

produced and which may carry residues from the use of some of these pesticides and herbicides.

Mr. COON: I cannot elaborate on that question. You were referring to mineral deficiencies in the soil, were you not?

Mr. WHELAN: Yes, and the crops produced from that soil. For example, I am thinking of cattle pasturing on that land, eating the grass and hay which have been grown on these soils and which are lacking in these mineral constituents. I have read several articles in this connection and these articles have pointed out that this is more dangerous than a lot of people realize.

Mr. COON: I believe you are referring to the selenium deficiency in the soil in the northwest.

Mr. WHELAN: Yes.

Mr. COON: Yes, this is one case I can think of. I cannot think of any others. There has been some trouble in the midwest from selenium deficiency in grazing cattle.

Mr. WHELAN: It has been maintained that some of our fertilizers—and I am thinking particularly of lime—will contain a high lead residue. This goes into the soil. I may say that some lines of fertilizer do not contain this. It is my understanding that if some action is not taken to counteract this problem it could lead to an over amount of this chemical in the produce which is produced. They say it can cause cancer. As I say, several articles have appeared on this subject. As you know, most professional people condemn us amateurs for reading this material. You will recall there was an article which appeared in *Reader's Digest*.

I did not like what Mr. Otto said when he referred to the farmers using these insecticides like some alcoholics use alcohol. It is my feeling that most agriculturists try to reach the ultimate in perfection in connection with the use of these materials. As I say, we are more alarmed in respect of the mineral deficiencies in the crops which are being produced. We do not have proper testing facilities to test for traces of these things in the plants or the soils which produce them. Does the same apply in the United States?

Mr. COON: This is quite outside of my field; I know very little about mineral deficiencies in the soil which might give rise to mineral deficiencies in plants. Actually, from the standpoint of quality of foods I have not become aware of mineral deficiencies in foods that are grown in the soils in the United States.

Mr. ENNS: I was interested in a comment the doctor made about the capacity of the human body to find an equilibrium by secreting or rejecting the surplus D.D.T. which might be absorbed and, in a way, your general statement did include pesticides. Yours was an optimistic view that things were not as bad as reported by some writers.

Could I ask this question: is there a deterioration of the contents which make up a pesticide such as D.D.T., in the human body? If the intake is reduced or completely eliminated will we always have the D.D.T. we took in, let us say?

Mr. COON: When the intake of D.D.T. or any of the other so-called accumulative pesticides is stopped, then what has been stored in the body begins to be excreted. It is quite slowly excreted and more slowly in the case of D.D.T. than in the case of many other materials. Now, actually I am not aware of how long it takes for a good load of stored D.D.T. to disappear from the body.

D.D.T. stored in the body does change chemically within the body. There are two other forms which still have some toxicity but these tend to be excreted