Crop spraying has become an activity of great economic importance. Widespread use of insecticides and herbicides has helped cause a remarkable increase in agricultural productivity.

However, crop spraying can be as dangerous to the farm economy as it is valuable. The same chemical that destroys weeds is equally deadly to such crops as cotton, grapes, and tomatoes. Some insecticides that kill the corn borer or armyworm may also kill livestock and valuable colonies of bees. Therefore, damage often results when chemicals drift to susceptible crops and animals on adjacent property. Most of the legal problems resulting from pesticide use arise from the drift of chemicals to a neighbor's land. The major offender in this respect has been 2,4-D.

Because of the dangerous nature of herbicides and pesticides, their sale, use, and application is closely regulated by law and court decisions. Farmers, custom applicators, and pesticide dealers should be familiar with these laws and the principles upon which liability for damage is determined.
Economic-Poison Law

“Economic poisons” include all pesticides, plant regulators, defoliants, and desicants. The economic-poison law is intended to protect the public from fraud in the sale of economic poisons and from injuries resulting from their use, and to regulate their distribution.

The law prohibits misbranding or the use of labels that contain false or misleading information. The label must contain instructions for use of the material, a statement warning that the material may be injurious to people and animals, a listing of the ingredients of the container, and a specific warning if the material is poisonous to man.

Each economic poison must be registered annually with the Illinois Department of Agriculture. The Department may request samples of a registered chemical at any time. If it finds that the chemical is not properly labeled or does not warrant the claims made for it, the Department may give the manufacturer reasonable opportunity to correct the defect. If correction is not made, the registration may be cancelled.

Custom Applicators To Be Licensed

A 1965 law requires all custom spray operators doing business in Illinois, whether resident or nonresident, to obtain a license from the Illinois Department of Agriculture. “Custom application” means any application of pesticides by aircraft or ground equipment done by a hired contractor. However, the following are exempt from the license requirement: (1) canning companies spraying their own crops, (2) farmers who spray for themselves and no more than two other farmers annually, (3) municipalities and other governmental units, (4) veterinarians, (5) licensed tree experts, and (6) people using pesticides around their homes.

The applicant for a license must pass an examination to show his knowledge of the proper use and application of pesticides. In Illinois there is a $25 fee for issuing the license. The applicant must also file a reasonable performance bond to secure the performance of his contractual obligations.

A custom operator who does business without a license is subject to stringent fines. Being licensed and bonded, however, does not relieve him from liability for damages caused by overdosing, drifting, or misapplication of chemicals.
Use and Application of 2,4-D

The herbicide 2,4-D and related herbicides (2,4,5-T and MCP) can be deadly if they come in contact with broad-leaved fruit and vegetable plants. In recognition of this danger, law authorizes the director of the Illinois Department of Agriculture to prohibit or restrict the use of these chemicals in areas where commercial production of fruits or vegetables is one of the principal sources of agricultural income and where there has been actual damage to production during that or the preceding year.

Either the County Board of Supervisors (Commissioners) or at least 10 commercial producers from the affected area may petition the Illinois Department of Agriculture asking that the use of 2,4-D be prohibited or restricted within a designated area. After a hearing has been held to determine what restrictions, if any, are justified, the Department will issue a ruling. This ruling may deny the relief requested, completely prohibit use of 2,4-D within the prescribed area, or define the conditions under which it may be used within the area.

Five days before such an order becomes effective, notice must be posted in at least five public places within the affected area. In addition, a notice may be published in a newspaper of general circulation.

LIABILITY FOR DAMAGES

Violation of one or more of these laws may be used as evidence in determining whether a person is liable for damages caused by his spraying activities. Liability, however, is usually governed by broader common-law principles. Farmers and custom operators should also be familiar with these principles and some of the precautions they can take to reduce the risk of liability.

The Grower’s Risk

According to a well-established legal principle, a landowner must use his land in a reasonable manner with due regard for the rights and interests of others. If he negligently permits a dangerous substance to pass from his land to that of another, he can be liable for any resulting damages.

Following this principle, most courts will require a showing of negligence before holding a person liable for injury to adjoining owners or to their property. Negligence is defined as the failure to use reasonable
care under the circumstances. It might result from improper selection, mixing, or application of chemicals.

A court could find negligence, for example, if spraying was conducted on a windy day, if the spray was applied too close to a fence line, if a pilot failed to cut off his spray over adjoining property, or if sprayer heads were not adjusted properly. However, once it is established that damage was caused by a grower's spraying, very little in the way of careless conduct is necessary to sustain a finding of negligence against him.

While most states require some showing of negligence, the courts of Louisiana, Oklahoma, and Oregon recognize that even the most careful applicator often can neither predict nor control the many elements that cause dusts and sprays to drift. These states have dispensed with the negligence requirement and apply the doctrine of strict liability to crop spraying. Strict liability means that a person who makes use of an unusually dangerous substance does so at his own risk.

These courts conclude that since a grower deliberately exposes his neighbor to a high degree of risk from drifting chemicals, the responsibility for any damage that results should be his.

Since strict liability is based on the high risk associated with an inherently dangerous activity, it is more likely to be applied to aerial spraying than to ground operations. Both Louisiana and Oklahoma, however, have applied the doctrine to ground applicators as well.

It is not yet clear whether Illinois will follow the negligence theory or the strict-liability theory. In two cases decided by the Illinois Court of Claims, state employees spraying weeds in a highway right-of-way allowed 2,4-D to drift to adjoining tomato fields. The Court without discussing the basis of liability held that they were negligent. It is possible that in a proper case the Illinois courts could still adopt the strict-liability theory. In any event, it is well to keep in mind that there is always a substantial risk of legal liability to other landowners, sometimes as far as 20 miles away. In nearly all cases decided by appellate courts to date, an injured party who proved that the defendant's spraying caused his damage was allowed recovery.

The Independent Contractor

A custom operator or independent contractor must ordinarily assume any liability arising out of his activities since it is he who actively causes the damage.
The question may arise as to whether a grower can avoid liability by hiring the work done by a custom operator.

As a rule, a person who hires an independent contractor will not be liable for damages caused by the contractor's negligence except when the work to be performed is inherently dangerous.

Most state courts hold that crop spraying, both ground and aerial, is sufficiently dangerous to impose liability upon the grower who ordered the work done, even though damage was caused by the custom operator.

Likewise, the custom operator may be liable to his employer or to third parties for damage caused. Thus, the injured party will usually sue both the grower and applicator in a single lawsuit and, upon proving their liability, will receive judgment against both. Either party can be made to pay the judgment in full. If the grower is required to pay the judgment, he will usually be entitled by law to reimbursement from the applicator. It is good practice, however, for a grower to have a written contract with the applicator which, in addition to stating the time and number of treatments, the chemicals to be used, the price, and terms of payment, includes provisions such as the following to protect the grower from liability to adjoining owners:

1. "The applicator will use only appropriate and effective materials prepared and mixed according to scientific standards for the particular purpose, and will apply such materials in proper strength and in an approved manner."

2. "The grower will be reimbursed in full by the applicator for any injury or damage resulting from defective materials or faulty application, or from negligence on the part of the applicator in carrying on the operation."

When a neighbor's crops are highly susceptible to the chemical, thus imposing a high degree of risk, good practice would require the following clause:

3. "The applicator agrees to maintain insurance that will reimburse the grower for any damage he may be required by law to pay other owners who suffer injury to crops, livestock, bees, or trees as a result of the spraying operations."

The contract might also require the applicator to furnish certificates of insurance showing coverage against liability for property damage and personal injury arising from work covered by the contract.
The contract does not relieve the grower of liability to injured parties. It merely imposes a contractual duty on the applicator to reimburse the grower if he is held liable. If the applicator fails to fulfill this duty, the grower may still have to pay. Therefore, to be fully protected, the grower should also maintain his own chemical damage insurance.

**Amount of Damages**

Throughout this circular reference has been made to "liability" and "damages." An important question to farmers and custom operators is just what constitutes damages.

The objective of the law in this situation is to place the injured party in the same financial position he would have occupied had the damage not occurred. That is, he should have the same profit for the year that he would have had if the crop had been harvested and sold without damage. The estimate of what the yield would have been had there been no damage should be based on the average yield of crops of the same kind in the area, planted and cared for in the same manner. If an injured farmer, however, can show that his advanced practices have consistently produced better yields than the average in the area, his estimated yield may be based on his average production for prior years. Damages are equal to yield multiplied by the market value prevailing at harvest less the cost of maturing, harvesting, and marketing the crop, and less the amount received for the actual yield. Properly applied, this formula will fulfill the legal objective.

**Cutting Down the Risk**

A grower doing his own spraying can reduce the risk of damage suits in several ways. First, of course, extra care should be used in selecting, mixing, and applying chemicals. Also, a waiver may be obtained from neighbors. The waiver may be useful when neighbors are doing their own spraying and do not carry liability insurance to cover spray damage. It probably would not be feasible, however, where custom applicators are doing the work.

If a custom applicator is hired, be careful to select one who has the training and skill required to do a satisfactory job and who is properly licensed.

If nearby neighbors have sensitive crops or bees, it may be a good idea to enter into an arbitration agree-
ment by which you agree to pay for any damage caused by your spraying activities. If the amount cannot be agreed upon, an arbitrator must be called upon to appraise the damage. Usually the contract states that findings of the arbitrator are binding on the parties. This procedure avoids the need for a lawsuit and eliminates most of the expense incident to a suit.

The custom operator is in a different position from the grower. He would find it difficult to obtain waivers or agreements from adjoining owners so he must rely on well-trained personnel, good equipment, careful operating practices in accordance with applicable state regulations, and adequate liability insurance. If he has to rely on the insurance very often, however, he may lose the insurance and often his business as a consequence.

**Insurance**

Adequate liability insurance should be maintained because damage, regardless of the degree of care used, can occur. Most farmers carry some form of liability insurance that provides payment for personal injuries and property damage for which the insured farmer is legally liable. It is important for a farmer to know just what activities his liability insurance covers, however.

For example, nearly all policies exclude coverage for liability arising from aerial dusting or spraying of crops. Some policies exclude damage to property resulting from any herbicide, whether applied from the ground or by air, while others exclude only damage caused by ester-based chemicals such as 2,4-D.

If a farmer sprays for neighbors, his regular liability policy will not protect him unless he has a special endorsement for custom work. Likewise, his farm policy will not cover damage caused by a custom operator whom he hires to work on his farm.

**Residues**

In addition to the legal problems that may result from drifting chemicals, there is a possibility of damage and liability from residues. Certain chemicals leave residues in the soil that may affect susceptible crops planted in the future.

If a tenant or landowner fails to inform a subsequent tenant or landowner that such chemicals have been used, he may be held liable for damage to the susceptible crop planted by the new tenant or landowner.
Therefore, purchasers of the property or subsequent tenants should always be informed that chemical residues are present. Likewise, it would be a good idea for purchasers or renters of farmland to inquire about previous use of chemicals on the land.

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<tr>
<th>POINTS TO REMEMBER</th>
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<tr>
<td>WHEN USING ECONOMIC POISONS</td>
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<tr>
<td>• Be familiar with the laws and regulations governing the sale and use of economic poisons and comply with them.</td>
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<td>• Be familiar with the characteristics and proper use of any economic poisons you use. Be aware of the crops or livestock that could be injured by their use.</td>
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<tr>
<td>• Do not spray when the direction and velocity of the wind could carry the chemical to susceptible crops or livestock.</td>
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<tr>
<td>• Be familiar with your insurance policy. Read the exceptions. Are you insured against liability for chemical damage?</td>
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<tr>
<td>• Use care in selecting a qualified custom operator. Use a written contract with provisions protecting against liability for his negligence.</td>
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<td>• Inform subsequent users of the land if chemicals that leave residues have been used on the land.</td>
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This circular was prepared by John Henderson, Assistant Professor of Agricultural Law.