

vice versa. For example, such things as ducks and geese. Here indeed there is an urgent need for the study of the effect of insecticide accumulations, particularly the chlorinated hydrocarbon accumulations on these rather long lived birds such as ducks and geese. Also there is indeed an urgent need for basic work on finding out what happens in the eggs with respect to chlorinated hydrocarbon residues, because it does appear there is a tendency for them to accumulate in the egg as it is developed in the mother bird, and these are points which at present are the missing links in our knowledge. We have knowledge of the deaths, and *a priori* knowledge of what might happen, but we need basic physiological data to fill the gap in understanding. For this I would think university research would be the answer.

Mr. ENNS: Is there any connection or relation with the overlapping of harmful effects of fallout and insecticides and can this in any way be married by saying we are facing the threat from these two sources? Which are we more concerned about and how can we fend off these two dangers? I know you can avoid it by not using it. Are they counteracting or interacting in their effects?

Mr. BROWN: The effects are different. The effect of fallout is one which may not show itself in this generation and may not show itself until succeeding generations. Then, as you know the dangerous effect of radioactive fallout is the genetic effect in changing the genes which go to make up the genetic constitutions of individuals or animals or plants. In the case of insecticides, this is not involved at all; there is no hidden delayed effect of that nature. So that when the one has been compared with the other as sources of equal menace, you are really confusing apples with oranges.

Mrs. CASSELMAN: Professor Brown, how do we compare generally with the other areas of the world in research, and can we fill in the missing links in some of this research?

Mr. BROWN: I will say yes to your second question, very much so. It is simply a matter of being well informed, and it is surprising how far you can get simply by diligent scholarship of what has been done in other parts of the world to date. It is fantastic how much has been done. When people say that very little research has been done, nine times out of ten it means that little research has been read by that person. On the other hand of course, our research should fit into a context which is given by personal or mail contact, professional contact between the Canadian and the American or the British or others. The researchers should be able to build up their fields between themselves, and as scientists they are encouraged to formulate their own concepts and take their own direction of investigations. And so an applied sub-science such as this gradually grows, and people at technical meetings can then exchange their information and come to their own conclusions. Does that answer your question?

Mrs. CASSELMAN: Yes. Would it not be economically wise for governments to work more towards communication in such expenditure of individual research that may be repetitive?

Mr. BROWN: Yes. One has always felt it is a crying shame that government scientists cannot attend meetings for lack of funds to go.

Mr. WILLOUGHBY: Is the WHO not coordinating research in different countries at the present time?

Mr. BROWN: To a certain extent, in a way, you can say yes. The main way in which you do coordinate of course is by putting out what is called Information Circulars, in which everything that you know to be coming up in different laboratories and in different states of completion is abstracted and sent to all members of the circle. At the same time consultants are sent to a variety of other countries.

Mr. WILLOUGHBY: Is there no central committee at the present time?