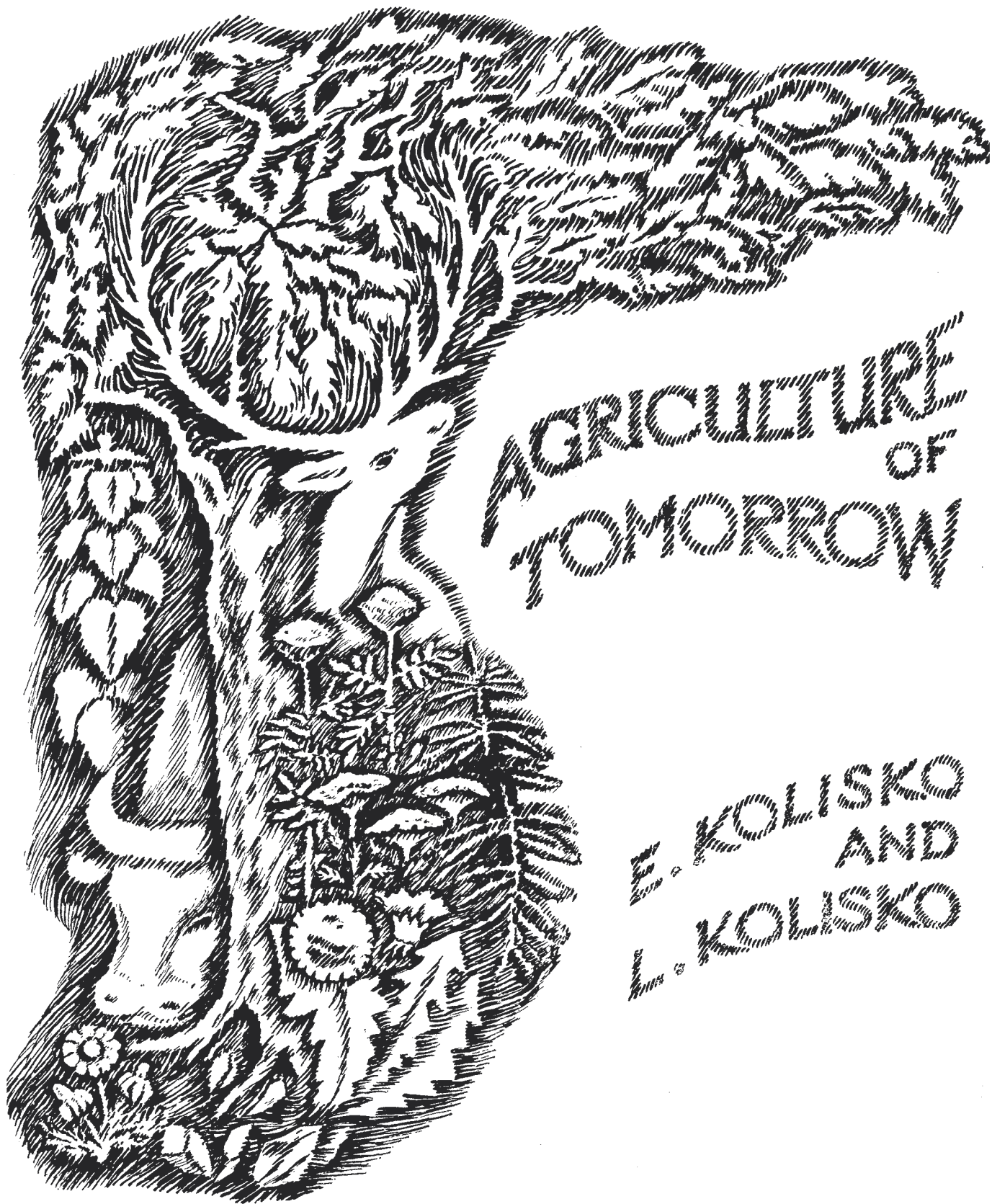


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AGRICULTURE
OF
TOMORROW

E. POLSKO
AND
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PREFACE.

AGRICULTURE OF TO-MORROW.

War found Britain facing the necessity of a new agricultural policy. More food is wanted; there is a need for such measures as intensified food-production, greater crops, the use of every acre of waste land, and the transformation of pastures into cultivated land.

These measures are already in progress, and they will no doubt be carried out with the utmost energy and efficacy throughout the British Empire.

But what about to-morrow? What is the agricultural situation in the world to-day? The war coincides with the greatest crisis in the world's agriculture which has ever threatened mankind.

This threatening position has been disclosed by a series of publications brought out on the eve of hostilities. We should not allow these revelations to be forgotten in the present critical state of justified measures of war. From a large number of such testimonies I select only three most significant voices.

In recent publications by G. V. Jacks and R. O. Whyte, *The Rape of the Earth and A World Survey of Soil Erosion* (Faber & Faber Ltd., London 1939) the following statement is made: "Misapplied science has brought to the world's richest virgin lands a desolation compared with which the ravages of all the wars in history are negligible. New outlooks, new aims and new knowledge will be required before the earth is again fit to rear after long travail another civilisation."

With regard to the situation in the United States, the above-mentioned authors continue: "More striking however, is the statement quoted by Raymond Irving, that at the present rate of soil and water depletion, in fifty years the fertile soil of America will be a fourth of what was present originally, and that in a hundred years at the same rate of depletion the American Continent could turn into the Sahara of the Western Hemisphere."

That such a statement is by no means exaggerated is proved by the fact that the U.S.A. Department of Agriculture issued in 1938 its year book in an entirely different form. It bears the unusual title, *Soils and Men*, and the fore-word is an S.O.S. made by the Secretary of Agriculture, Mr. Henry A. Wallace. To avoid the threatening danger of soil erosion and soil disease, he pleads for a change in the methods hitherto employed.

Last but not least, I want to draw attention to the appeal of C. Alma Baker, C.B.E. the well-known veteran expert on rubber planting. Of this memorandum, published in June 1938, 50,000 copies have been distributed to members of parliaments, ministries, agricultural and health authorities, hospitals, etc., and it demonstrates clearly the necessity for entire new measures for soil preservation and regeneration. "The two systems of agriculture that gave me hope of improving the health of soil, plant, animal and man, came before the public a few years before, in the methods of 'Dynamic Agriculture' and the 'Indore' Process. . . . the theory and practice of the principles of the above two systems of agriculture have impelled me to write this memorandum. I therefore have appealed to all the governments to investigate the influence of manurial substances and systems upon the soil and the nutritional value of its products." So indeed if war compels us to adopt a new agricultural policy, we should make use of the results which have been achieved during the last decades. Let us avoid previous mistakes and provide not only for war but at the same time for the future of mankind.

The recent investigations of both European and American scientists clearly point to the fact that plant growth, crops and animal productivity depend on cosmological influences and vary in well defined cycles. Elsworth Huntingdon has shown the influence of the sunspot period of eleven years on the weather and on the growth of trees. An increasingly large number of modern investigators have verified the connection of the sunspots with temperature, atmospheric pressure, rainfalls, magnetic streams, etc. And again others have demonstrated how these affect harvests, output, and prices.

Already various American and Russian economists are beginning to calculate the economic cycles which result from astronomical and meteorological cyclic influences. It appears as though economy will become part of a new kind of cosmological science.

Whether the Moon influences plant growth may still be a matter of controversy. But is it not a recognised fact that the tides are influenced by the moon, and that certain diseases such as epileptic fits, somnambulism and sleep walking occur more frequently at a certain phase of the moon? Why should such influences not be of universal character? Is not all plant life more or less rhythmic or periodical? And if so, will not our negligence of these connections have a detrimental effect?

Another vast field of knowledge has been opened up through recent investigations into the true nature of the soil. Having gone through the whole literature on this subject, I am astonished to find quite a miraculous agreement among the various scientists on one essential point, namely, that the soil is by no means a mere aggregate of chemical substances, as it was considered to be only a few years ago; it is a living organism.

The soil is not a dead system but is teeming with life" says S. A. Waksman in his authoritative book on Humus (1938). "Organic matter thus supplied the life of the soil in the strictest sense (W. A. Albrecht in the U.S.A. "Agricultural Year Book"). Or, "It may be said that there is no soil without organic matter" (Byers, Kellog, Anderson, in "Formation of the Soil.")

The problems of nutrition, of pure food, and of animal diseases, and also the health of human beings, are inseparably connected with the agricultural problem.

Another scientific epoch in agriculture has already begun. It is to be hoped that new ventures necessitated by the war will be the prelude to large scale scientific use and protection of the soil.

EUGEN KOLISKO.

FOREWORD.

It is a rather strange moment in which to write a book. England has declared war on Germany and nobody knows how long it will last. It is still stranger perhaps, that the book I am about to write originates from the German spirit, the true German spirit which has always been appreciated in the cultivated world.

We are in the midst of destruction ; the powers of war are relentless ; they are destroying the life of man, of whole populations; they are destroying master-pieces of art and cultural life. In such a moment it is imperative to acknowledge the immense need of constructive and regenerative powers.

I want to write therefore about the regeneration of agriculture, which is the basis of the physical existence of men. Without proper food mediating life-forces to the human organism, human beings cannot grow strong and healthy, nor become able to develop the clear minds and moral strength we so urgently need.

The task of agriculture is overwhelming. The farmer and gardener help to build up the physical body of mankind. They work with the most valuable material we can think of-Mother Earth. Out of the earth the plant-life grows. The plants nourish the animals, and plants and animals contribute to our life.

This book will contain an account of scientific work carried out since 1920. Until the year 1936 I worked in the Biological Institute of the Goetheanum in Germany (Stuttgart), and since then in the Biological Institute at Bray, near Maidenhead. *

In 1924 Rudolf Steiner, well known as scientist and founder of the Anthroposophical Movement, entrusted me personally with the task of making all the necessary scientific investigations in connection with his Agricultural Course. Since 1924 I have studied all his suggestions for regenerating Agriculture. Many farmers and gardeners all over the world practise his methods; and for this there exist various associations bearing various names. I do not belong to any of them and have in mind to speak only of my own scientific investigations, holding myself responsible for them.

It is to be regretted that the original lecture course of Rudolf Steiner is not yet published and is only entrusted to a relatively small group of farmers, gardeners and other personalities in the form of a private manuscript. I restrict myself to the shorthand notes I was entitled to make during this course, held at Koberwitz (estate of Count Kayserlingk) and the innumerable personal suggestions I received from Rudolf Steiner. I am convinced that this will be sufficient to make the importance of the subject quite clear to every earnest reader and to enable him to benefit by this new agricultural method. Nothing will be withheld; this is no time for secrecy. Rudolf Steiner meant his suggestions for the whole world, not for a small group of privileged farmers. Only a real understanding of the wonderful organism "Agriculture" will make it possible to grow healthy food.

London, 28th September, 1939.

L. KOLISKO.

* Since 1940 the work has been continued in Rudge Cottage, Edge, nr. Stroud, Glos.

NOTE

It was originally intended that this book should be written in two parts, by Dr. Kolisko and myself working in collaboration. He had collected his material during many years. In the early morning hours of November 29th, 1939, he called me and said he was ready to begin. He was full of enthusiasm and energy for the task. A few hours later he suddenly passed away.

Yes, we were both ready. It is my duty to write the book now with the help of his notes and remembering our talks upon all the various aspects of the subject. But it will still be our book, the fruit of our common studies and the work of many years together. May it help to solve the urgent problems of our present time.

L. KOLISKO.

Christmas, 1939.

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