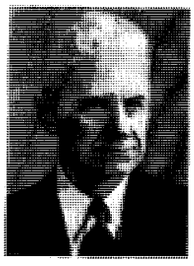
THE OBSERVATION POST

Philip H. Groggins

The Consumer's Stake in Pesticides

Frank App, director of research and development for Seabrook Farming Corp., is guest columnist

INASMUCH as the purpose of producing food is for consumption, the consumer's viewpoint is the determining factor on how we produce and distribute this item—the largest one in the cost of living. An appraisal of our food industry is a measure of our resourcefulness in producing and distributing food from grower to consumer in order to meet the consumer's desires and needs. Such an appraisal must begin with the consumer's viewpoint—what he wants and how he wants it, the kind of food desired, and the method of distribution. Since the procuring of foods is an every day occurrence, the consumer soon learns to look for certain features desirable in each type of food purchased.



Frank App

Fruits and vegetables sold as fresh have certain characteristics essential for merchandising and acceptance by the consumer. The same commodity purchased as quick-frozen, canned, or dried has still other characteristics determined by the consumer. However, regardless of the form of preparation or distribution, the consumer demands that the food shall be palatable and have no off-flavor resulting from the application of pesticides. We have learned in the past few years that our perishable foods are easily altered in flavor through the use of some chemicals. In some cases, this is highly undesirable.

Our food technologists are conducting taste tests to determine what is taking place when certain pesticides are used on growing fruits and vegetables. They have called in the statistician to help estimate experimental errors. They are consulting with the horticulturists and the plant physiologists to learn why such changes take place. Last, but not least, they are working closely with the entomologists and pathologists to learn how pesticides are used and why.

We ordinarily think that if a fruit or vegetable is delivered free from insects, disease, and blemish, that the pesticide used, if any, is satisfactory. However, we know that this may not be true. The pesticide must not only protect the product from insects and diseases but in addition to this, it must leave the product with its natural flavor. Furthermore, the consumer neither expects nor wants any toxic residue left on the product bought for consumption. This is very important even though the product may be washed in the home before preparation. Consequently, the grower must follow a practice of growing the crop so it will arrive on the market without any residues from the applications of pesticides.

Fortunately, the more recently developed pesticides are in most cases less toxic to warm blooded animals than the old arsenicals used in previous years. Consequently, the industry has made a step ahead when viewed from the standpoint of safety to the consumer. Furthermore, residues that may be present at the time of harvesting are ordinarily removed by washing before packaging for market, and in other cases the pesticide will be fully oxidized so that there is no longer any toxic residue remaining. In other words, the grower has a choice of selecting an insecticide or fungicide that will not endanger the consumer but will at the same time protect the crop from insects and diseases.

There are still other attributes demanded by the consumer. Many packaged foods are sold under a brand label. The consumer becomes educated to what these brands represent and frequently buys them because he believes the brand to be a quality protection. It must also be attractive, convenient to prepare, and moderate in price, but in no case shall it be contaminated by insects, plant diseases, or toxic residues.

To meet the requirements of both the grower and the consumer, many new pesticides have been developed during the past 10 years and the number continues to increase. Our chemists have found how to synthesize pesticides and are testing thousands of chemicals from which they may find one of economic value. I believe it is estimated that about 1800 various chemicals are tested in order to find one which may be a worthwhile addition for agricultural use. Approximately $5 million are expended annually in the search for new and better pesticides. About $90 million are being spent annually by the growers for pesticides that were not known or used 10 years ago. This is not only a tribute to the industry but to our agriculture as well.

The research head of a large chemical company recently made the statement that 5264 different chemicals were tested before one of commercial value for controlling weeds was found. The requirements of any pesticide are rigid and must meet the requirements of the grower to control the specific insects and diseases, permit safety in handling, and eliminate residues through oxidation or mechanical means. I believe it is safe to assume that there is no other segment of farm supply industry that has been making the progress made by pesticides and herbicides during the past 10 years. Our research men feel that these continuing investigations hold much for the future. The acceleration now under way in the field of herbicides is just beginning to make a real contribution to agriculture. Where the studies in the field of hormones and antibiotics ultimately leads will depend upon the resourcefulness of our research and development, which has been so fruitful in the development of better things.

Industry and agriculture are interdependent in this development. The grower is ready to use any product superior to those now on the market. The vast amount of research and development together with the technical information supplied by the manufacturer to the grower is made possible by reason of our economy, which profits from the free choice of the individual. Agriculture today is making more rapid progress toward more efficient methods of production than it has at any time in the past. The cooperative efforts of all the interested groups have made it possible for the consumer to enjoy a wide selection of foods at moderate prices, with the highest quality obtainable, and free from undesirable foreign elements.