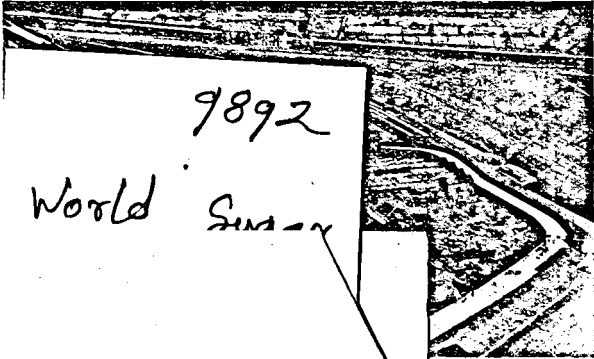


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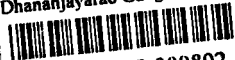
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WORLD SUGAR PRODUCTION & CONSUMPTION

AN ECONOMIC-GEOGRAPHICAL STUDY

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BY

C. J. ROBERTSON,
B.Sc., M.A., Ph.D

WITH A FOREWORD BY
NOEL DEERR

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FOREWORD.

WHILE there are numerous books available dealing with the technicalities of the manufacture of sugar, there are few which are concerned with the economics of its production. This is so much so that it has become a matter of routine to design a factory to operate on so many hundreds or thousands of tons of raw material per day. This alone will not ensure success to any projected scheme; a study of the economics, including therein such matters as labour supply, access to markets and utilization of natural facilities, are of equal or even of more importance.

These matters are discussed in this book and the method of their presentation leaves little to be desired. The effect of climate, density of population, tariffs, the relationship of research to industry and many other controlling factors are all considered in detail. Though addressed, in the first instance, to the economist, there is much of interest to the producer also.

NOEL DEERE.

PREFACE.

EXHAUSTIVE treatises on the technical aspects of sugar production have been written, dealing with cane or beet agriculture, with the factory processes in the production of raw sugar from cane or beet and with sugar refining. A book giving a comprehensive survey of the world's production of sugar from both cane and beet and with emphasis on the economic-geographical aspects has, however, been lacking. The author's realization of this need arose from his experience when lecturer on the Sugar Trade at the City of London College. With the growing interest in specialized training for commerce the desirability of concise but thorough treatment of the various commodities from the economic-geographical point of view has become more apparent. The present volume aims at meeting this need in the case of sugar. It is hoped, however, that it will prove useful to a wider public than that directly interested in commercial education.

Whether open competition or regulatory planning is predominant, the relative advantages of the various sources of supply and the factors determining present and future consumption of the commodity remain of fundamental interest to all directly concerned with sugar, as growers of cane or beet, as producers of the raw or refined article, as brokers or as large consumers. Sugar, too, has long been to an exceptional degree a commodity of political interest and, though its rivals in this respect have in recent years increased rapidly in numbers, retains amongst them all a prominent position in the news of the day. While no attempt has been made in the following pages to discuss the national and international schemes for the regulation of the market, it is hoped that an adequate factual basis has been provided for an understanding of the main issues and that the book may thus be of interest to a circle of readers much wider than that of those directly concerned with the trade.

The attempt to treat the commodity by a method very largely geographical may be of interest to students

of economic geography and will at any rate provide them incidentally with material not elsewhere easily accessible. The author regrets that cost has excluded any cartographical treatment.

The principles on which the matter is arranged will be readily apparent. After chapters devoted to the general conditions of production of cane-sugar and beet-sugar respectively, the principal producing countries or groups are dealt with separately. It will be noted that a political rather than a regional grouping has been considered more useful. Owing to the need for condensation and for avoiding repetition many of the facts relevant to an understanding of the position in individual countries must be sought in the general chapters. Only existing conditions are dealt with, there being no attempt at historical treatment. The chapters on the principal producing areas are followed by a study of the refining industry. The concluding chapters discuss the main factors affecting the demand for sugar and the prospects of world production and consumption. To avoid encumbering the text with statistical material most of this has been relegated to the notes at the end of the chapters and to the appendix.

The material on which the work is based has been drawn from such a vast number of sources, mainly in periodicals and official reports, that it is impossible in a book of this size to indicate these adequately.

The author desires to express his acknowledgments to the Editor of *The Geographical Review*, published by the American Geographical Society at 156th Street, Broadway, New York, for permission to incorporate in this book portions of an article contributed to that journal. Similar acknowledgments are made to the Editor of *Geography* for permission to reprint material that here forms the bulk of Chapter II. Chapter XII and part of Chapter XIII originally appeared in *Facts about Sugar*.

C. J. ROBERTSON.

The International Institute of Agriculture,
Rome.

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APPENDIX.

WORLD SUGAR PRODUCTION.

	<i>Willott and Gray.</i>			<i>Mikusck.</i>		
	Million long tons tel quel			Million metric tons raw		
	Total	Cane	Beet	Total	Cane	Beet
1909-10	14.9	8.3	6.6	15.6	9.0	6.6
1910-11	17.0	8.4	8.6	17.7	9.1	8.6
1911-12	15.9	9.0	6.9	16.8	9.9	6.9
1912-13	18.0	9.0	9.0	19.0	10.1	8.9
1913-14	18.4	9.8	8.6	20.1	11.1	9.0
1914-15	18.5	10.2	8.3	19.5	11.2	8.3
1915-16	16.9	10.6	6.3	18.0	11.9	6.1
1916-17	17.1	11.3	5.8	18.4	12.6	5.8
1917-18	17.4	12.4	5.0	18.7	13.6	5.1
1918-19	15.8	11.9	3.9	17.5	13.1	4.4
1919-20	15.5	12.2	3.3	16.9	13.6	3.3
1920-21	16.6	11.9	4.7	18.4	13.5	4.9
1921-22	17.6	12.7	4.9	19.4	14.3	5.1
1922-23	18.4	13.2	5.2	19.7	14.4	5.3
1923-24	20.3	14.4	5.9	21.5	15.4	6.1
1924-25	24.0	15.9	8.1	25.1	16.8	8.3
1925-26	24.3	16.0	8.3	26.2	17.6	8.6
1926-27	24.1	16.4	7.7	25.0	17.1	7.9
1927-28	26.1	17.1	9.0	26.8	17.7	9.1
1928-29	27.5	18.1	9.4	29.0	19.4	9.6
1929-30	27.4	18.2	9.2	28.3	18.9	9.4
1930-31	28.5	17.2	11.3	29.5	17.6	11.9
1931-32	26.3	17.8	8.5	27.2	18.3	8.9
1932-33	24.3	16.5	7.8	26.3	18.4	7.9

World sugar statistics are very crudely calculated and at the best give only a rough idea of the trend of production over a period of years. It should, for instance, be noted that the total production of India, mainly gur, is included without reduction to terms of sugar in the strict sense.

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WORLD SUGAR CONSUMPTION.

According to Dr. Mikusch, world consumption in the years indicated was as follows in million metric tons, raw sugar value:—

1923-24	21·6	1928-29	27·7
1924-25	23·5	1929-30	26·8
1925-26	24·8	1930-31	26·9
1926-27	25·2	1931-32	26·1
1927-28	26·8	1932-33	26·3

Dr. Mikusch estimates that, in addition, between 150,000 and 200,000 metric tons per annum disappear through loss in transit and in other uncontrolled ways.

UNITS OF MEASURE.

To facilitate comparison with the current estimates published in the official reports of the various countries and in the periodical press, the data in the statistical notes have been given in the original measures.

The following table, compiled from the *Recueil de coefficients et d'équivalences* published by the International Institute of Agriculture, shows the mutual relations of the three principal tons.

	Long ton	Short ton	Metric ton
Metric ton ..	0·98420	1·10230	1·00000
Short ton ..	0·89285	1·00000	0·90718
Long ton ..	1·00000	1·11999	1·01605

1 long ton = 2,240 pounds.

1 short ton = 2,000 pounds.

1 metric ton = 2,205 pounds.

1 cwt.=112 pounds=0·05080 metric ton=0·05600 short ton.

1 hectare = 2·47109 acres; 1 acre = 0·40468 hectare.

BIBLIOGRAPHICAL NOTE.

THE sources of information for the study of the economic and geographical aspects of sugar are scattered in innumerable periodical publications and official reports and in works dealing primarily with other subjects. It would, therefore, be impracticable within small compass to give anything like an adequate list of references or even to indicate the sources of the material utilized in this volume. It may, however, be useful to some readers to indicate here a few of the more recent works of reference dealing with other aspects of sugar. As has been indicated in the preface, the books that have been published concerning sugar deal mainly with the technical side of sugar production. One or two books on certain general aspects that are outside the scope of this volume are also indicated below.

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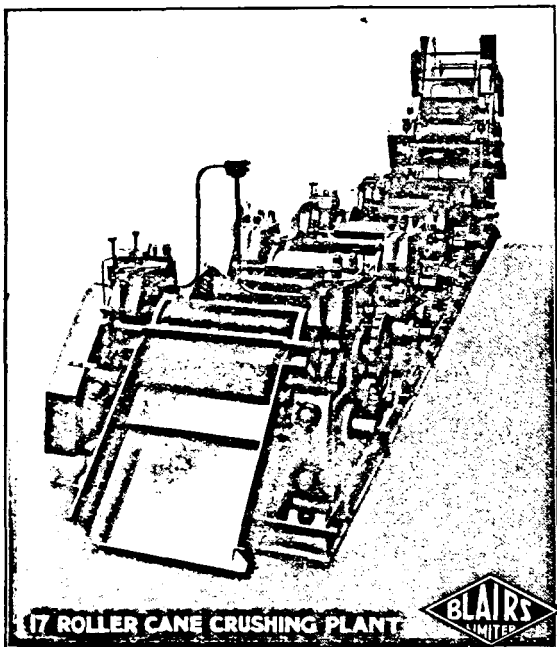
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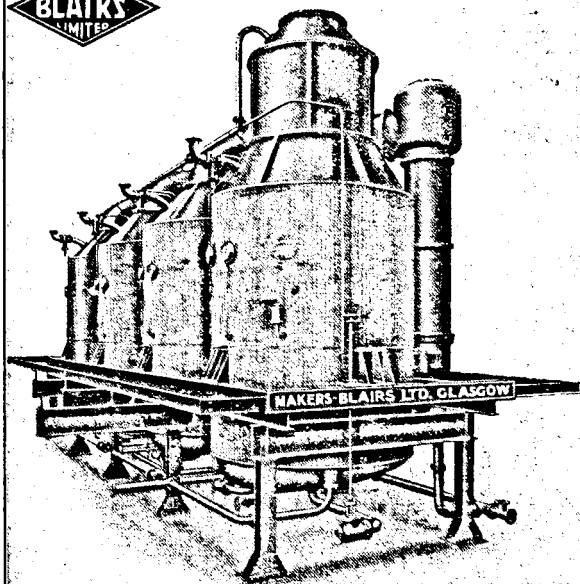
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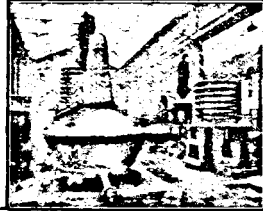
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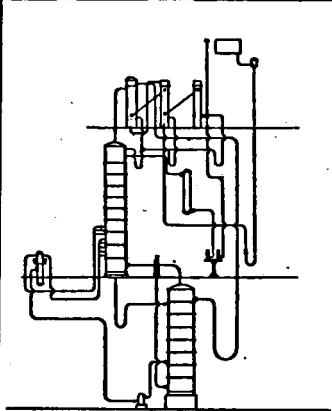
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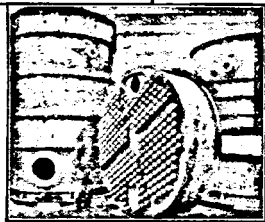
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