BOOK NOTES

Marketing of Agricultural Products, Richard L. Kohls. New York: The Macmillan Company, 1955. Pp. xiii, 399, $5.25.

In a preface to this book Kohls remarks that "no explanation is needed for the addition of another book to the field of the study of agricultural marketing". This statement calls for some qualification for the number of American publications on the subject of marketing has become large enough to justify the requirement that at least some of them should break new ground.

The problems of marketing agricultural commodities has attracted the attention of the United States Government for a century or more but active support for market research has fluctuated widely. Not unnaturally, official interest has been greatest in periods of crisis or incipient crisis in agricultural industries e.g., in periods of excessive production or price decline. On these occasions Congress has usually voted funds for research into marketing problems. The Purnell Act, 1925, for example, gave much stimulus to research work in the field of marketing. Similarly, the Research and Marketing Act of 1946, made substantial increases in the funds available for market research projects. Within five years of the passage of that Act annual expenditure by the USDA for marketing research rose to $6 million, i.e., about 12 per cent of the total research budget of $45¼ million. In 1946 market research had received only 5 per cent of the total research budget of $25 million. Few agricultural economists elsewhere can view without envy the resources available to American groups for projects in market research.

With so much research activity in the background the reviewer naturally tends to examine a book like *Marketing Agricultural Products* to see how much the author has been influenced by that research work. Perhaps the most striking evidence of influence is of an indirect nature in that Kohls draws extensively upon information published by the USDA in the form of graphs and tables of statistics. Most contemporary American authors pay similar tribute to the excellent work of the USDA.

The book is presented in three parts. "The Framework of the Marketing Problem" is described in Part I where the initial definitions of problems and methods is undertaken. The broad fields of consumption, production and marketing cost each receive general attention.

In Part II the author discusses "Some Functional Problems" with specific reference to such topics as price determination, government programmes, grading, collection of market information, transportation, storage and market risk. The most interesting chapters in this section for the Australian reader are those dealing with prices, government programmes and the collection of market information. This Part also provides a simple exposition of some of the analytical problems involved in market research and should be very useful for students.

"Commodity and Institutional Problems" is the title of Part III where each of the major products, and its marketing processes, is discussed in detail. In addition there are chapters on agricultural co-operatives, the role of the government in marketing, the food processing industries and the wholesaling and retailing of food.

There is a heavy emphasis upon the description of marketing processes and problems with only slight treatment given to the more analytical aspects of research work in this field. Overall, however, it constitutes a comprehensive and readable textbook for students.

The neglect of methodology has been a noticeable feature of most marketing textbooks emanating from the United States in recent years. Doubtless this is due to the fact that a detailed description of institutions and commodities has been considered the most appropriate course of reading for college students.

In the past three decades many projects in market research have been carried out by the USDA and various state agricultural experiment stations. During this period research procedures were improved and the whole framework of methodology was subjected to searching examination. The work of appraisal and formulation was given systematic expression in the various bulletins issued by the Social Science Research Council. Two bulletins issued under the editorship of John D. Black deserve particular mention in this context, viz., *Research in Prices of Farm Products,* (June, 1933) and *Research in Marketing of Farm Products,* (December, 1932). It seems desirable that textbooks should give more attention to these aspects of market research.

In the case of the book under review, however, it is necessary to recognise that Kohls is writing mainly for the student at the elementary level and it is readily conceded that *Marketing Agricultural Products* can take its place among the best publications in this category.

So Bold An Aim, P. Lamartine Yates. Rome: Food and Agriculture Organization of the United Nations, 1955. Pp. 174, 9s. 6d. (Aust.).

Sub-titled "Ten Years of International Co-operation Toward Freedom from Want", this short book is one of several publications issued on the occasion of FAO's tenth anniversary in October, 1955.

"This book sets out to describe the ideas and events which caused FAO to come into existence and those which since its birth have moulded the activities of the Organization into their present shape." The author has not attempted to provide a detailed, documented history of the establishment, development and achievements of FAO, rather has he provided a lucid interpretation of the broad trends in international co-operation, of the changing climate of opinion and of the ideals which led to the establishment of FAO and which have fashioned its development and its work during its first decade.

Other publications have dealt in detail with the events that lead to the formation of FAO in 1945, with the organisation's work and with the progress that has been made in the field of nutrition and in the production and distribution of food and fibres during the last ten years.[1]

The author was a member of FAO's staff from its inception until 1951, when he joined the United Kingdom Colonial Development Corporation. Mr. Yates has thereby had particular opportunities to appraise FAO's development and achievements and, although the book was commissioned by the Director-General and published by FAO, the author does not hesitate to criticise both the organisation itself and the attitude of member governments to it when he feels such criticism is justified.

Almost one-third of the book is devoted to a discussion of the ideas and the events which led up to the establishment of FAO in 1945. "International agencies have come into existence to meet specific requirements of the present age."

In tracing the developments which led to the successful establishment of FAO the author goes back to the nineteenth century when the idea of government intervention in and aid to agriculture was first widely accepted. The first attempts at international collaboration in agriculture began in the latter half of the nineteenth century and achieved some real progress with the establishment of the International Institute of Agriculture (IIA) in Rome in 1905. However, although the IIA performed much useful work, mainly in disseminating information, in the pre-war period, its scope and functions were very restricted by comparison with those of FAO. Yates suggests that the emergence of "welfare" thinking during the 'twenties and 'thirties in Europe, Australasia and the United States and the growth of nutrition as a science during the 'thirties, set the stage for the establishment of an international organisation such as FAO but, he claims, it was only the war and two factors which arose out of the war which finally provided a suitable climate of international opinion to enable FAO, the first of the specialised agencies of the United Nations, to be established. The two special factors referred to were the experience gained in international co-operation in the distribution of foodstuffs during the war and, as a result of the spectacular development in farming techniques, especially in the United States, "the passionate conviction that science has now made it possible to transform the oldest and slowest human occupations".

In the remainder of the book the author deals with the various factors which influenced the formative years of FAO, with Sir John Boyd Orr's attempt to establish a World Food Board of which he says "as a practical proposal it was a non-starter, as a platform for ventilating the heartfelt ideas of many governments, mainly the smaller and poorer ones, it was invaluable", with FAO's Intelligence Service and with the Expanded Technical Assistance Programme (ETAP).

[1] Notably Gove Hambidge, *The Story of FAO* (New York: D. Van Nostrand Company, 1955) and *The State of Food and Agriculture*, 1955 (Rome: Food and Agriculture Organization of the United Nations, 1955).

The chapter on "Technical Activities" in which the latter programme is dealt with provides a particularly useful exposition of the objectives and methods of the ETAP and of the ideas behind it.

The book is very readable and it should prove stimulating to all those who are interested in international collaboration, particularly in the field of agriculture.

A Statistical Study of Livestock Production and Marketing, Clifford Hildreth and F. G. Jarrett. New York: John Wiley & Sons, 1954. Pp. xiii, 156. $4.50.

This study, Monograph No. 15 of the Cowles Commission for Research in Economics, presents an attempt to estimate and test by several alternative procedures the economic relations underlying the operation of the United States livestock market. Of interest is the fact that one of the authors, F. G. Jarrett, is an Australian.

The book's main value is in its exceedingly clear presentation of methodology. So far as this, together with the application and testing of alternative techniques, was the main aim of the authors, they have succeeded. With L. R. Klein[1] they have also in an exploratory fashion answered the criticism often levelled at the Cowles Commission (and sometimes at econometricians in general) that more attention should be given to the practical application of existing techniques rather than to further broadening the gap between literary and mathematical economists.

The study is an aggregate one of the livestock industry. Aggregation was necessitated by the belief that livestock products in the United States are so interrelated in both supply and demand that a study of an individual commodity would have to have considered other products also. For such an analysis resources were not available nor would difficulties have been minimised. Aggregation, however, as the authors realise, does not enhance the usefulness of results in the practical situation. A forecast that aggregate livestock production and prices will move so much in the coming year is only of limited use to a milk producer.

The data used relates to the years from 1920 to 1949. For the period up to 1947 an exceedingly good predictive relationship was obtained. For later years, including tests outside the period analysed, predictions of price and quantity were not so satisfactory. Whilst disappointing in itself, this indicates that a change in the demand for some or all livestock products may have occurred in the post-war period. Working knowledge of the economy supports this hypothesis—for instance the greatly increased use of margarine and detergents should have affected demand for fats from milk and pigs. Future work should consider individual products and perhaps use cross-sectional data.

[1] Cowles Commission Monograph No. 11, *Economic Fluctuations in the United States,* 1921-1941. (New York: John Wiley & Sons, 1950.)

In any econometric study of a practical nature three main steps are involved. Firstly an economic model must be formulated for which empirical data has then to be obtained. The third step is to decide on a statistical model. The difference between an economic and a statistical model is that the former says A depends on B and C, which assumptions can be argued on the grounds of economic theory and practicality whilst the statistical model specifies the algebraic form of the relation between A, B and C and the effects of unobserved influences. Determination of the best statistical model is largely a matter of trial and error. Economic theory usually cannot provide grounds for preferring one algebraic form to another.

By a separation of clear exposition of these three steps the authors have made their book rather easier to read than the usual econometric study and have given it value as an introduction to such work. For a beginner their first four chapters would do much to clarify and stimulate interest in econometrics. Consider this slightly condensed explanation of their initial economic model.

> "We regard production of livestock products in a given year as primarily determined by the amount of feed fed to livestock in that year and the number of animals on farms at the beginning of the year. . . . The net effect of (breed and feeding practice) improvements could be allowed for by introducing time into this production relation.
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> The quantity of feed fed is approximately equal to the quantity produced (which being) determined primarily by the weather is determined outside the set of relations being considered. The number of animals on hand at the beginning of a year will depend on past prices of livestock, past prices of feeds and other factors affecting producers' (livestock) expectations.
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> The price of livestock products depends on quantity produced and on such demand factors as population, consumer incomes, and prices of related commodities. . . . It would also seem reasonable that the price of feed should also be influenced by the quantity of feed fed and the number of animals on hand at the beginning of the period." (Page 9.)

Each of the variables mentioned can be designated by a symbol and the relationships, of which there are four, enumerated in symbolic form. Thus if:

p_t = price of livestock products (in the tth time period);
l_t = quantity of livestock products produced during period (assumed equal to quantity sold);
y_t = consumer income;
n_t = population;
r_t = index of other prices;

then the relationship expressing the demand for livestock products can be written:

$$p_t : l_t, y_t, n_t, r_t,$$

which can be read as: the price of livestock products depends on the quantity of livestock products produced, consumer income, population and the level of other prices, all being measured in the same time period.

The final economic model, involving eight relations, is rather more specific, account being taken of such factors as differences between feed fed and feed supply, various types of feed and the price of farm labour. The final model also differs from the initial one in that the relations are of the type: A and B appear in a relation with B and C, the former variables being endogenous and the latter exogenous. If E and F also appear with C then a change in C will influence A, B, E and F simultaneously. If least-squares are used to solve such a system, the appropriate statistical model having been decided upon, then these simultaneous relationships must be ignored and one variable designated as being dependent on the others, as in the initial model. Alternatively the technique for solving simultaneous equations, involving much more computational work and the problem of identification (well explained by the authors) may be used. Having decided on their main statistical model—that the relations are linear in the logarithms of the observed variables with the exception of time—the authors have derived both least-squares and simultaneous solutions. On the whole both methods gave rather similar results, further supporting Wold's contention that least-squares is as good as the simultaneous method.[2]

Whilst statistics were already available for most of the 18 variables used in the final model, they usually related to specific sectors of the livestock industry. Aggregation and in some cases weighting was necessary. The problems encountered and the checks devised are presented rather fully by Hildreth and Jarrett. Although making dull reading this section contributes greatly to an understanding of the problems involved in making maximum use of what data is available.

Because of the incompetence of the present reviewer in the higher realms of econometrics a critical review cannot be given. Praise, however, is not excluded although it must be confined to the lucid exposition of the material involved. The only exception is the latter half of Chapter VI which formulates an abstract theoretical model of an individual producer's decision-making in attempting to maximise his preference function, for instance, in deciding whether to sell stock currently or hold them back for breeding in response to a rise in price. The abstruseness of this theoretical digression is, however, more than compensated for by the inclusion of an appendix in which is carried through both the least-squares and simultaneous methods for solving one of the relationships in the model. With a modicum of assistance from the references cited in this appendix the method could be followed in mechanical fashion.

[2] See Herman Wold, "Causality and Econometrics", *Econometrica,* Vol. 22, No. 2 (April, 1954) p. 162 and the subsequent comment and reply in the same journal, Vol. 23, No. 2 (April, 1955) pp. 193-197; also H. Wold, *Demand Analysis.* (New York: John Wiley, 1953).