

Electricity in Modern Farming

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Foreword

BY

HAROLD WOOLLEY, C.B.E.

President, The National Farmers' Union

In this work Frank Rowland explains the practical application of electricity to almost every form of agriculture. He has provided a clearly indexed textbook which should be of immense value to the industry, and in these days of 'do-it-yourself' Chapter 2 should be read with particular care.

The reader will find that every facet of the use of electricity in agriculture has been covered—from generation and distribution to simple formulae—and this will enable the layman to calculate the cost of operating any particular appliance not listed in Appendix III.

The advantages and disadvantages of various types of equipment are carefully weighed, and should prove of inestimable value to the farmer in reaching a decision as to the most suitable installation for his particular purpose. The extensive bibliography is a measure of the meticulous research undertaken by the author.

The social value of electricity, the amenities it provides for the farmer's wife, family and workers, needs no emphasizing—refrigerators, washing machines, electric irons, vacuum cleaners and television all become possibilities.

In these days when the farmer is continually being exhorted to greater efficiency, and at the same time is faced with a never-ending problem of rising costs and reduction in available man-power, electricity has become one of the dominant factors in farming.

Introduction

This book has been written for all interested in improved methods of farming, including students, advisory officers, and progressive farmers. Although it deals essentially with conditions in the United Kingdom, it should also be of value to readers with an interest in other countries, including those in which agricultural electrification is in its infancy.

Electricity can play an important part in increasing the efficiency of food production. It can help to raise the output of the labour available by releasing men from routine operations in buildings for productive work on the land, and workers can be encouraged to live and work in the country by giving them amenities in their homes and at work which are comparable with those in cities.

Expansion of world food resources is one of the most pressing problems facing mankind. The majority of the human race hardly attains a nutritional subsistence level, and in spite of this, at its present rate of increase the population of the world will double in the next forty years. Increased food production is therefore a vital need if the human race is to survive without a major calamity.

Though large increases in food production have been made in the United Kingdom in recent years, authoritative scientific opinion asserts that by applying existing agricultural knowledge more intensively production of acceptable human food could still be greatly increased. [1]

In some countries over-production and a consequent surplus of various crops occur periodically, and the problem of their disposal can and must be solved by a revolutionary change of outlook in governments and individuals. Surpluses should be accepted as heaven-sent opportunities for helping all humanity, and their disposal presents an opportunity for co-operation on a new level between nations.

Readers in search of more information on topics dealt with in this book may find the references on pages 305-7 useful for further study. Practical assistance and advice, particularly for farmers contemplating the acquisition of new equipment or the improvement of existing methods, may be obtained from the advisory services of the Electricity Boards, the National Agricultural Advisory Service, and the Agricultural Land Service. Manufacturers are also always glad to assist with information about their products.

The pioneers who by their enthusiasm and initiative in the early days made important contributions to rural electrification and the supply and application of electricity to farms should be remembered. Outstanding amongst them were R. Borlase Matthews, S. E. Britton, W. Fennell, and W. A. Turnbull.

FRANK E. ROWLAND

Cambridge
1962

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