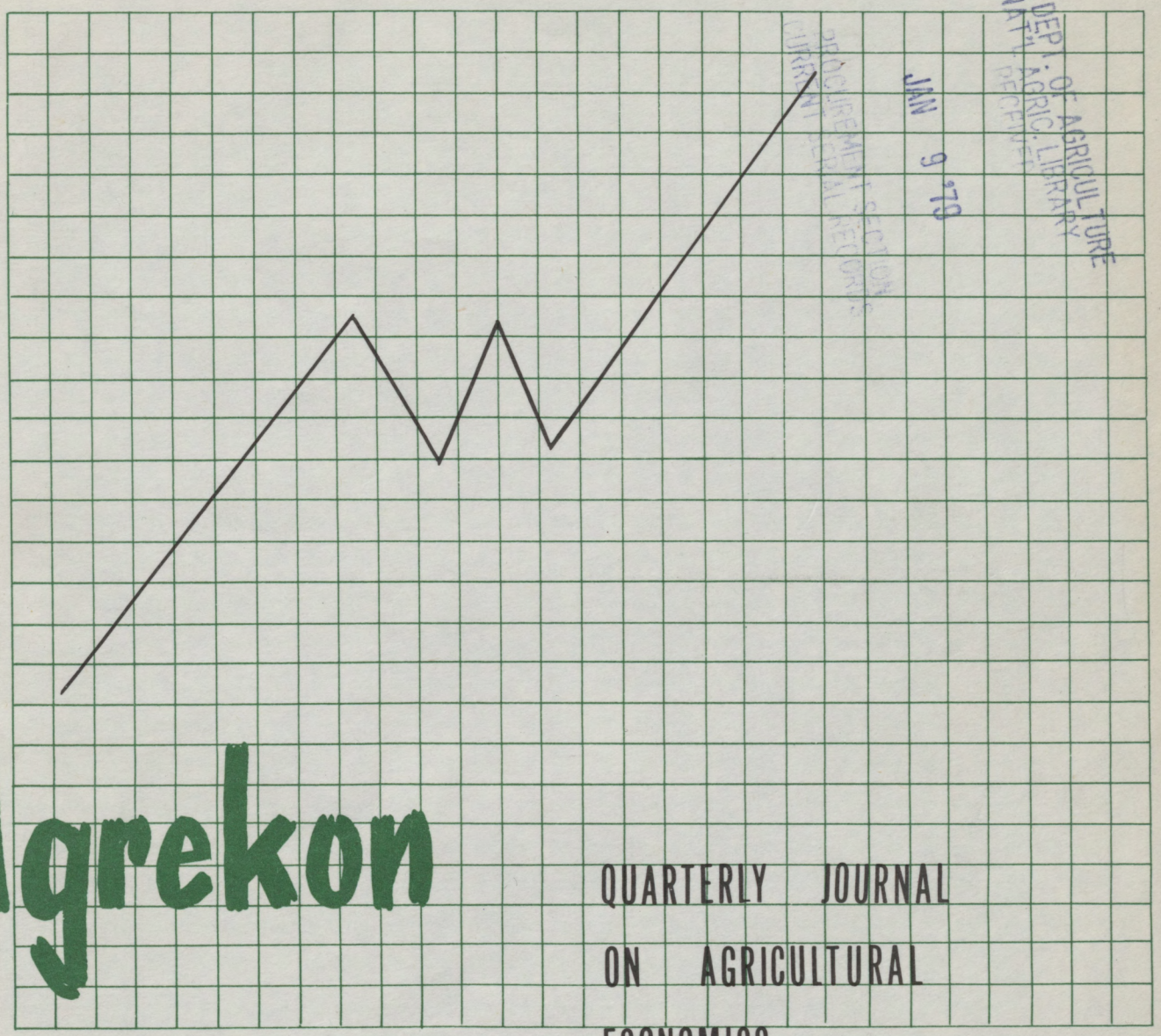

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THE FARM MANAGEMENT THEME

by

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Although this is the sixteenth Conference of our Association this is the first time that we have chosen farm management as the theme. We have had papers considering various facets of farm management which have constituted small parts of particular conferences, yet we have missed out on this basic part of the agricultural discipline as a general topic.

Historically farm management has been at the heart of agricultural economics which is itself an integrated discipline combining business management, economic theory and accounting, and closely related to marketing, agricultural price analysis, agricultural finance and policy. All these sub-disciplines require the factual knowledge of the agricultural processes of the farm in the total science of agricultural economics.

Looking back to the work of pioneers in the agricultural economics thought, it is clear that they had close association with the management of particular farms. Joosep Nõu (1967) in his work "The development of agricultural economics in Europe", has this to say: "One may say that the physiocrats introduced into agricultural economics the theory of capitalist enterprise. Thus agricultural economics arose during the physiocratic period (1750 - 1775) on the micro-economic plane as a theory of capitalistic enterprise, and on the macro-economic plane as a theory of private capitalism for a predominantly agrarian society. Quesnay's theory of capitalist enterprise and of the capitalistic organisation of society was in this connection a generalisation from observations in practical economic life. Thus this theory was not a product of abstract thought alone, but of abstract thought combined with a systematic analysis of practical experience in agriculture".

Associated with the physiocrats was Turgot, and Nõu concludes that "it may be pointed out that Turgot's law of first increasing and then decreasing return in agriculture, formulated in the 1760's, marks the starting point of a development over almost 200 years of agricultural production theory, which culminated during the 1950's in an investigation of production functions on a massive scale".

Quesnay extended his farm calculations to make estimates of the extent to which the national income of France could be raised by means of an improved agriculture. He thus showed the possibilities of the wider application of knowledge of the farm business, the extension of farm management data for the use of general policy.

Early writers in agricultural economics did not develop a science of farm management but they developed ideas and concepts that were used as tools in the subject. The surveys of Arthur Young (1740-1820) in England emphasized the differences that existed between farms and how improved farming practices could be spread from personal observations and his writings. His written works covered from 30 to 40 thousand printed pages about a third of which were in books.

Quesnay and Von Thünen gave their analyses exact foundation with the aid of mathematics. Young on the other hand was broadly descriptive in his writings. These thinkers were succeeded by others of whom two of the most outstanding were Aereboe and Brinkmann, and their works bring us to the present century. Both writers relied heavily on deductive reasoning to reach their conclusions although they did not ignore the inductive method of research. Brinkmann was opposed to "methodological absolutism": "Everyone who makes an inductive agricultural economic study must post-check deductively. Everybody proceeding in the opposite direction must verify his contributions by induction. If no medium of controls is available, both methods will fail ... Induction gives research a dependable foundation, while deduction imparts to it perspective and guidelines. The first is a practice field for science, the second a masterpiece".

Followers of Von Thünen also introduced socio-ethical and socio-reformatory lines of thought into their works. Thus Settegast (1819-1908), also a German, for the first time placed the problem of peasant farming and the peasantry within the purview of agricultural economics, alongside large-scale farming. Farm workers should be given opportunities to become entrepreneurs (tenant farmers and small holders). The farm business consists not only of the entrepreneur but also of other human beings, who should be treated not as "things" but as "people".

Aereboe was in favour of training manpower on a broad basis aiming to replace the ragged proletariat by an educated proletariat. Through private enterprise, ability, as expressed in power of initiative, mobility and the creative spirit must be

allowed to assert itself. His agrarian-political ideas favoured the small farm which in the 1920's he saw as a pressing social need in Germany. He revealed some dualism in this thinking because his doctrines were concerned with the capitalistic large-scale estates, and his agrarian-political ideas focused on peasant farms.

This little outline has focused on the European contributors to agricultural economics. They illustrate the theme, although they are less well known to us than the great names on the American scene where, among many, three have been outstanding, G.F. Warren, J.D. Black and E.O. Heady.

In South Africa farm management has been a late starter. Economic studies of farming began after the first World War. E.F. Parish, an agronomist, who was then principal of the school of agriculture at Glen, determined the cost of growing maize, and S.J.J. de Swardt did the first farm survey on irrigation plots near Potchefstroom, revealing a high degree of poverty amongst these particular farmers (Behrmann, 1964). Survey work up to the second World War was concerned with gaining information on the economic conditions in particular branches of farming. The farm management applications of this work were incidental, for co-operating farmers in some cases were shown their own results, in comparison with the average results of all the participants in the survey. There was virtually no extension follow-up.

After the war O.E. Burger had a number of farmers keeping records in various parts of the country, and co-operating farmers were regularly supplied with their results, but this work was on a limited scale. Survey work continued, notably in the completion of the agro-economic survey which had been started before the war, and in extensive surveys, mainly for cost of production purposes in the maize and wheat growing areas.

Farm record-keeping expanded with the publication of S.P. van Wyk's record book. In the early sixties when the first study groups were formed, the universities, notably Natal, Orange Free State and Stellenbosch began to interest themselves in farm business recording. This has today expanded into the country-wide system administered by the Division of Agricultural Production Economics.

The study group work has been of considerable benefit to co-operating farmers and some of them have been able to effect spectacular increases in their net incomes. Economists and extension officers have collaborated closely. The average real net incomes of study group farmers in East Griqualand, for example, doubled from about R5 000 to R10 000 from 1964 to 1974, or about 80 per cent on a per hectare basis, as the average farm increased in area.

While success has been achieved through study groups and postal records, these co-operating farmers constitute only a small percentage of the total number of farmers in South Africa. Moreover, the farmers concerned are usually more receptive to new ideas and to the application of business economics to farming than the general run of farmers. Farmers are essentially individualistic and some are successful without any collaboration or lead from organized groups. Others struggle to make a living and are not agreeable to accept farm business guidelines.

Demands on our agriculture will be great between now and the turn of the century because the population is expected to double from 25 million to over 50 million. The number of White owned farms declined from 106 000 in 1960 to 77 000 in 1975, nearly 2 000 per year. Output per farm has been going up, and although there has been a decline in the number of labourers, the number of labourers employed per farm has been increasing.

Only a relatively small number of farmers account for the greater part of the total output. For example the quartile of larger farmers ranked according to total income in a sample of 92 farms in a survey done by the Division of Agricultural Production Economics in 1975 on the Eastern Highveld, accounted for 49 per cent of the total income of all the farms (Behrmann, 1977). If farmers in South Africa produced at the scale of the average total income of this group total agricultural output could have been produced by 28 000 farmers. Would such a situation be socially desirable?

The relative prosperity of a minority of our farmers is offset by the presence of rural poverty as revealed in the report of the Committee of Enquiry into Rural Reform (1977). Poverty is most prevalent in districts of the Southern Cape, Cape Midlands, South-Western Orange Free State and North-Eastern Highveld of the Transvaal. Figures from the 1970 population census showed that 70 to 90 per cent of white rural family incomes in 49 districts lay below the median incomes of all White families. To what extent will the science and application of farm management be able to help these people?

A final point about farm management in South Africa is that the subject encounters institutional constraints which may inhibit the most advantageous allocation of the factors of production. White-owned land is the exclusive property of the Whites. Farms tend to be large and land values are high. The movement of labourers is controlled and they do not have access to land and capital markets, if they themselves wish to embark upon independent farming.

Tarr (1975) has shown from an input-output model that the farming sector is running into a shortage of skilled, mainly White, agricultural labour and generating a surplus of unskilled, mainly Black labour. The strong possibility of the underemployment of unskilled workers has been confirmed in an independent study by Knight (1977).

On the positive side the formal training of farm labour has now got under way at two institutions, one in the Western Cape and one in the Transvaal. The educational facilities for the

children of farm workers are rudimentary but improving.

Market forces may yet dictate that certain constraints be removed to enable the agricultural sector to meet the challenges of the future. There is a need to reconcile the dualism that prevails between the large-scale farms and peasant subsistence farming, quite apart from the presence of a landless proletariat of labourers.

Our Conference is concerned with the various facets outlined above. It can only contribute to the shedding of more light on to them and to get us all thinking.

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