position. The trucking is done by individual carriers experienced in horticultural products or by the customer's picking up their orders. A few smaller orders are sent by UPS, bus, or air freight.

MAINTENANCE AND CLERICAL

The maintenance group is small and provides basic services for the other crews. This involves one man for installing water lines, basic carpentry, and covering the polyhouses. Another maintenace man takes care of the service to tractors and equipment. The maintenance crew also loads trucks and provides general weed control through herbicide application or mowing.

The office staff is composed of one full time employee for processing orders and handling inventory, bookkeeping, and correspondence. During busy seasons, we will hire part-time help here as well as in the maintenance or production areas. The company we hire for part-time help provides their employees' workmen's compensation coverage so that we have no problem with our unemployment tax rate when they leave.

Before being hired, all employees are required to fill out and sign an application that includes a 90-day probation period.

PESTICIDE SAFETY

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CAUTION is the signal word on the label of the least toxic pesticides. *When used according to label directions, there is no danger* to the applicator nor to the environment *from any pesticide*, even the most highly toxic ones. No pesticide is safe when used haphazardly.

TOXICITY AND HAZARD NOT SYNONYMOUS

Toxicity value is not the *only* factor to consider regarding the potential danger or hazard of a chemical to human or other animal life. Users of pesticides should be concerned with the hazard of exposure to the chemical and not just the toxicity of the material itself. Hazard and toxicity are *not* synonymous. *Toxicity* is the inherent capacity of a substance to produce injury or death.

Hazard is a function of toxicity and exposure and is the potential threat that injury will result from the use of a given formulation or quantity of chemical.

A pesticide may be extremely toxic but present little hazard to the applicator or others when used:

— in a very dilute formulation,
— in a formulation that is not readily absorbed through the skin or readily inhaled,
— occasionally and under conditions to which humans are not exposed,
— only by experienced applicators who are properly equipped to handle the chemical safely.

On the other hand, a chemical may exhibit a relatively low mammalian toxicity but present a hazard because it is normally used in a concentrated form that may be readily absorbed or inhaled.

THE PESTICIDE LABEL

Labeling regulations require all manufacturers of pesticides to indicate clearly relative hazards in using the contents of each container and to give instructions for its safe use. This includes protective clothing and container disposal information as well as environmental hazards.

Signal words used to indicate relative hazard are DANGER, WARNING, and CAUTION. Products bearing the word DANGER must also bear the word POISON printed in red and are about 10 times more hazardous than products bearing the word WARNING. Products that bear the word CAUTION are 10 times less hazardous than products identified by the word WARNING.

RECOMMENDED PROTECTIVE CLOTHING

Most injuries resulting from the use of pesticides have occurred because applicators ignored label directions to use protective clothing and devices during mixing and application. There are only two reasons for *not* wearing protection; ignorance and stupidity.

Everyone who handles and/or applies pesticides should use neoprene gloves, goggles or face shield, respirator or gas mask, long-sleeved shirt, full-length trousers, neoprene boots and a wide-brimmed hat or waterproof head covering of some type. With products bearing the signal word CAUTION goggles and respirator may not be required by law (label directions), but we use and recommend their use with *all* pesticides.

GENERAL SAFETY PRECAUTIONS

When more than one product will effectively control the target pest, choose the pesticide with the least potential hazard

to you, the environment, and your plants. This does not always mean the product with the lowest mammalian toxicity. Consider rates and frequency of use required for each product.

Pesticides by their very nature are poisonous to man, other animals, and sometimes plants. They become dangerous when improperly or carelessly used. When the following steps are observed, misuse will seldom, if ever, occur:

1. Properly identify the pest problem and determine what pesticide to use. Seek an expert's advice if in doubt.
2. Apply according to label instructions. Read the manufacturer's label carefully and completely, paying particular attention to the precautions and antidotes.
3. Wear clean protective clothing and use clean equipment.
4. Remove clothes after using poisonous chemicals and bathe with soap and water. Wash clothes before reusing.
5. Store pesticides in their original labeled containers in a locked storage area out of the reach of children, pets, and livestock. Never guess as to what is in a pesticide container. If you are unsure, discard the entire container with its contents.
6. Dispose of empty containers and/or old chemicals properly, safely, and according to the law.
7. Never use sprayers with leaking hoses or connections. Clean equipment immediately after each use and store it where children and livestock cannot get to it.

MISUSE IS DANGEROUS

Good coverage is not possible with poor equipment. Poor coverage is wasteful and potentially dangerous because repeated applications will be required. Also, poor coverage, resulting in ineffective control, usually encourages applicators to use stronger pesticides than should be necessary to control the target pest. Any form of misuse is dangerous.

There is not a single documented case of anyone's being killed or even injured by any pesticide, worldwide, when the product was used according to label directions. Also, no environmental problems have resulted from labeled use of pesticides. Misuse or accidents are responsible for all documented problems caused by pesticides.

Pseudo-scientific propaganda and the tireless drumbeat of misguided environmentalists has resulted in the banning of some of our safest, cheapest, and most effective pesticides. The only evidence they can cite of injury has been from misuses. Actually it seems that misuse of a pesticide is more hazardous to the survival of the pesticide than of mankind. The U.S.

Environmental Protection Agency banned DDT on what it later conceded to be political, not scientific, grounds. Few pesticides on the market today are less hazardous than DDT. Let's not lose more good chemicals by misusing them.

SUMMARY

Follow label directions. Remember that CAUTION is the signal word on the label of even the least toxic pesticide. When used according to label directions, there is no danger from any pesticide, even the most toxic ones. No pesticide is safe when used haphazardly.

WATERING CONTAINER-GROWN PLANTS

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Twenty-six years of working with Georgia nurserymen has acquainted me with a wide range of problems that can affect the production of shrubs in the artificial environment of containers. By far the most common problems that I have encountered are related to watering practices and/or soil aeration of potting mixes.

The single most important practice in container production is water application. If the grower is sensitive to the effects of water on container plant growth, then he is in a position to refine other practices, including fertilization and pest control.

Here are some observations that I would like to share with you concerning water application:

There is often inadequate communication by nurserymen to their employees who actually make the day-to-day water management decisions. The ultimate quality of the crop depends, to a great extent, upon the quality of decisions made by the individual in charge of watering. Nurserymen often do not take the time to train their employees to identify the variables that can affect decisions of how often and how much water to apply.

The term "overwatering" is a poor choice of words due to the variety of meanings that it imparts. Actually the term is used to refer to two distinct situations: (1) too frequent applications of water, and (2) too much water in a single application. Irrigating too often is the cause of most water-related problems that I encounter. The result is that the potting mix is at or near field capacity for too much of the time. Applying an excessive amount of water in individual applications is a rare