S.O.F.I. OCN 3428 - OC&C: Unit 2 Theory of Organic Cultivation. Element 4

Extract from ***FARMING AND GARDENING FOR HEALTH OR DISEASE***

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CHAPTER TEN **SOIL FERTILITY AND HUMAN HEALTH**

"In the last two chapters the relation between soil fertility and the health of crops and livestock was discussed. But what of the effect of a fertile soil on human health? How does the produce of an impoverished soil affect the men and women who consume it? The purpose of this chapter is to show how an answer to these questions is being obtained.

When discussing how crops and livestock are influenced by an impoverished or by a murdered soil, the subject is obviously restricted to the solid portion of the earth's crust. because cultivated plants and domesticated animals are nourished by what the earth's green carpet produces. But when we consider mankind, we have to include the liquid portion our food. We must also take note of the produce of the large area of uncultivated land in the shape of forests, prairies, and so forth, which produce some fraction of our nourishment. These additional sources of food have not been sensibly altered by *homo sapiens.* He has so far not seriously attempted to increase the harvest of the sea by means of chemical manures or to interfere with the natural produce of the forest or prairie. These have escaped the attention of agricultural science and their crops are now what they have been for centuries---Nature's unspoilt harvest. (1945)

We must further include in a survey of our consumption the wholeness of produce as created by Nature. This point is of the greatest importance in considering such things as our daily bread. Freshness is another factor, particularly in vegetable food. Finally we must consider the influence on our general nutrition of the various food preservation processes such as canning, dehydration, and freezing.

The food supply of civilised man is, therefore, a wide subject. Its investigation bristles with difficulties---some are inherent in the subject, others are man-made. For all these reasons we must, therefore, not expect to obtain such rapid and such clear-cut results as are easily possible when considering the relation between soil fertility and the health of crops and livestock.

Let us first consider the difficulties which are inherent in the subject. These are at least three. In the first place, the average expectation of life of a human being is many times that of the average crop and of most of our domesticated animals; human beings also carry large reserves which can easily be used. Any results on health due to the food supply are, therefore, likely to develop slowly. In the second place, we cannot experiment on human beings in the same way as we can on crops and animals. {or can we ?} Lastly, it is at present almost impossible to obtain regular supplies of the produce of well-farmed land, with which to feed a group of people for the time needed to show how such produce influences their health and well-being. Except in a very few cases, food is not marketed according to the way it is grown. The buyer knows nothing of the way the land was mannered or poisoned. The only way to obtain suitable material would be for the scientific investigator himself to take up a piece of land and grow the food. This, so far as my knowledge goes has not been done. This omission alone explains the scarcity of reliable experiments and results, and why so little real progress has been made in human nutrition. Most of the laboratory work of the past has been founded on the use of material very indifferently grown. Moreover, no particular care has been taken to see that the food has been eaten fresh from its source. The investigations of the past on which our ideas of nutrition are, for the moment, based have, therefore, little or no solid foundation.

When we come to consider the man-made obstacle that have to be overcome in any investigation of human nutrition, we reach what may fairly be called the citadel---the fortress, as it were that must first be reduced before the final investigations which are needed can even begin. These difficulties are bound up with the present-day organisation of the medical profession. As is well-known, our doctors are not only trained to study and cure disease, but receive their remuneration either from the State or from their patients for these duties. The general outlook of our medical men is, therefore, pathological ; like any other profession they have to consider how to make a living in return for the services they render: they have also organised themselves along somewhat trade union lines.There is now little or no training for positive health: no openings and no remuneration exist for the pioneer who wishes to ascertain and demonstrate the connection between soil fertility and health. The great prizes of the profession lie in the opposite direction--- in surgery and in conventional medicine. There is no Harley Street in which the apostles of real preventative medicine can be found and consulted.

But thanks to the work of the pioneers of the profession itself, a change is taking place. The importance of positive health, of real preventative medicine, and the reform of medical education and training, so that an altogether new type of medical man can be created, fitted to lay the foundation of real preventative medicine----the public health system of to-morrow---are now being actively debated. Naturally these include the whole future of the medical profession, of our hospitals, and the place of the State in the new organisation. As there will be no source of private remuneration for men and women engaged in promoting health and preventing disease at its source, the State is the obvious paymaster. The whole movement is a natural development of the present panel system. Bur the individualists amongst the medical profession objects to their profession coming under the control; of the Ministry for this or that. They point out how the dead hand of the permanent government official is certain to stifle all originality, all freedom, and all progress. Judging from my own personal experience of the way the State has ruined agricultural research, there is much to be said for seeing to it that the apostles of preventative medicine must have scope, the freedom to work out their own salvation, and above all protection from the petty interference of the average bureaucrat who at any moment, may be promoted to control men immeasurably superior to himself."
(pp. 167-169)

PART THREE: THE PROBLEM OF MANURING
CHAPTER XII: ORIGINS AND SCOPE OF THE PROBLEM

"The great problem before agriculture the world over is how best to maintain in health and efficiency , the huge human population which has resulted from the Industrial Revolution. As has already been pointed out, this development is based on the transfer of food from the regions which produce it to the manufacturing centre which consume it and which make no attempt to return their wastes to the land. This amounts to a perpetual subsidy paid by agriculture to industry and has resulted in the impoverishment of large areas of the earth's surface.

A form of unconscious banditry has been in operation: the property of generations to come, in the shape of soil fertility, has been used not to benefit the human race as a whole, but to enrich a dishonest present. Such a system cannot last: the career of the prodigal must come to an end: a new civilisation will have to be created, in which the various reserves of the earth's crust are regarded as a sacred trust and the food needed is obtained not by depleting the soil's capital, but by increasing the efficiency of the earth's green carpet. This involves the solution of the problem of manuring.

Why does the problem of manuring arise? What is the reason for our constant anxiety about the state of the soil? This preoccupation is as old as the art of agriculture. The problem occurs throughout the world, being recognised as a first consideration among all cultivating peoples. Its antiquity and its universal character are striking and must lead us to conclude that it is based on something of fundamental importance.
Briefly stated, the necessity for manuring arises out of our interference with the natural cycle of fertility.
.....all the acts that make up agriculture are serious interruptions or interventions in the slow and intricate processes which make up growth and decay." (p. 182)

THE UTILIZATION OF TOWN WASTES

"The zones of agricultural land round our towns and cities are {were} largely used to produce the fresh vegetables, fruit, and milk needed by the population. These areas ought , therefore, to be maintained in the highest possible condition. For this large volumes of compost will be needed. How is this to be obtained in areas where the supply both of vegetable wastes and of activators of animal origin are certain to be small? The answer is: By the conversion into humus of the wastes of the towns themselves supplemented by baled straw brought from the countryside.

Although our towns are fed from the countryside, little or no return of urban wastes to the land takes place. The towns are, therefore, parasitic on the countryside. This will have to stop. The wastes of these areas must go back to the soil. This can be easily achieved by large-scale composting on the part of the municipalities. Instead of allowing the dustbin refuse to be buried in controlled tips or burnt in incinerators, this material should be turned into compost (by the help of crude sewage from the mains.)"
(pp.196-7)

Learner Sig. ***Date*** ***Assessor Sig.***