

safety, utility, control, etc., or further elaboration of that data already submitted. Then, if the government examiners are satisfied that the compound fulfills the legally established requirements in accordance with proposed label claims; that the host plant or animal is adequately tolerant to it; that it is safe for humans to use or consume; that it is practicable to use; that it is stable in storage and distribution in the time and environment of its use; that it is compatible with other materials likely to be used with it; that it can be assayed reliably in its method of use; and finally, that the product is economically valid—then it may be registered.

Only when this roster of regulations is met to the full satisfaction of the government authorities is the product registered and allowed to enter interstate commerce, and then only within the strict confines of its approved label claims and recommendations and within those states whose own regulatory agencies are willing to accept the data as presented to the Federal authorities.

#### DANGER REDUCED TO MINIMUM

This long and tortuous course is by no means complete, however, when the first label is registered, as it must be, at least in part, repeated for each successive additional use and label claim for which registration is sought. It is obvious that this necessary and accepted restraint upon the evolution of new chemicals for agriculture exerts a massive screening effect that reduces the chances of the emergence of products, dangerous to the consumer, to a minimum.

The fact is that new chemicals are so critically studied and examined before they are released for commercial use that their potential hazards to human health are not only less but better understood than many of those which occur in so-called "natural" foods.

#### CARCINOGENS IN "NATURAL" FOODS

One of the major themes constantly recurring in the literature opposed to agricultural chemicals contends that only "natural" compounds are safe and only "natural" controls of pests and diseases are really effective. The argument that only "naturally grown food-stuffs" (whatever that means) are safe for human consumption because nature ensures that they will be free from carcinogens, toxins, allergins, goitrogens, adverse enzymes, etc., is completely in error.

There are, in fact, a whole array of well-accepted and long-used "natural" foods which are now known to contain appreciable amounts of suspect carcinogens, and doubtless many more will become known as food chemistry advances. A few familiar examples are tannic acid in tea, in nuts and in many fruits; capsicum in peppers; thio-urea derivatives in