



Report of the Tenth Annual General Meeting of the Bio-Dynamic Association

THE Annual General Meeting was held at Alliance Hall, Palmer Street, S.W.1, on 13th July 1950, at 11 a.m.

Mr. Gardiner opened the meeting by welcoming Dr. Pfeiffer who, as President of the Association, took the Chair.

The Minutes of the Ninth Annual General Meeting were read and accepted and signed by the Chairman.

The Honorary Treasurer's Balance Sheet and Report were read and adopted.

The Honorary Secretary explained that as there had been so little active work connected with the Association during the past year and in view of what might be said later during the meeting, a report was hardly necessary.

Mr. Gardiner thanked the Secretary for all she had done to make successful the arrangements for Dr. Pfeiffer's visit.

Dr. Pfeiffer thanked Mr. Dew in appreciation of his preparations of the Accounts and expressed gratitude to Miss Cross for her diligent and capable editing and publishing of the News Sheet and to Mr. Gardiner and Miss Thornton for their respective help in maintaining the life of the Association.

Dr. Pfeiffer then addressed the meeting.

He said he had not been here in England for ten years and was not in a position to give a report of the last years, but that he could offer some suggestions for improvements and make proposals for the future.

He felt that the work here ought to be carried on by the people in this country and that we ought to be free and make our own decisions and accept no kind of authority in what he himself had to say. He would resign and we could discuss as friends what should be done in future. He would do his best to help, but the work here ought to be carried on by those who work here.

He then spoke of how he had to co-operate with people in America on a factual and business and a spiritual basis. The manager of a large fertilizing company had said: if we accept your ideas we should have to give up a five billion dollar business and some 300,000 persons would be unemployed the bottom would have fallen out of their lives - and you would have socially to take care of the unemployed. This shows how, to guide things in the right way, it is necessary not only to transform industries but also to assume social responsibilities.

Dr Pfeiffer referred to Rudolf Steiner and spoke of how looked on every human being as having a place to fill. In our Bio-Dynamic Movement we must enable each human being to fulfil his own aim and to find a place in and be a part of this Movement. We should be able to find ways and means of uniting the Bio-Dynamic Movement, of working on the basis of acknowledging achievements, not looking at differences but at what has been done and acknowledging it. Just as in a living organism the organs do not criticize but help each other.

Dr. Pfeiffer expressed the wish that the Bio-Dynamic Association and the Anthroposophical Agricultural Foundation might be united. He would suggest that the Bio-Dynamic Association's News Sheet should still be carried on as the one more suitable for the outside work and the public, whereas the magazine of the Anthroposophical Agricultural Foundation might be more for internal work and a refining of what we present outwardly. He referred to the good bio-dynamic work Mr. David Clement is doing on his farm (Broome Farm, Clent) and said he had seen none so good in the Organic Movement. He thought Mr. Clement should be the representative of our Movement to farmers and he hoped Mr. Gardiner would be willing to do the same in forestry.

He considered that the Council or Board of the proposed new organization might consist of the Chairmen of those groups or bodies which would be particularly concerned with different aspects of the work such as science, publications, preparations, farming and gardening, and that a Central Secretary might receive all correspondence and forward it to the Chairman of the specific group for attention. Then those, for instance, who were taking care of land would deal with the enquiries in that direction, etc. He himself would give what help he could.

He stressed the importance of investigating the financial position before advising conversion to

bio-dynamic treatment. We had been too idealistic about this in the beginning and it had taken twenty years to learn to come down to the soil. Dr. Steiner had said: "*To overcome materialism you must fight it with its own weapons.*" To fight science with its own weapons is to go into the materialistic culture of the age ; to go through the depths and rise again. As a younger man, Dr. Pfeiffer said he looked upon Parsival as a hero, or ideal. In a deeper sense Parsival means "*to go through the depths.*" When we enter into the depths in our Bio-Dynamic Movement we have to get to grips with the problem of survival. If one really does this in biodynamic work the reward will be thorough.

Dr. Pfeiffer told how an agricultural school, started in America with substantial financial backing, had had to be discontinued, and that he had since had to prove that a poor man can take over a farm and have it 100 per cent. bio-dynamic in five years and economically sound from the start. He mentioned his recent illness and consequent inability to do any work for two years, and finished by saying that even under severe difficulties a bio-dynamic farm can be carried on.

During the discussion which followed **several members** stressed the wish for Dr. Pfeiffer to remain as President and to reconsider his decision to resign.

Mr. Gardiner said he was anxious to serve and hoped the Movement could grow and be flexible. Though not an Anthroposophist, he venerated Dr. Steiner's work, and in loyalty to Dr. Pfeiffer was willing to hold office and help to find the right solution as to the form of a new organization. The Movement should have a heart and brain, not only a suit of clothes. As farmer, forester and gardener, he was prepared to accept Dr. Pfeiffer's suggestion to act as Chairman of a group, and proposed that a letter bearing upon what Dr. Pfeiffer had said should go out to all members of the Bio-Dynamic Association and also to those of the Anthroposophical Agricultural Foundation if they agreed. He would be willing to draft the proposed letter.

Dr. Mier said he could not, of course, answer for the Foundation, but his own reaction to the proposal was favourable and that we should try to find a practical form in which to carry it out.

Dr. Pfeiffer said he would like to carry on with the name " BioDynamic." He asked Miss Thornton to continue with the secretarial work in the meantime.

Mr. Maude wished the Executive to remain.

Mr. Hosking asked Dr. Pfeiffer to reconsider his decision to resign, and said we must be united to win the farmers. He had farmed, organically, for twenty years and had had no economic trouble and was able to keep going.

Mr. Jeffree agreed with Dr. Pfeiffer with regard to the suggestion for union and thought we should

do what we could to smooth the path.

Mr. Maude considered it advisable to call a meeting of members as soon as possible, so that a satisfactory decision could be arrived at before the end of this year.

Dr. Pfeiffer said we would have to work it out gradually and approach the other group with the idea. Different sections for science, publications, etc., should be formed and there should be a Central Secretary. The Chairman of each group should be one in a position to speak with authority on the work of his specific group.

Mr. Iffla, as a new member, was diffident about expressing a view. From a spectator's point of view he thought a reorganization with non-watertight compartments should take place with a council of leaders to impart a direction. He considered that with practical everyday farming there was no economic difficulty and on a biodynamic basis farming could be capable of making a happy livelihood.

Mr. Maude said "united we stand, divided we fall," and that we should certainly fall if we didn't do something, and the dynamic members should meet soon and discuss the matter fully.

Dr. Pfeiffer spoke with deep feeling of Lady Mackinnon how very much he missed her presence at the meeting : that he been thinking a great deal about her. He referred to her devoted work on behalf of the Movement and of the many helpful and friendly letters he had received from her. He desired that a letter of friendship be sent to her in appreciation of her past work, with an assurance of remembrance of her and deep regret that she was not able to be with us in person.

Mr. Maude made one appeal : that everything should be as simple as possible for the farmer. With simplicity and sincerity we should make the Association and Foundation absolutely secure.

Dr. Pfeiffer said he had great hopes for the future of the biodynamic work and that if we did not accomplish results it would be a great misfortune for humanity. He was not convinced about the desirability of missionary methods, however. He was concerned about the political situation and considered that the danger of world war was more than 50 per cent, and should war come nothing could be saved this time, not even America: there would be much more destruction than in previous wars and large areas would be uninhabitable. Atomic radiation effects would be disastrous in vegetable, animal and human life. It was necessary for individuals to be strong, for in the event of destruction and separation each person with knowledge would have to stand alone in the place where he was.

Mr. Gardiner hoped for true guidance in grave and human difficulties: if we listened to our conscience and our hearts too, each would find his or her part to play.

The meeting closed at one o'clock.

Pfeiffer lecture

Can farming save itself and the world?

Given at Caxton Hall in the evening of July 13th 1950 after the 10th AGM

Can farming Save Itself and the World?

(Report of the Lecture given by Dr. E. E. Pfeiffer at Caxton Hall 13th July 1950)

DR. PFEIFFER was **introduced by Mr. Rolf Gardiner** who welcomed the large audience to what was surely an uncommon occasion, and to the theme upon which much might be said that evening that would deserve careful record and recollection. Agriculture was everywhere in the throes of a revolution. The agrarian reforms pursued by the Russians were having repercussions in many peasant lands, while the Stalin plan for altering the climate of the Steppes must be taken seriously. For here was an endeavour to introduce a form of organic husbandry by decree and slave labour, without religious sanctions. Elsewhere it was not spectacular erosion which counted so much as a general widespread deterioration of soil fertility and a universal increase of illness and disease. England might yet provide the examples of good husbandry rooted in piety which would save farming from scientific materialism. He quoted the words of Archbishop William Temple, who said " that the farmer who cares for his land and neglects his prayers is, as a farmer, co-operating with God; and the farmer who says his prayers and neglects his land is failing, as a farmer to co-operate with God. It is a great mistake to suppose that God is only, or even chiefly, concerned with religion."

Mr. Gardiner introduced also **Lord Portsmouth and Lady Eve Balfour** both well-known representatives of organic farming, who would speak from the platform, and after explaining the procedure proposed for the meeting, called upon **Dr. Ehrenfried Pfeiffer**.

The lecturer began with the question : From what has farming to save itself ? From a situation in which it is becoming ever more technicalized and commercialized and is, in consequence, using up the resources of the earth and not properly restoring what it takes away. This is a paradox when one approaches things from the biological angle ; for then one looks on the soil as the supporter life, and on life as something that is inherently self-renewing.

There is a great modern literature of deficiencies and soil exhaustion, of shortcomings of all kinds and the difficulty of making a living in agriculture. The biologist, however, should approach the matter differently. He might say: soils are capital, and must be maintained as such, cost what it may. In general, however, human beings are willing to spend their resources on every conceivable thing except the real necessities of life!

Consequently we have in agriculture a peculiar situation. On the one hand, a steady decrease in the number of human beings engaged on the land ; for instance, where, fifty years ago, 35 to 37 per cent. of the American people were employed in farming, the figure twenty five years ago was 25 per cent., ten years ago, 18 per cent. and to-day it is about 12 per cent. only. That is, the land is depleted of human beings. That fact should be put in the main focus of consideration; when nowadays we deal with soil and crop deficiencies, we do not usually do this, but this deficiency of human beings is a basic one. These few people on the land have to clothe and feed all the rest of mankind.

On the other hand we have mechanization, usually supposed to help efficiency. Here Dr. Pfeiffer instanced his own farm as typical of American conditions : his 150 acres carry 27 to 30 cows and 15 to 20 young animals and is worked by two human beings, with mechanization. European immigrants are usually surprised at the conditions of life on such a farm, and at the intensity of work involved. For, infact, increased mechanization does not decrease burden on the human beings, who have to work harder machines ! There is not much time left for creative thinking.

Therefore, the research stations have to do the thinking for the farmer! That, at least, is the idea, but in fact, there are farms where science is really applied in farming. The science of the research stations hardly penetrates to the "dirt farmer." the Mr. Jones with a few cows; these are, in practice, two different worlds.

What happens is that science leads to the building up of a point of view, and this then acts like a dogma. The chief idea in agricultural science at present is the Liebig theory of the last century. This theory is really right and correct in its proper realm: that can be said by representative of bio-dynamic methods, working in friendly relations with the organic movement. The scientific work has become so specialized, however, that by the time the fruits of this theory reach the farmer they have become little more than the recommendation to look after nitrogen, potash, phosphorus and calcium in the soil.

Further, there is a shortcoming in the Liebig theory which was observed by Liebig himself. Towards the end of his life, he found that certain rich soils did not behave as they should according to his theory. The Liebig theory is correct in practice on poor soils, but not (as would be shown) on rich, really fertile virgin soils.

We want fertile soils, however. The pioneers in America had them; and in fifty to seventy-five years, these soils have been run down.

From the Liebig theory one concluded that the least abundant element decides the issue (the so-called law of the minimum). For instance, if potash is outstandingly deficient in a soil, then it is the lack of potash that controls growth. This is, in fact, a basic truth or life, which is always determined

by what it lacks most. For instance, money is of great use, but money does not help a shipwrecked sailor on a desert island; nor does it help in many other necessities of life. Now in soils, when the organic matter content is down to 1 per cent instead of the 4 per cent. of a fertile soil, it is the deficiency of organic matter that is decisive. That is the basis of the organic movement it has arisen as a consequence of earlier mistakes.

Beyond that there is another problem, one vitally connected with human health. Scientists in general are objective. When they are cover their mistakes they confess them. For instance Micherlich says: there must be some reason why all work done between 1933 and 1939, and in soil testing and the like, has led to the negative answer: We don't know. Such confession, nevertheless, is of little help to the farmer for whom science was supposed to do the thinking. He has been the loser. Science may confess ignorance, but the farmer has had to make his living out of this lack of knowledge.

Americans like to confess their errors. Gordon Wayne of Texas University, says, for instance, that many State research institutions share the characteristic of failing to foresee the evolution of agricultural problems. This follows from the very nature of their training. It does not lead them to an interest in basic biological problems. Hence they neglect the next century's problems in agriculture. It is a mistake to assume that a man trained in agriculture can cope with the biological problems of the future.

This shows that we need a new concept. We need the concept of the balancing of factors in life; a concept which necessitates our having an understanding for all the factors involved. Only when such a concept is developed and practised - when we are able to deal with the living process in its entirety, in the organized relations of its several factors with each other—then can we see light for the farmer who is the bearer of our future.

One-sided fertilizer practice has produced tremendous crops, but at a cost. This cost was not immediately obvious. The produce looked beautiful, the fine carrots, tomatoes and the rest. One day, however, Dr. Pfeiffer was shown some of these carrots which contained no carotene. A stunning discovery! One thinks of the literature on carotene in relation to Vitamin A, night blindness and so on. People are recommended to eat carrots on the strength of it. And then they buy carrots which contain little or no carotene. The diet which had been recommended by the doctor fails.

This is one example of the harm of believing something to be what in fact it is not. There are many other similar cases: e.g. bread, which fills the stomach with starch but is made from mineral or vitamin deficient grain. Similarly, there is the matter of the trace elements, the fineness of working of which is well pictured by the remark, that one might dissolve a teaspoonful of substance in the Gulf of Mexico, and find its traces in the water of New York harbour. Moreover, they cannot be

made good merely by administering a trace of chemicals to the soil. The soil may not be able to hold them. There is the symptom of calcium deficiency in cattle. These cattle lick and chew everything - plaster, leather, their ears and tails, their stanchions, tree bark, etc. It does not help if one gives even half a ton of lime because the poor animals can no longer assimilate calcium. But give a trace of copper and they become able to assimilate calcium again.

These catalytic or dynamic effects in the living organism have been neglected while science riveted its gaze on NPK. And the result now is : "*Malnutrition in the midst of Plenty.*" In the States one can get anything in the way of food; there may perhaps have been a little rationing during the war, but nothing worth mentioning. One could buy anything; and yet investigations have shown that in one big city area there were 20,000 cases of malnutrition as bad as those found in Holland as a result of the war. At present only very little is known about these deficiencies. It is, however, a fact that the state of malnutrition is world wide.

The importance of trace elements was mentioned by the late Dr. Rudolf Steiner in 1923–24. Had we taken him in earnest then, instead of calling him a "mystic" and so on, we might have avoided a lot of trouble.

One example is that of magnesium deficiency. In visiting English farms, said Dr. Pfeiffer, this was everywhere evident to the trained eye. Magnesium deficiency is widespread, sometimes as a result of using too much lime. Magnesium is needed by the plant to make chlorophyll, and for the production of protein. Where it is deficient the protein values are reduced, e.g. in Kansas, the protein of wheat has declined, from 15 per cent. to 12 per cent, and now even to 8 per cent., though textbooks still quote 12 per cent. as average. Professor Dalbé, of Paris, fifteen years ago showed a map of magnesium deficient areas coinciding with the map of areas of high incidence of cancer. Egypt, for instance, has no native cancer (the whites, who eat European foods, excluded) and the soils there are not magnesium deficient; towards the magnesium-deficient regions in the north, the rates are higher. This was not put forward, said Dr. Pfeiffer, as a proof, but simply as a question. It is a challenge. Millions of dollars are appropriated in the States for cancer research, but practically nothing for research to study the relationship: soil – plant – food - cancer.

Dr. Pfeiffer had experimented with feeding white mice on different types of wheat. One group of wheat came from bio-dynamic farms and Lady Balfour's. The other group of wheat was grown with commercial mineral fertilizer. Mice are interesting and irritable animals, with a kind of a soul life, although they have few ways of telling us about it. With their behaviour they react upon every outer influence; for instance, they foretell a coming thunderstorm. One of their ways of reacting to things is, to fight. Human beings do much the same. The mice fight till one or the other dies. In the experiments, 75 per cent. of those fed with mineralized wheat fought, as against 35 per cent. of those who received the organically grown. Gastro-intestinal diseases also were prevalent in the

mineralized wheat-fed group.

Mineral deficiencies are known to cause somewhat similar effects. Magnesium deficiency leads to irritability, lack of nervous control, poor appetite, later to convulsions. Compare this with the modern picture of neurotic symptoms: the lack of pep, the difficulty in concentrating. There is a veritable menu of deficiencies such as magnesium, iron, copper, zinc, manganese. Lack of copper causes sheep to lose their natural wool and grow hair like goats. It leads to listlessness, retarded glandular action, etc. With manganese deficiency one gets bow legs. The question may be raised whether this maybe is the origin, at some past time, of the Mongolian legs and perhaps of the Dachshund!

It is said that a high percentage of nervous disorders may be due to deficiencies and malnutrition. "Malnutrition in the midst of plenty." but more yields, higher yields, everything geared to production on the soil, with less production of nutritious values.

The remedy is not always to replace the "deficiency." It is necessary to restore the biological balance. In order to do so one needs a complete change in the approach of research and the basis of philosophy of life.

An example: Recently there was much talk in England about DDT in order to combat flies, mosquitoes, etc. We had this DDT fad too in U.S.A. But now the dairy farmer is warned by the U.S. Department of Agriculture Agents, County Agents, we call them, not to use DDT in dairy barns or on any crop which is eaten. It had been found to cause nervous disorders in test animals. It leaves an accumulative residue which stays in butter and body fat. And last but not least-the insects have become immune against it and are now nastier than ever before. Many sprays like this kill the insect all right, but poisonous residues are left. Very little is known as yet about these residual effects on human beings. Dr. Lehmann, writing in a State Journal of Medicine, gives warning about the dangers of the newest pesticides, which are dangerous unless more precautions are taken. They can cause liver and kidney necrosis and glandular disorders.

There is in fact a deficiency seldom recognized in the background -the deficiency in the ability of the human mind to cope with the whole. Instead of considering the primary cause of the trouble, we go on cutting off the limb where it aches. Something of what we need has been expressed by Goethe, in two statements :

1. That the whole is more than the sum of the parts, for in it lives something different from this sum. (One might perhaps call it the "organic idea " and speak of the " organizing factor.")
2. That where there is analysis, there must have been synthesis. In fact, in Nature the synthesis precedes the analysis.

Why, then, do we human beings not make the swing, up the next rung of the ladder, and admit a creative and organizing mind in Nature? We cannot yet even imitate this creative mind. All we attempt from the analytical viewpoint only leads to disaster.

These and many other illustrations could show that in order to rescue the soil, to produce healthy crops, to make the farmer's life more worth living, it is necessary to integrate all details to a concept of the organic whole. It is our health and future that is involved, and we all have to co-operate in living on the earth. In this picture of the situation are to be seen economic and social consequences, for the higher "unit" that is involved is civilization itself. When we fail to solve the problems of a living soil, of the plant, of Nature, in the small world of the farm because of a deficiency of knowledge, how can we expect to develop favourable consequences in the relationship of one man to another. Is not war, nowadays, the expression of the complete failure of our scientific mind and humanitarian attitude? We are not yet creators of life, we only split, disintegrate, analyze, break down, bombard, but do not "grow" and "synthesize" as yet.

Farming is a calling with deep responsibility. We humans learn this the hard way. In schools and universities we learn how to whip up the soil; but we have not learnt that there is a responsibility towards life and health involved in it. Unless we develop devotion again—not in a mystical sense but catering for life, health and growth, we will not save humanity. Farming is not everything, but it is a realm where we are being taught by experience. For the opposite of humanity is, to kill, to destroy. If we develop the organic approach to the processes of life we might be able to save farming, and per to some extent, civilization too. Perhaps towards the end century something of this may be possible. These things theory, but something, said Dr. Pfeiffer, which we are beginning to lay hold on in actual work with our hands, and can so lay of.

Following Dr. Pfeiffer's lecture, **Lord Portsmouth** recalled how about eighteen years ago, he had first met Dr. Pfeiffer on an ill-kept compost heap in Wales! and how he had often wished since to meet him again. In the course of the lecture the experiments with mice reminded him that R. McCarrison, twenty years ago, had got somewhat parallel results with rats. Their temperaments were affected similarly.

But the problem was: how to apply practically the things we realized in this direction. One condition would be: to treat our motives in business life as we do in ethical life. For instance, white bread is better business than wholemeal. We begin now to know, however, some of its bad effects, e.g. on dogs. So there we have a motive to change that. The attitude of many supporters of the organic movement tended, perhaps, to be, that only the smoking odours of the compost heap are acceptable to God!

Examples bearing on the re-creation of right motives might be given from Africa. There one had a farm on virgin soil, where maize would have to be grown, as the staff of life for the natives. It takes nine months in the ground, however, and if the rains fall one can grow nothing after it. So one may decide on a rotation of maize, suni maize, with green manure after the sunflowers, giving valuable for cattle and human beings too. But sunflowers are hard to and the price has gone down. And the danger is, that for the so an odd shilling or two, the whole agriculture of a colony may

As regards treating things as a whole, one has in Africa to return organic matter to the soil but to contour the land, and that is only the beginning. There must be trees planted, for windbreaks: arrangements must be made so that the whole of the land grazed properly. In a virgin soil and tropical climate these necessities are more vivid. It means going out there with the intention to develop the land not out of charity to oneself, but to the generations yet unborn. Love must carry through to them: it is the only way.

The drive for soil conservation and landscaping, now coming from the U.S.S.R., has its dangers in this connection, unless we learn from it. With the right motives it can help to save the world ; namely, if it is a co-operation with Nature. Viewed as a conquest of Nature it will not help. We have to begin with the land. Its greatest crop can be the human beings who grow on it with health, faith and the desire to serve the future.

Lady Eve Balfour then spoke, pointing out how Dr. Pfeiffer's work in Holland, and Sir Albert Howard's appreciation of it, had been part of the inspiration that had led to the Soil Association. Dr. Pfeiffer was one of the founders of the thought behind this body.

Lady Eve wished to strike the practical note in what she said, so as to connect on to the questions that were to follow. The need for wholeness of outlook was as old as Plato, who had said: "At the present time there is nothing more needed"! She was brought up against it in her work; for instance, in the conflicting demands for trees and agriculture. There is a once fertile county in England in which the farmers have sworn to destroy every tree. The effects of this sort of thing are most evident in the Scottish highlands in the boggy area, fruits of long past deforestation. Even today, a mere fence, to control livestock, leads to a new growth of birch. If, there, we would learn to start again where we should never have left off, and consider the interplay of species in Nature, the quickest way to go back to work would be, to spend money on fencing.

Lady Eve knew an area in Scotland which, till the first World War, was fertile. The timber was felled then, and it was replanted with conifers. Since then the neighbouring fields either blow or flood. In fact the broad-leaved trees are indispensable, but they are not a good timber proposition !

She quoted Sir Henry Beresford Piers as being "*well prepared to believe such a thing,*" and as instancing a hill above Loch Ness which was adequately drained, until the birches were ringed to

make way for conifers. In two years thereafter, the hill was a bog. These are examples of the need for a whole view.

The ever more lethal nature of the insecticides coming into use is very disturbing. Nineteen deaths in the past year were due directly to this. And now these materials are being used from helicopters. In one area thus sprayed, the symptoms were showing among the people living there. Moreover, immune pests are developing as a result, which is one of the reasons why the sprays have to be even more and more poisonous.

Now what results from the other method of approach, that of co-operation with Nature? An example: a grower working with organic methods had an infestation of greenfly. He hovered for twenty-four hours, wondering whether to use an insecticide, but after this time, there was an invasion of ladybirds which devoured the greenfly. That has happened in three or four examples in Lady Eve's knowledge. Possibly the ladybirds avoided the sprayed crops! We need the new conception of balance; attacking symptoms will never solve problems of balance.

A recent report from Chute bore on the point of magnesium deficiency and protein. There they have no deficiency, and the protein of all crops is high, the milk protein being 2 per cent. above the county average. There we have deficiency prevented by organic treatment. That is the sort of thing they are chasing at Haughley too.

There they are tackling two main controversial points. Nobody, to-day, advocates doing without organic manure; the controversy turns on whether mineral fertilizers, used with organic manures, do harm. That is the one point, the second is the question, whether in humus treatments, it is necessary to include animal manure.

There followed a number of questions from the audience, to which **Dr. Pfeiffer** gave a joint answer. As to the reasons for excessive swarming of bees this year in Kent, he said he could speak only of what he knew, and he had little knowledge of bees. With regard to poisonous sheep dips, perhaps one must use them as long as there is nothing better.

Dehorning of cattle, of course, is done for convenience. An idealist may decide against it, but after losing valuable dairy cows through injuries he may think it over again. Personally, Dr. Pfeiffer likes a cow with horns; but he has no evidence that dehorning is harmful. If anyone had any evidence the thing could be taken up. An observation might be mentioned in that connection: Geiger counts had been made of natural gamma rays, and found to be less inside a cow's horn. But that experiment had not been repeated.

Similarly with artificial insemination; we would like evidence of harmful effects, but it must be proven facts, not opinions. So far he had seen none. It was interesting that artificial insemination was used even in ancient Egypt, and by the Mongolians under Genghis Khan to breed their horses.

Their results were not so bad! It was observed, however, that artificial insemination did not work so well with heifers. There seemed to be some need of the "natural" process at first. With older cows it worked better.

As to how to overcome the profit motive, Dr. Pfeiffer said that to the biologist the profit motive certainly can be a curse, and yet he concluded that what is biologically sound is also economically sound the farm. One needs to look at the profit motive a little closer: to put it under the microscope. Is it short-term profit at the expense of capital? For instance, heavy maize crops with fertilizers, especially growing hybrid maize, deplete the soil more than can be replaced by fertilizers. The land restoration costs more than the land is worth, so that when the Government is asked for subsidies one has to use the taxpayer's money to restore it. There the farmer profits, but the community suffers. The economic process is not an organized unit: it is atomized. We need to learn (1) about the organic interaction of different things in it, and (2) to adopt long-term policies. In restoring a farm to fertility, one considers periods of eight to fifteen to twenty years; in forestry, where water conditions are considered, one has to think in terms of two or three centuries. And considerations of life, culture, civilization have to extend over five hundred years or more. That is the sort of thing that can heal the bad effects of the "profit motive." The real profit is in that which promotes the continuation of civilization not in an individual getting more at the expense of others, of health, etc.

As to the great unused areas of land, they too should be included in long-term policies. Why not tie this up with the unemployment question? The Sahara, for instance, contains very fertile soils, lacking only water; why not irrigate it? Then, if these areas were brought into production, one could re-afforest worn-out submarginal agricultural soils. These things, however, need to be discussed as biological necessities, and by the human beings actually concerned in them, not by power groups, governments and the like.

Therefore the bio-dynamic farmers have first to have something to show, to convince people. The present meeting on the platform of Mr. Rolf Gardiner, Lady Balfour and Lord Portsmouth was a good beginning of integration of various interests.

About vegetarianism, Dr. Pfeiffer again stressed that he was concerned only with facts. The quality of the product, whether vegetable or meat, decides, not the question whether I should be a vegetarian or meat eater. We are not concerned with theories about it.

As to soils rich in lime, they grow good livestock, but they are hard to maintain. The clay over limestone, as in Kent, is sometimes calcium-deficient due to faulty management. Moreover, liming to excess can do more harm than good, unless there is enough organic matter present to hold it. Dr. Pfeiffer had been investigating some soils this year, where 4000 to 6000 lb. of lime per acre had been applied. Still the soils were deficient and poor crops growing tomatoes were no good-

because of unbalanced conditions.

The question of how to eradicate gorse in New Zealand might be turned into one of: was the soil already good enough? If gorse grows for a couple of centuries it builds up a very good soil. Also, one might find another plant hostile to it in order to crowd it out. Observe patches where the gorse does not grow, to this end. Some weeds die out when manured : for instance, liquid urine kills poison ivy. One should study the biological balance before resorting to fire and pesticides.

With regard to scientific tests for assessing composts and soils, Dr. Pfeiffer said that the present tests were inadequate for living soils. The chemical tests miss the point that there is a yearly cycle in the availability of elements, phosphate, for instance, is high in May and October, low in August and December. The yearly fluctuation is sometimes greater than the differences between different fields. Then availability varies under different plants; that of potash under maize is entirely different from that under beans. Then one needs to know the physical and colloidal structure of the soil, the percentage of humus. Tests for micro-life in the soil, too, should, besides the mere bacteria count, point out whether the soil process is one of upbuilding or of breaking down. It is like analysing a two-shilling piece, when the real point that matters is, is the person who earned it going to waste it or does he need it to pay a debt ?

So a soil analysis ought to show what process is going on in it; of upbuilding or decay; whether humus is being broken down or whether it is stable. The study of soils can tell much more than is revealed only in the NPK concept. Recently we learned through it how to transform city garbage into humus in six to twelve days, cow manure, in the laboratory, into humus with an increase of nitrogen, in two to three days. The thing is, to look at the life-process, not at mere figures.

Human health relationships are so complicated that, although one would rather not do so, one needs to make animal experiments. But Dr. Pfeiffer likes to reorganize a farm that is run down, a process which may take four to five years, during which the soil becomes less acid, the pH going from 5.5 to 6.5 in two or three years and the organic matter increasing, in three or four years, from 1 per cent. to 4 per cent, or so; as was the case on his own farm. Contagious abortion disappears in the herd, and one has something which is not easily put into tables of figures, but which can be shown as a whole. Rudolf Steiner spoke of the farm as an individuality, with a personality of its own. If that can be achieved one can restore the farm to health in no time. This sort of evidence is really the best testing method. It is like the case of a sick person given up by the doctors, who then recovers. There are the X-ray pictures, taken before and afterwards, which fail to explain it, and one just says: "How wonderful." Similarly with the farm; that as a whole is the best test organ.

Mr. Rolf Gardiner then rose to sum up and thank the lecturer. There was one question Dr. Pfeiffer had not answered: that of manpower on the land. Mr. Gardiner pointed out the land hunger in the

world, and the vicious cycle of modernization and mechanization, which pushes people off the soil. Faulkner's work on mulching and restoring delinquent soils may indicate a turning point; from now till the end of the century we may get a great movement back to the soil in search of health and wholeness. The present dislike of hard work is attributable to food grown on delinquent land. He looked forward to a coming time of healing for the soil and for man.

Dr. Pfeiffer echoed the call: Forward to the Land! As to mechanization, in the States one was forced to mechanize. Here and on the Continent the bio-dynamic methods should still help the peasant farmer. The peasant farmer is the backbone of agriculture.

In America it was a challenge: to work with Nature and to mechanize; experience has proven that this is possible. But even over here, a bit more mechanization on some farms could do a lot of good. Increased mechanization, however, is expensive. But any rightly done mechanized process can help, e.g. spreading manure, chopping wastes, etc.

The farmer, alone, however, cannot solve the whole problem. Unfortunately good land is so unevenly distributed on this earth. The proper social balance is necessary. During the depression of 1934-36, in America, farmers were working twelve hours a day while in the neighbouring towns men were drawing unemployment pay.

The meeting closed with a hearty tribute from the audience to the lecturer.

Can Farming Save European Civilization ?

Rolf Gardiner

(This was the theme of a first European Husbandry Meeting held in Southern England, 1st-14th July 1950),

SINCE the close of the periods of classic civilization around the shores of the Mediterranean, the evolution of European culture may be traced in the ever-widening clearances of original forest lands north of the Alps, and in the drained fens and deltas of the great river mouths around the North Sea and the Baltic. This immense labour, begun in the days of Alfred and Charlemagne, was originally directed and led by the Christian Church through monastic orders and feudal manors. It extended to the borders of Russia and founded islands of civilised society in the the midst of that vast Sarmatian land-ocean. And later, since the Reformation, the expansion of Western man has known no halt, neither overseas nor eastwards across the Vistula, until recent times.

But now, not merely a check, but a reversing motion, has penned the European multitudes within amazingly narrow confines. In the areas forcibly vacated by the Germans, the Estonians, Letts and

Lithuanians, not merely Russians and Poles but Mongols, Tartars and Manchurians have been settled on age-old European farms and estates. East Prussia to-day is an Asiatic colony.

Meanwhile the over-industrialized west of Europe is no longer capable of sustaining itself without outside succour. It is estimated that Western man increased from 150 to 700 millions during the period from 1800 to 1930, while the soil available for nourishing these vast hordes of predominantly urban people is still shrinking in quantity and quality.

In America, in Russia, in East Asia, in Australasia, above all in Africa (so recently bruited abroad as "the larder of Europe"), soil erosion is still the major threat, and everywhere it is a race between food and population. The difficulties arising from surplus stocks in mass-productive lands agrarian lands do not alter the fundamental facts of widespread starvation and desiccation.

In the middle of the second World War a group of Englishmen who formed a *Kinship in Husbandry* gave much time and thought to the foundations of the Natural Order¹. Their discussions and exchanges had a germinal influence and a fructifying effect on their individual tasks. England, they knew, had grown great because of her soil and an unbroken tradition of husbandry and craftsmanship. But this tradition was in danger of being extinguished by scientific industrialism and impersonal bureaucracy. If England was to resume the task assigned to her by Pitt "*of teaching the other nations how to live*" she must indeed undergo radical atonement and restoration. Return to Husbandry² was the title of a pamphlet circulated among thousands of Service men and prisoners of war in enemy camps abroad. This annotated agrarian book-list and its essays (by Edmund Blunden, Arthur Bryant, H. J. Massingham, Lord Portsmouth and Rolf Gardiner) made a forthright appeal : between now and the year 2000 let the sorry mess of a suburbanized Britain be cleared away and England be restored to her royal health and beauty. It was a call which met with a hungry and baffled response from hundreds of readers who felt the need of country-living as opposed to the uprooted existence of suburban life.

To leading members of this Kinship England, however, was an integral part of European Christendom, the fount of inspiration which had sent St. Boniface from Wessex to become the first Bishop of Germany, and had reared Shakespeare to become the acknowledged king of European poet-dramatists. To a Europe engulfed by Slav-Mongolian collectivism and American en masse-democracy, England had a special mission. Perhaps here our struggles to resume the rightness of a decentralized local order of society and culture might be of service in the greater efforts of Europe as a whole to find a third way between so-called Communism and Capitalism. The pursuit of this aim was necessarily shelved by the immediate campaigns at home (of such bodies as the Soil Association, the Council for the Church and Countryside and other groups, all of which drew on

1 The Natural Order, Essays in the Return to Husbandry, edited by H. J. Massingham (Dent).

2 Return to Husbandry, edited by Edmund Blunden (Dent).

the ideas and personal contributions of the Kinship in Husbandry). But the point was never given up that sooner or later consultations between leaders of organic agrarian thought throughout Europe must take place, and that these should begin with a few carefully chosen personal contacts and exchanges rather than by general conferences. With Germany and Switzerland we had already longstanding friendships. With the Scandinavians we were always on very natural terms of understanding. With France, a great country of undoubted regional and local reserves, but exhausted by centralization and Parisian intellectualism, we had few relations. But it was now suggested that " L'homme et le Sol," although probably somewhat academic in the grand French manner, might provide a bridge.

Early this year Lord Portsmouth, J. E. Hosking and the present writer determined to pick up the threads of this pattern. We therefore planned what we called a European Husbandry Meeting and invited four Germans, two Swiss and three Frenchmen, all of outstanding merit individually, to join us in a fortnight's fairly leisurely journeying from point to point across southern England. In the end all the Frenchmen failed to appear. But three Germans, and a very redoubtable veteran Swiss, Konrad von Meyenburg, the inventor of rotary tillers, joined us. To this party came also, like Hermes, Dr. Ehrenfried Pfeiffer.

Pfeiffer, the author of *Soil Fertility, its Renewal and Preservation* and *The Earth's Face, Landscape in its Relation to the Health of the Soil*, whose scientific work at Dornach in Switzerland and practical farming on the island of Walcheren in Holland are not widely enough known, is probably the greatest Continental authority on organic husbandry. His return from America to Europe this summer was therefore an event of importance.

In order to welcome Pfeiffer to these islands a tour by charter plane and car was arranged for him (as President of the Bio-Dynamic Association) which bore him from Kent to Aberdeenshire and thence to the West Midlands and back to Wessex, Middlesex, East Anglia and London. Thus this valuable observer of soils and farms could see for himself much of our green and pleasant land, and meet men and women at many centres, farms and estates. His comments were penetrating and wise. Seldom was there a man who knew the peculiarities of the working soils of different European countries and who had then become a practical commercial farmer in the United States who could look at the whole earth with such earned authority.

Meeting at Hosking's beautiful manor home in Kent the group of friends began their tour, first across Sussex to Hampshire where a second sojourn was made in a delectable nook of Lord Portsmouth's Hurstbourne estate, and then to Springfield where a fine week-end brightened a sodden summer. The luxuriance of England's vegetation, the many closes and compartments of our folded, hedge-ribbed landscape, made a great impression on the Continental visitors two of whom had wide experience of the open monotonous steppes of eastern Europe and torrid

southern Russia. They felt that the innumerable "islands, within the island" of Britain, gave England her ancient strength and repose, her unexhausted reserves of power and beauty. Even the belching industrial areas of the midlands and the north, the concrete wastes of metropolitan London, the shoddy suburbs of our provincial towns, could not efface the stretches of deeply loved, variegated, carefully stored countryside where every tree seems to have individual personality and refuse regimentation, where order is natural and happily untidy rather than imposed. To our German friends especially, England is still *Zauberinsel*, the land of Shakespeare's *Histories* and *The Tempest*, tenanted by historic ghosts and natural faeries. And these give England lasting strength and glory, only to be betrayed by cheap commercialism and parvenu State-Socialism.

At Springhead took place the essential discussion on the agrarian situation in Russia-Asia, in America, in Europe. Ehrenfried Pfeiffer described the situation in the United States where, he said, the struggle between soil-exploitation and commercialism on the one hand, and organic peasant, family-farming on the other, was by no means decided. Dr. Theo Oberländer and Professor Hans Raupach, both with wide experience of Eastern Europe and Russia, reported on the upheavals which are taking place behind the Iron Curtain and the transformation of ancient primitive peasant communities into industrialized agrarian factory brigades. But they also emphasized the inevitability of change and the enthusiasm which modernity can engender among unsophisticated peoples in spite of state violence and arbitrary organization. In Russia the tendency was for ever bigger land units. The Stalin Plan was grandiose and would doubtlessly be forced through. Would the benefits that emerged ultimately balance the frightful sacrifices entailed?

In Germany, bisected by the Iron Curtain, the ancient peasant holdings of the West were swamped by refugees from the East. Preeminently industrial Western Germany had lost its natural agrarian hinterland and its obvious markets. The whole economic equilibrium had been violently upset. There was a feverish unrest among the western farmers, particularly the youth, who felt that the traditional methods of tiny parcellated holdings had become intolerable in a modern age, and that perhaps the changes in the Eastern Zone were of a kind which deserved emulation. Here was a grave and imminent danger. The West German peasantry was chafing against the restrictions of an outmoded and in some ways oppressively narrow farm economy: it might explode and surrender to very powerful pro-Soviet propaganda.

It became clear to those participating in these slow, careful deliberations (sheltered by the bright colours of the Springhead Millroom while outside, across the Lake, the downs and afforested slopes gleamed radiant with high summer), that Europe was still the Hellas of the modern world with Aesculapian powers of rededication and recovery. It was still for Europe to find a third way" between Russia and America. This must remain our steadfast theme, our search and our

endeavour. Anything else was betrayal and abdication. This responsibility implied a sacramental approach to agriculture. To the European who is true to his traditions and beliefs husbandry cannot thrive without a Blessing. Is it not the exemplar of wholeness and balance, continuity and true history? Hence the urgency for regaining the attention of the Churches and of all religious denominations for this central activity of men: the cultivation of the earth. movement of the Church and Countryside in England had been halted by a certain theological inflexibility, by the scholastic tradition and by lack of Bishops and clergy of calibre (save for a few outstanding exceptions such as the late Archbishop Temple, Bishop Bell of Chichester and Bishop Lovett, recently of Sarum Diocese). But a few imaginative steps in the right direction had been tried out and the people had responded to a remarkable degree. In Germany the Roman Catholic Church was perhaps more aware of the need and more capable of effective action than the Evangelical Churches with their ethical approach and impoverished liturgy. Nevertheless every endeavour to fashion a new concept of agriculture as a sacramental task should be welcomed and furthered.

The great responsibility which Britain had overseas in the Dominions and Colonies was also emphasized in the discussion. Both Lord Portsmouth and Rolf Gardiner had personal affiliations with Central Africa and were therefore deeply interested in the plea of the Continentals for opportunities to give the best of their unemployed young men scope in the development, on organic and religious lines, of a modern Africa. These overseas countries were either extensions of European culture or its natural hinterland. The time had come when the British Commonwealth and Africa should look to western Europe as a whole and not merely to Britain as their ancestor, and as a source of both fresh man-power and inspiration. The overseas lands were a common responsibility and task confronting all the Western peoples of European stock.

At the week-end, after excursions to other parts of Dorset, a garden-party was held at Springhead to which came distinguished local agrarians such as Sir George and Lady Stapledon, Dorset and Wiltshire farmers, and members of Young Farmers' Clubs. Sitting in the shade of a great multi-stemmed Locust tree (*Robinia pseudoacacia*) and looking out towards the bright garden, the ancient strip-lynchets and the wooded slopes of the downs, the conference extended to hear addresses by Dr. Pfeiffer and the other guests. The Locust seemed symbolic since this tree, a legume, is known as one of the great agents of soil-restoration in many parts of the world. It is now common to America, Europe and Russia. Thus it is a sort of modern Yggdrasil (of Yggdrasil, the ash tree of northern mythology, it was said that the roots run in three directions: one to the Asa-gods in heaven, one to the Frost-giants and the third to the underworld. Under each root is a fountain of wonderful virtues.). Richard St. Barbe Baker, founder of the Men of the Trees, recounted the campaigns for shelter-belts in both Russia and America and the need for a New Earth Charter. Thus the tree became the living symbol of world peace, concord and fruitfulness.

Under its shade men of all natures and races could converse without fear in a diversity of tongues.

In Memoriam : Lady Mackinnon It is with the greatest regret that we record the death of Lady Mackinnon. After long illness marked by gradual failure of bodily powers she passed peacefully away on 28th February. 1951.

From the earliest days of its introduction into this country her interest and belief in the "New Agriculture" never wavered, and as many of our members will have experienced her ready help and advice were always at hand. All that she undertook was carried out with scrupulous care, sincerity and singleness of purpose. Her presence amongst us is greatly missed.

Postscript The Editor much regrets the so long delayed issue of News Sheet, No. 29. Most members are no doubt aware that during 1951 the Bio-Dynamic Association and the Anthroposophical Agricultural Foundation were united to form the new Bio-Dynamic Agricultural Association. It seems best however to send out this No. 29 in the form originally designed for Nov. 1950.

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