- 2. Advanced screening; preparation of laboratory quantities; patent activities; preliminary process and cost studies.
- 3. Preparation of larger quantities; development of analytical methods; field testing; subacute toxicity studies; formulation studies; residual studies.
- 4. Final choice of the most promising compound; pilot plant facilities; finalization of process; development of commercial production; accelerated field testing; additional field testing; residue; toxicity and pharmacology studies.
- 5. Submission of complete data for registration.

A cost, sometimes as high as \$3 million, is incurred in developing a candidate pesticide to ensure its efficiency and safety in use.

Safe and efficient use of pesticides

The industry works closely with the food and drug directorate and the occupational health division of the Department of National Health and Welfare, and with the plant products division and the research branch of the Canada Department of Agriculture.

The association maintains close liaison, as well, with federal and provincial government committees to ensure maximum effectiveness and safety in the use of pesticides. In this way the pesticides industry recognizes its responsibilities in providing a means for Canadian agriculture to improve substantially the quality and volume of Canadian farm produce.

The association supports the government fully in its administration and enforcement of the provisions of the Pest Control Products Act and the Food and Drug Act, bearing in mind the following objectives:

- 1. The health of the consumer, in Canada, and in our export markets;
- 2. Safety in application, as regards the applicator, nearby crops, and contamination which might affect public health;
- 3. Effectiveness—in contributing to agricultural production from the standpoint of high quality and volume, and low cost.

Conclusions

- 1. As the means of food production become increasingly complex, interdependent and effective, the possibility of overlapping and contradictory legislation arises, with the confusion and inefficiency which such a situation inevitably brings with it. For agricultural pesticides, the present clean-cut control under the Pest Control Products Act and the Food and Drug Act has proven most effective. This is particularly important for Canadian agriculture, which is a major component of a small economy.
- 2. The recognized responsibilities of the provinces in use and farmer education may require broader action at the provincial level as the application of pesticides becomes more widespread and more complex. Initiative and coordination by the federal government is useful here and is evident in many instances, particularly in the activities of the National Committee on Pesticides Use in Agriculture.
- 3. The need for education in safe use at the farmer and the spray operator level is a real one and one in which the industry has been active in co-operation with government for many years.
- 4. The need for continuing prosecution as required at the offending level, in cases of misuse, sets a good example in the interests of proper use and instills confidence in the public at large.