LEGISLATION AND REGULATIONS

Strict liability may enter court decisions involving crop dusting

AERIAL CROP DUSTING, the application of either dust or spray pesticides, has become an activity of great importance to the pesticide industry and the farmers of the U. S. In California, for example, 1.9 million acres were treated by aircraft for pest control in 1950; by 1952 this area had increased to almost 3.5 million acres.

Increasing application of crop dusting has been accompanied by a number of legislative and regulatory problems, major among which is the question of liability. Insecticides are indiscriminate between boll weevils and bees. Herbicides may be equally "effective" against weeds and cotton. In its December 1953 issue, *The Stanford Law Review* recommends that farmers and the pilots they hire be held responsible by the courts regardless of how carefully the dusting is done. Here are some of the items brought out by the law review in developing its proposition.

In California application of 2,4-D has increased the rice yield by 30 to 40%. But in 1951, 2,4-D was involved in more reports of damage to crops than any other chemical. Although relatively harmless to narrow-leafed plants, the chemical's herbicidal activity is due to an extreme toxicity to plants with broad leaves. Herbicides are perhaps the greatest problem in connection with crop dusting liability. Insecticide liability has usually concerned the bee keeping industry.

The Problem: Drift

Drift of the pesticide from the area to which it is being applied to adjourning property is the principal source of damage. Generally, dusts drift worse than sprays. Consequently dusting with 2,4-D has just about disappeared in the West, and nearly all work is by spray. (For more on California spray problems see AG & FOOD, Dec. 9, 1953, page 1175.)

Drift of a dust or spray particle depends on particle size and atmospheric forces. Application equipment for aerial spraying is designed to produce particles with an average size of 100 to 200 microns, but actual size range is usually 20 to 400 microns. A 15-micron particle might drift about 2000 feet in a 3-mile wind when dropped from a height of 10 feet. As the size of the particle increases, the drift goes down; in the same wind a 100-micron particle could drift about 50 feet if dropped from the 10-foot height. Dust preparations for aerial application are usually of the order of 1 to 5 microns. In a 3-mile wind, a 3-micron particle might drift up to 8 miles in falling from a height of 10 feet.

Natural atmospheric forces are the greatest and least controllable forces affecting drift. Coupled with these natural forces are factors of aerodynamic turbulence introduced by passage of the airplane through the air. This turbulence is advantageous in that it helps to disperse the material over a wide swath. However, these same currents can cause individual particles to be carried aloft where they are affected by natural atmospheric forces.

This combination of particle size range and atmospheric forces introduces a number of uncontrollable factors in aerial application of pesticides.

These uncontrollable factors have had an effect on liability problems emerging from aerial application.

Liability

Under ordinary liability proceedings, the individual is liable for damage due to negligence. Thus in some crop dusting cases, the applicator has been found to be liable if he has applied pesticides under conditions which he knew or should have known would cause damage to adjoining property (unfavorable winds, for example). In these cases the courts have found there was a lack of care, and therefore the applicator was negligent and liable for damage.

In some other crop dusting cases the courts have held applicators responsible for damage resulting from dusting without reference to carelessness or negligence. These court decisions introduce the question of strict liability in the crop dusting problem. Applicators have been held liable for damage resulting when apparently all proper precautions were taken. In these cases, damages have been awarded in the absence of negligence, the usual cause in liability proceedings. The number of these cases, however, has been relatively small, and no court has specifically imposed strict liability.

Strict Liability

Strict liability means a defendant is liable in the absence of negligence. Under this interpretation of the law, the one benefiting from an activity must pay for accidental harm. As yet, crop dusting is not included in the activities covered by strict liability interpretations of the courts. In another group of cases the courts have apparently been thinking in negligence terms, but they hold dusting itself to be negligent. Under orthodox legal theory the judges must believe that the risk of carefully conducted crop dusting outweighs its utility. However there does not appear to be anything in these cases to indicate a conscious balancing of these interests.

Ultrahazardous Defined

Strict liability has been applied to activities which are ultrahazardous. The courts have defined an ultrahazardous activity as one that involves substantial risk despite the greatest care. Drift tendencies of pesticide particles introduce a hazard in crop dusting which cannot presently be eliminated despite the greatest care. However, these uncontrollable factors involve a risk only in special instances. In dusting 2,4-D there is a risk if the herbicide is being applied to a rice field adjacent to a cotton field. But there is no risk if the adjoining field is also rice.

An ultrahazardous activity has involved a risk regardless of use to which neighboring land is put. Blasting, oil well drilling, and fumigating are typical activities which in the past have led to strict liability interpretation. Another definition of ultrahazardous activity implies that it is conducted by the few at the possible expense of the community.

The question of ultrahazardous activity may be a turning point on which liability for crop dusting and spraying damage will be decided.

Policy considerations are also important in strict liability in decisions. A Pennsylvania court, commenting on strict liability, said it is essentially a problem in "social engineering." Previously, opponents of strict liability have said the interpretation could impose an economic hardship on an industry. Counter to this idea is the contention that an industry is not socially desirable if the harm it causes outweighs the benefits produced.

It seems quite likely that the question of strict liability will be considered expressly in the future cases on crop dusting.

The relative importance of crop dusting and spraying to the agricultural and general economy of the individual state will probably be considered in any court ruling on the question.

This discussion is based on an article in the Stanford Law Review, December 1953, pages 69–90. Copies of the Review are available from: Editorial Offices, School of Law, Stanford University, Stanford, Calif., price $1.25.