Liability for Chemical Damage from Aerial Crop Dusting

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Chemical weed control by aerial crop dusting has become a very common practice in agricultural communities, even though the practice involves an unavoidable hazard of damage to neighbors' crops. After discussing the technological problems of crop dusting, and the legal problems of imposing liability for damage caused by a crop dusting operation, the author of this Note concludes that legal responsibility for this damage should be governed by principles of absolute liability.

In little more than a quarter-century since it first came into commercial use, crop dusting has become extremely important to the producers of many agricultural crops. Both experimental and commercial application has shown the process to be an effective and relatively inexpensive method of killing weeds, thereby substantially increasing production. As early as 1951, about one-ninth of the total acreage under cultivation in the United States was being treated by aerial crop dusting.

1. References to "crop dusting" are to chemical weed control in general, whether the chemical is applied in dust or spray form.

2. In an experiment conducted in Texas in 1950, cotton treated with DDT spray produced 1220 pounds per acre more than untreated cotton. This was equal to a pecuniary increase of almost $183 per acre, or almost enough to pay for the land. Caines, Use of Airplane in Cotton Insect Control, First Annual Texas Agricultural Aviation Conference and Short Course on Pest Control B-1, B-4 (March 31 and April 1, 1952) [hereinafter cited as 1st Ann. TAAAC].

3. In 1953, crop dusting was credited with increasing the California rice crop yield by 30 to 40%, and with the production of an additional 1,500,000 bushels of wheat from 500,000 acres in Canada. Authorities also estimated a 15% increase in Iowa corn production, and 20 to 25% improvement in Oklahoma livestock pasture land. Note, Crop Dusting: Legal Problems in a New Industry, 6 Stan. L. Rev. 69, 70 at nn.11-13 (1953).


Ground application has also been tried, but it has proven to be more time consuming and less successful than aerial crop dusting, and is therefore considered generally impractical. For example, in attempting to weed out the coffee bean plant from a field of growing rice, ground application is impractical because (1) the rice can be injured by persons and objects moving through the field, and (2) the fields are covered with water, so as to make such movement difficult. Hand weeding is even less practical, since in addition to these factors there is the added labor
The development of 2,4-D and other selective herbicides has been an important factor in increasing the effectiveness of chemical weed control. Since these chemicals destroy broad-leafed plants but do no harm to many narrow-leafed species, they often can be used effectively to kill weeds among growing crops. For example, selective herbicides will kill the broad-leafed coffee bean plants which commonly infest rice crops, without harming the rice. But crop dusting always involves a substantial danger that the chemical will "drift" from the area of treatment onto nearby crops that are susceptible to its destructive qualities, where it can cause extensive damage.

The purpose of this Note is (1) to discuss the technological problems of crop dusting that bear on issues of negligence, so far as negligence principles govern crop dusting damage cases, and (2) to examine theories of legal responsibility for crop dusting damage and determine whether liability should follow only from negligence or whether there should be liability without fault.

**TECHNOLOGICAL PROBLEMS**

**Herbicides**

A herbicide will destroy an entire weed plant when it is translocated, that is, distributed through the plant by the plant's own physiological processes. Since effective translocation requires that parts of the leaf remain uninjured to assist in the translocation expense. Interview with Dr. Richard Behrens, Associate Professor of Agronomy, University of Minnesota, Director of the University of Minnesota Weed Control Project, December 31, 1958.

5. Herbicides, or plant killing chemicals, are either "selective" or "nonselective," the former being used to kill only certain undesirable plants, while the latter kills all plant life indiscriminately. Fearn, Chemistry of the Pesticides 370 (3d ed. 1955).

Among the most commonly used selective herbicides are 2,4-dichlorophenoxyacetic acid (2,4-D), 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) and 2 methyl 4 chlorophenoxyacetic acid (MCP).

6. See Fearn, op. cit. supra note 5, at 371. Rice, wheat and corn are a few of the typical narrow-leaved plants; cotton, peas, tomatoes, grapes and many kinds of garden weeds are some of the common broad-leaved plants.

7. Behrens, Cotton Responses to Some Herbicides Used in Brush and Weed Control, Fourth Annual Texas Agricultural Aviation Conference and Short Course on Pest Control E-1 (February 21 and 22, 1955).

8. Even though other crops may not be damaged, the spraying operations may result in the deposit of poisons on them in amounts greater than allowed by the Federal Food and Drug laws. If this were true, the crops so poisoned would be subject to confiscation. See 21 U.S.C.A. §§ 342, 346(a) (Supp. 1958).

process, the spray must be applied in coarse droplets to avoid covering the entire leaf. Without translocation, some parts of the weed are not killed.  

Since the concentrated acid 2,4-D is insoluble it is not used as a herbicide, but it is the basic material from which several soluble derivatives are produced. Inorganic salts, amine salts and esters are three common herbicide derivatives. Inorganic salts are occasionally used for dry chemical applications, but they are generally undesirable for sprays because of their limited solubility with most spray bases. Although 2,4-D esters are slightly more effective than amine salts, they tend to give off poisonous fumes that may damage plants a considerable distance from the application site. Therefore, amine salt sprays are preferable when susceptible crops are grown near the treated fields.

Drift

The two principal natural causes of spray drift are convection and wind. Convection, the upward currents of air resulting from differences between ground and air temperature as the sun heats the earth, may suspend particles of the spray long enough even for light winds to carry them onto other lands. Moreover, sudden changes both in wind direction and velocity may cause spray to drift during any spraying operation. Since neither wind nor convection can be controlled or accurately predicted, the danger of

<table>
<thead>
<tr>
<th>Wind Velocity</th>
<th>Downwind</th>
<th>Upwind</th>
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<tbody>
<tr>
<td>0–3 m.p.h.</td>
<td>1 mile</td>
<td>½ mile</td>
</tr>
<tr>
<td>4–6 m.p.h.</td>
<td>2 miles</td>
<td>¼ mile</td>
</tr>
<tr>
<td>7–10 m.p.h.</td>
<td>4 miles</td>
<td>250 feet</td>
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drift damage to crops on nearby lands can never be completely avoided.\textsuperscript{15}

Most herbicides are available either as dusts or sprays, but sprays are preferred both for effectiveness and safety.\textsuperscript{16} Although dust drift is considered very difficult to control in winds over 3 miles per hour,\textsuperscript{17} sprays can be used in winds up to 10 or 15 miles per hour.\textsuperscript{18} The size of the spray droplets is also important, since smaller droplets drift more readily than larger ones.\textsuperscript{19} Droplet size is measured in microns, 100 to 150 microns being ideal for effective weed control. Although increasing the size of the droplet might somewhat hinder adequate coverage of the weeds, 300 to 450 micron droplets should be used to reduce the danger of drift where nearby crops are susceptible to the particular spray.\textsuperscript{20}

LEGAL RESPONSIBILITY FOR CROP DUSTING DAMAGE

Courts have reached fairly uniform results in aerial crop dusting cases. An injured party who has proved that his damage was caused by the spraying, and who was not at fault himself, has almost invariably recovered.\textsuperscript{21} But the theories of recovery adopted by the courts have been far from uniform.

Negligence

Most crop dusting cases are negligence actions brought by the owners of injured crops against both the applicator of the chemical

\textsuperscript{15} In the interview with Dr. Richard Behrens, supra note 4, it was pointed out that the unavoidable danger of drift is a fact well recognized among authorities on herbicides.

\textsuperscript{16} See Gaines, supra note 2, at B-1.

\textsuperscript{17} In 1948 the Civil Aeronautics Administration prohibited the use of 2,4-D in dust form, without restricting its continued use as a spray. CAA Bulletin No. CAA-277, June 24, 1948, 9 CIVIL AERONAUTICS JOURNAL 84 (1948).

\textsuperscript{18} Gaines, supra note 2, at B-2.

\textsuperscript{19} McCully, Some Fundamentals of Chemical Brush and Weed Control, SHORT COURSE OFFICE, A. & M. COLLEGE OF TEXAS, HANDBOOK ON AERIAL APPLICATION IN AGRICULTURE 92, 95-96 (1956).

\textsuperscript{20} Darrow, supra note 14, at 99. More detailed recommendations are available from drift tables prepared as a result of research into the causes of drift. See Barden, supra note 17, at 44. The following table is presented there, showing the drift factor at various droplet sizes, falling 10 feet through air movement of 3 m.p.h.:

<table>
<thead>
<tr>
<th>Drop Diameter Microns</th>
<th>Drift</th>
</tr>
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<tbody>
<tr>
<td>10</td>
<td>5280 feet</td>
</tr>
<tr>
<td>20</td>
<td>1000 feet</td>
</tr>
<tr>
<td>40</td>
<td>900 feet</td>
</tr>
<tr>
<td>100</td>
<td>50 feet</td>
</tr>
<tr>
<td>200</td>
<td>17 feet</td>
</tr>
<tr>
<td>500</td>
<td>5 feet</td>
</tr>
</tbody>
</table>

\textsuperscript{21} Thirty aerial crop dusting cases have reached appellate courts since 1933. The plaintiff has recovered for his damage in twenty-one of these, while losing in
and the owner of the land being treated. The claim against the landowner is generally based on vicarious liability for the negligence of the applicator, and in only a few cases has the landowner been held liable for failure to act as a reasonable and prudent person. The landowner's vicarious liability has followed from the rule that one cannot wholly delegate the legal responsibility for an "inherently" or "intrinsically" dangerous act, even to an independent contractor.

Courts consistently imply that the plaintiff can recover only after proving that the spraying operation causing his damage was conducted negligently, and in most cases where the applicator is held

only nine. In three of these nine cases, the plaintiff's loss was based on governmental immunity. See Harris v. United States, 205 F.2d 763 (10th Cir. 1953); Neff v. Imperial Irrigation District, 142 Cal. App. 2d 755, 299 P.2d 399 (Dist. Ct. App. 1957); Rabin v. Lake Worth Drainage District, 82 So. 2d 353 (Fla. 1955), cert. denied, 350 U.S. 958 (1956). In two (the "trespassing bee" cases) there was no drift, and the plaintiff's damage was caused by his own negligence. See Lenk v. Spezia, 95 Cal. App. 2d 296, 213 P.2d 47 (Dist. Ct. App. 1949); Jeanes v. Holz, 94 Cal. App. 2d 856, 211 P.2d 925 (Dist. Ct. App. 1949). In Alm v. Johnson, 75 Idaho 321, 275 P.2d 959 (1954), the plaintiff failed to prove actual damage, and the court refused to reverse for nominal damages only. In Pruet v. Burr, 118 Cal. App. 2d 188, 257 P.2d 690 (Dist. Ct. App. 1953), the plaintiff failed to prove causation. In only two cases has an innocent plaintiff who proved causation failed to recover. See Walton v. Sherwin-Williams Co., 191 F.2d 277 (8th Cir., 1951); Vrazel v. Bieri, 294 S.W.2d 148 (Tex. Civ. App. 1956). These are discussed infra.

22. There has also been some attempt to hold the manufacturer of the chemical liable, relying on the doctrine of McPherson v. Buick Motor Co., 217 N.Y. 382, 111 N.E. 1050 (1916). This doctrine is discussed in Prosser, Torrs 499-500 (2d ed. 1955). Liability was successfully imposed upon the manufacturer under this doctrine in Chapman Chemical Co. v. Taylor, 215 Ark. 630, 222 S.W.2d 820 (1949), 3 Vand. L. Rev. 941 (1950); but two years later, in Walton v. Sherwin-Williams Co., 191 F.2d 277 (8th Cir. 1951), the opposite result was reached. In Walton the court said that the manufacturer could not be held liable where the users of the product understood its dangerous propensities. Since the Walton decision the dangerous characteristics of 2,4-D have been considered matters of common knowledge to farmers, and no more actions have been successfully maintained against the manufacturer.


24. These are all ground applicator cases. See, e.g., Faire v. Burke, 363 Mo. 562, 252 S.W.2d 289 (1952).

25. See Prosser, op. cit. supra note 22, at 359-61. In a recent Arkansas case, Heeb v. Prysock, 219 Ark. 899, 245 S.W.2d 577 (1952), the defendant attempted to escape this vicarious liability rule by alleging that he was not negligent in choosing a recommended spray and a competent applicator, and that to hold him liable in those circumstances would have the effect of making him an insurer. The court rejected the argument without discussion.

26. See cases cited in note 27, infra. In Burns v. Vaughn, 216 Ark. 128, 224 S.W.2d 365 (1949), the court stated that "one who uses a dust of this kind is not liable to his neighbors in every case; negligence must be shown." Id. at 129, 224 S.W.2d at 365. In Vrazel v. Bieri, 294 S.W.2d 148 (Tex. Civ. App. 1956), the plaintiff failed to recover because of his failure to prove negligence.
to have acted negligently there is ample evidence that he did fail to use reasonable care. However, only one court has held that absent such evidence of negligence there can be no recovery. In *Vrazel v. Bieri*, a Texas Civil Appeals Court case, the plaintiff established the causal connection between the crop dusting and his damage, but failed to prove that the defendants had in any way acted unreasonably. On appeal from a judgment for the defendants, the plaintiff argued that as a matter of law the existence of some drift and resulting damage should be sufficient evidence of negligence. The court rejected this contention because it would impose strict liability on the defendants. But since the *Vrazel* court recognized no doctrine of strict liability under Texas law, it did not consider the question whether a crop dusting operation is distinguishable from activities that can lead to strict liability in other jurisdictions. Therefore, this case is very poor authority to support the proposition that absolute liability should not apply to crop dusting damage cases.

Several courts have upheld findings of negligence which apparently were based solely on evidence that some spray drifted onto the plaintiff's land and caused damage. Perhaps these courts consider the act of spraying, in itself, to be unreasonable. These decisions, in effect, make the applicator and the landowner absolutely liable for all damage caused by the crop dusting operation.

**Strict Liability**

Only one court has expressly applied strict liability concepts to a crop dusting case. In *Gotreaux v. Gary*, the Supreme Court of

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27. See, e.g., Heeb v. Prysock, 219 Ark. 889, 245 S.W.2d 577 (1952) (plane flew over the plaintiff's crops and dusted them); W. B. Bynum Cooperage Co. v. Coulter, 219 Ark. 818, 244 S.W.2d 955 (1952) (application done at a time when the prevailing winds were possibly excessive, and the hiring landowners were not sure if the plane was equipped with a proper cut-off mechanism); McKennon v. Jones, 219 Ark. 671, 244 S.W.2d 138 (1951) (plane flew over and dusted the plaintiff's apiary); Burns v. Vaughn, 218 Ark. 125, 224 S.W.2d 305 (1949) (application done at a time when the winds were excessive); Hammond Ranch Corp. v. Dodson, 199 Ark. 846, 136 S.W.2d 484 (1940) (plane flew over the plaintiff's crops and dusted them); Pendergrass v. Lovelace, 57 N.M. 661, 262 P.2d 231 (1953) (plane flew over the plaintiff's crops and dusted them); Burke v. Thomas, 313 P.2d 1082 (Okla. 1957) (plane overshot flagmen who were marking the boundaries of the fields to be treated and flew over and dusted the plaintiff's crops).


29. Id. at 151–52.


31. Some courts have reached the same result by finding negligence in spraying at a time when it was "reasonably foreseeable" that the landowner's neighbors might be injured. See, e.g., Lundberg v. Bolon, 67 Ariz. 259, 194 P.2d 454 (1948); Miles v. A. Arena & Co., 23 Cal. App. 2d 680, 73 P.2d 1260 (Dist. Ct. App. 1937).

32. 232 La. 373, 94 So. 2d 293 (1957), 32 Tul. L. Rsv. 146.
Louisiana held that the defendants were liable “irrespective of the fact that the activities resulting in damages [were] conducted with assumed reasonable care and in accordance with modern and accepted methods.” In that case, the plaintiff was raising cotton and peas about three miles from the defendant-landowner’s rice crops. Immediately after the rice was sprayed, a high wind arose and carried some of the 2,4-D spray onto the plaintiff’s crops, causing nearly $2500 damage. The trial court found no sufficient evidence of negligence in the spraying operation, and dismissed the plaintiff’s actions against both the applicator and the defendant-landowner. On appeal, the state supreme court said:

Rice is one of the most important crops of Louisiana and its proper cultivation necessitates the application of herbicides. However, plaintiff could not be deprived of the privilege of raising to production his cotton and pea crops because of defendants’ use of spraying operations.

The court reversed the lower court’s judgment, reasoning that “negligence or fault, in these instances, is not a requisite to liability.”

Two concepts of the strict liability doctrine prevail among American courts. The Rylands v. Fletcher rule requires damage caused by “non-natural” use of the defendant’s land, while the rule of the

33. Id. at 378, 94 So. 2d at 295 (1957). See also Chapman Chemical Co. v. Taylor, 215 Ark. 639, 645–44, 222 S.W.2d 820, 827 (1949), where the manufacturer of a 2,4-D dust was held liable to the plaintiff who was injured by spray drifting onto his crops. The Arkansas court relied heavily on Luthringer v. Moore, 31 Cal. 2d 489, 190 P.2d 1 (1948), for the proposition that “if one casts into the air a substance which he knows may do damage to others, and in some circumstances will certainly do so . . . , and if he releases such a substance either from ignorance of, or in indifference to the damage that may be done, the rule of strict liability should be applied.” The Luthringer case adopted the ultrahazardous activity rule of the Restatement of Torts. See Restatement, Torts §§ 519–24 (1938). Although the Chapman case is no longer the law on liability of 2,4-D manufacturers (see note 22 supra), it may still be reliable authority that in Arkansas, 2,4-D spraying is within the doctrine of ultrahazardous activity which, under the Restatement rule, would lead to absolute liability on the applicator or the hiring landowner. See Prosser, Selected Topics on the Law of Torts 135, 155 at n.137 (1953).

34. 232 La. at 377, 94 So. 2d at 294.

35. Id. at 378, 94 So. 2d at 295. This holding was restated in Jones v. Morgan, 98 So. 2d 109 (La. Ct. App. 1957), where the spraying was found to have been done negligently. The court stated that the evidence was sufficient to support a finding of negligence, but such a finding was not necessary since strict liability would apply. Id. at 113.


37. In discussing the principle of Rylands v. Fletcher, Professor Prosser has stated that despite some apparent confusion as to whether “natural” was used in the sense of originating in the course of nature or merely ordinary, normal, customary and common, it seems clear that the latter was the meaning intended. In determining what is a “non-natural use” the English courts have looked not only to the character of the thing or activity in question, but also to the place and manner in which it is maintained and its relations to its surroundings. . . .
Restatement of Torts requires damage resulting from some “ultra-hazardous activity” which is “not a matter of common usage.” These rules have been subjected to extensive analysis and interpretation both by courts and legal scholars, and no attempt is made in this Note to determine their precise meaning. It is not clear, however, and perhaps it is even doubtful, that crop dusting should be considered either “non-natural” or “uncommon” usage of the farmer’s land. Nevertheless, refusal to impose strict liability merely because crop dusting may not come within the technical definition of these rules would ignore the fundamental question: As a practical matter, who ought to bear the risk of damage from crop dusting operations?

Comparison of the two concepts

The technological advances of commercial crop dusting should be encouraged by the law only if potential benefits to agriculture far outweigh the necessary risks of unavoidable harm to others in the community. Since the risk of damage varies tremendously among agricultural areas, depending upon the type and amount of susceptible crops within the drift danger zone, the law should encourage crop dusting in areas where the benefits do sufficiently outweigh the risks and discourage it in other areas. The rule determining who is to bear the risk of loss from crop dusting damage

The place where all this occurs, the customs of the community, and the natural fitness or adaptation of the premises for the purpose, all are highly important in determining whether the rule applies. . . .

In short, what emerges from the English decisions as the true “rule” of Rylands v. Fletcher is that the defendant will be liable when he damages another by a thing or activity inappropriate to the place where it is maintained.

PROSSER, SELECTED TOPICS ON THE LAW OF TORTS 135, 140–47 (1953). (Footnotes omitted.)

38. See Restatement, Torts § 519 (1938) which provides:

The general rule is that one who carries on an ultrahazardous activity is liable to another whose person, land or chattels the actor should recognize as likely to be harmed by the unavoidably miscarriage of the activity for harm resulting thereto from that which makes the activity ultrahazardous, although the utmost care is exercised to prevent the harm.

Section 520 defines an ultrahazardous activity as one which:

(a) necessarily involves a risk of serious harm to the person, land or chattels of others which cannot be eliminated by the exercise of the utmost care, and

(b) is not a matter of common usage.

See also comment e to section 520.


41. This is probably the single most important factor, although climatic conditions peculiar to a particular locality are also relevant in determining the degree of risk that some unavoidable drift damage will occur.
NOTES

should promote this social policy, as well as impose the risk on the party who in all fairness should, and is best able to bear that risk.

Three alternative courses are open to the courts: (1) to impose liability on the defendants only if the spray was negligently applied; (2) to impose liability on the defendants for negligence, even if the application was faultless, whenever the risk of damage was so high that spraying was unreasonable in itself; and (3) to impose absolute liability on the defendants for all damage proximately caused by the crop dusting operation.

The first alternative clearly encourages crop dusting, but it goes too far. Since damage can result from faultless application, this rule would completely fail to discourage crop dusting even where the risk of damage makes the operation unreasonable in the particular locality. Moreover, this rule is subject to a more basic objection. The hiring landowner, who will make the decision whether or not to have his crops sprayed, need only balance the potential increase in his income against the cost of having the crops sprayed. He is never forced to consider the question that is essential to determining if crop dusting is desirable in his locality; that is, whether or not the potential benefits of the operation would sufficiently outweigh the risks of resulting damage. Finally, this rule would force all the losses from careful crop dusting operations on the injured party who has no way of avoiding them or passing them on to others. Even a glance at the cases will reveal that these losses can be very extensive. If the defendant-landowner were forced to bear the risk of loss, he could treat it as a cost of the potential increase in crop production. And since the landowner chose to spray his crops to

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42. Liability insurance for the protection of those likely to be injured by aerial chemical weed control is generally unavailable. See the discussion of available forms of insurance, notes 50–53 infra.


[In cases involving ultra-hazardous activities], because of its importance to the public the activity is not considered unlawful, but absolute liability is imposed either because the risk of harm is great or because an accident, while it is unlikely to occur, would be catastrophic if it should occur.

Seavey, Principles of Torts, 56 Harv. L. Rev. 72, 86 (1943). (Emphasis added.)

44. Scholarly proponents (whose ideas are reflected in some legislation and an occasional judicial opinion) applaud liability without fault for good risk bearers. Their argument usually runs this way: One who should know that his activity, even though carefully prosecuted, may harm others, should treat this harm as a cost of his activity.

Morris, Torts 247 (1953).

Fault is still no doubt the dominant principle of liability. There is a growing belief, however, that in this mechanical age the victims of accidents can, as a class, ill afford to bear the loss; that the social consequences of uncompensated loss are of far greater importance than the amount of the loss itself; and that better results will come from distributing such losses among all the beneficiaries
further his commercial enterprise, knowing that others would necessarily be subjected to risk of substantial damage, it is fairer that he bear any resulting losses.  

The second alternative, which would impose liability on the defendant-landowner for spraying when the high risk of damage to others made spraying unreasonable in itself, would force the hiring landowner to consider the risk of damage when deciding whether or not to spray his crops. But in those cases where the landowner's decision is not found to be unreasonable, the injured party must still bear the burden of unavoidable damage losses; and the increasing popularity of crop dusting throughout the country might make juries reluctant to consider the mere act of spraying unreasonable, especially if crop dusting is a common practice in the particular locality.

The third alternative—absolute liability—would, of course, relieve the injured party of the burden of his losses. It would also discourage crop dusting in areas where the risk of damage to others is relatively high, since the hiring landowner would have a comparatively high risk of financial loss. But perhaps absolute liability would discourage crop dusting altogether. If the individual landowner were forced to pay for the resulting damage out of his own pocket, he might refuse to do any crop dusting. However, if the cost of the damage can somehow be spread among all the farmers who have their crops sprayed, the individual farmer is never faced with the risk of an overwhelming loss; each farmer need only consider whether his potential increase in crop production will sufficiently exceed his share of the total crop dusting damage. True, any rule imposing liability on the defendant in cases where damage is not caused by negligent application will discourage him from crop dusting, but only to the extent that it would follow the doctrine that "the defendant's enterprise, while it will be tolerated by the law, must pay its way."  

of the mechanical process than by letting compensation turn upon an inquiry into fault.


45. In discussing “enterprise liability without fault,” Professor Ehrenzweig has observed that the proper inquiry is not whether the results of a particular act were “reasonably foreseeable,” but rather “whether liability can be fairly imposed upon the [defendant] in those cases because the harm was typical for its activities, and thus calculable and reasonably insurable.” Ehrenzweig, Negligence Without Fault 58. (Emphasis added.)

46. Prosser, op. cit. supra note 22, at 317.

This concept of enterprise liability without fault has been recognized by most torts authorities. See, e.g., Ehrenzweig, op. cit. supra note 45, § 16; Morris, op. cit. supra note 44, §4; Prosser, op. cit. supra note 22, at 317; Seavey, supra note 43, at 86.

Referring to this concept in 1941, Professor Prosser wrote:
Assuming some method of spreading the risk among all the hiring landowners is available, or can be devised, the position taken by the Louisiana Supreme Court in the *Gotreaux* case seems to be the most reasonable approach to resolving crop dusting damage cases. The next section of this Note will consider methods of spreading this risk.

**Distribution of Loss**

Under the *Gotreaux* rule both crop dusters and hiring landowners will be strictly liable for crop dusting damage. Either group can

In general, this new policy has found expression where, even though the defendant's conduct is socially desirable, the danger which it threatens to others is unusually great, and will be great even though the enterprise is conducted with every possible precaution.

PROSSER, TORTS §56, at 429 (1941). Ten years later, Professor Ehrenzweig cited the above quoted portion from Prosser, *Torts* with approval, stating that:

[The] rationale has become increasingly obvious: Exposing the community to risk, rather than causation of the individual harm, has become the basis of [enterprise] liability.

EHRENZWEIG, op. cit. supra note 45, at 55. These two authorities had apparently agreed that the important test for the enterprise liability policy turned on whether there was intentional exposure of the community to foreseeable and unavoidable dangers ("unusually great" dangers, in Professor Prosser's opinion). However, the later edition of Professor Prosser's book, in turn citing Professor Ehrenzweig's book with approval, added the italicized phrase to his statement of the policy:

This new policy frequently has found expression where the defendant's activity is unusual in the community, and the danger which it threatens to others is unusually great and will be great even though the enterprise is conducted with every possible precaution.

PROSSER, op. cit. supra note 22, at 317. (Emphasis added.) No explanation is given for the change; perhaps it indicates a strong influence of the technical absolute liability rules of *Rylands v. Fletcher* and the Restatement of Torts on this enterprise liability doctrine. Whether or not the "unusualness" limitation will be applied generally to the doctrine, there is probably no reason, aside from historical hangover, for applying that limitation to cases where there is: (1) commercial activity, like crop dusting, that (2) necessarily involves a great risk to others (3) of extensive damage (4) which cannot be avoided by any amount of precaution save abandoning the enterprise. See MONAINS, op. cit. supra note 44, at 247; Seavey, supra note 43. See generally Gregory, *Loss Distribution in Torts*, 45 Va. L. Rev. 63 (1959); Niccolini, *Liability Without Negligence*, 1954 Ins. L.J. 557.

47. In *Gotreaux* the court held both the hiring landowner and the independent contractor absolutely liable. The court recited a Louisiana statute providing: "Although a proprietor may do with his estate whatever he pleases, still he cannot make any work on it, which may deprive his neighbor of the liberty of enjoying his own, or which may be the cause of any damage to him." 232 La. at 377–78, 94 So. 2d at 294. The court was criticized for misapplication of the statute in 32 Tul. L. Rev. 146 (1957). But case law establishes that the statute was not necessary to holding the landowner liable. The landowner is absolutely liable even though the crop duster is an independent contractor. See Stocker v. City of Richmond Heights, 235 Mo. App. 277, 182 S.W.2d 1116 (1943). The landmark *Rylands v. Fletcher* case itself resulted in liability of a hiring landowner for damage caused by an independent contractor. Although the contractor had been negligent in that case, the Court of Exchequer said:

The view which we take of the first point [the landowner's absolute liability] renders it unnecessary to consider whether the defendants would or would not
distribute the loss among the hiring landowners, in proportion to
the amount of crop dusting done, by obtaining some form of insur-
ance and charging that protection off as a cost of the spraying
operation.

**Applicators' methods of insurance**

Liability insurance covering crop dusting damage is the simplest
and most obvious means of protection for the applicator. The
periodic expense of this insurance could easily be shifted to his
landowner customers. However, since crop dusting is a peculiarly
hazardous business, most insurance companies have refused to
underwrite the crop duster’s liability for damage from chemical
drift, although a few companies are willing to insure crop dusters
who are skilled and experienced in aerial spraying, provided all the
ordinary underwriting standards are met.

A crop duster also may self-insure his own operations, either
because he cannot obtain liability insurance or because he is willing
to gamble against extraordinary losses to avoid paying the high
insurance premiums. The self-insuring crop duster would first esti-
mate what his damage experience is likely to be over a number of
years. Then, by creating a reserve for damage liability and periodi-
cally expensing a proportionate amount of that reserve, he could
distribute the cost of his self-insurance to his customers through the
price he charges for his services. Of course, self-insurance affords
adequate protection only to the applicator who has sufficient capital
to withstand a substantial loss at any time.

**Hiring landowner's methods of insurance**

The landowner could avoid the danger of extensive financial loss
from crop dusting damage if liability insurance were available to

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be responsible for the want of care and skill in the persons employed by them,
under the circumstances stated in the case.

the court held that an independent contractor who was blasting during construction
work for a city was absolutely liable and was not protected by the city's immunity
from such liability.

48. A survey was taken of the twenty-five leading insurance companies in the
United States that underwrite liability coverage for property damage other than
that resulting from automobile accidents. Of the companies replying, not one stated
a willingness to insure crop dusters, although several referred to special aviation
insurance groups who would, under the proper circumstances, issue such coverage.

49. Some insurers will write such coverage, but only on an individual rather than a
class basis, and only after careful consideration of the particular crop duster and
his intended activities. Interview with Mr. William Pest and Mr. Paul Kennedy of

The imposition of absolute liability in crop dusting cases would probably increase,
rather than decrease, the availability of liability insurance coverage to the applicator,
since the additional demand for such coverage would encourage insurers to under-
write the risk.
him, although he might be forced to pay twice—once in the added cost of the spraying service necessary to cover the contractor's liability insurance, and again in the premium for his own policy. But a farmer's comprehensive liability policy will almost invariably exclude damage from aerial crop dusting, and normally the companies are unwilling to extend insurance coverage to include this type of damage. However, a company insuring the independent contractor hired to spray the crops may be willing to include the landowner as an additional insured under the contractor's policy, for a nominal additional premium.

Even though liability insurance may be unavailable, the landowner can protect himself against bearing the entire loss by insisting that the contract with the applicator provide for indemnification of any amounts the landowner is forced to pay to satisfy his liability for crop dusting damage. This type of indemnity provision is probably the only kind of protection available to the landowner who cannot obtain liability insurance coverage.

CONCLUSION

To determine whether chemical weed control by aerial crop dusting should be employed in a particular community, without unreasonably discouraging all crop dusting, the law must force farmers to weigh their potential gains against a proportionate share of the risk of damage loss. To this end, the following legislation would be desirable. First, the states should enact statutes making applicators absolutely liable for all crop dusting damage. Second, applicators should be required by statute to carry adequate liability insurance, or, in the alternative, to post a bond assuring financial responsibility adequate to cover crop dusting damage. These

50. One of the insurance company replies received in the survey (see note 50 supra) stated:
If [the spraying] operation is conducted on land, the Farmer's Comprehensive policy would cover the farmer's legal liability for damage to property of others. The policy excludes injury to or destruction of property arising out of any substance released or discharged from any aircraft in connection with dusting or spraying operations.

51. The same letter referred to in note 50 supra also stated:
While our company does not write, other than through pools, direct Aircraft Liability insurance, we usually recommend that the farmer secure his coverage by being named as an additional insured under the contractor's Aircraft policy. Since we do not write the Aircraft Liability coverage, we are not familiar with the additional premium required, but our understanding is that the farmer may be named as an additional insured on the contractor's policy at a nominal additional premium.

52. Almost half of the states have existing legislation for the regulation of crop dusters. These generally require the applicator to obtain a permit and submit his equipment for inspection, and in many states to submit reports of his activities. See ARIZ. REV. STAT. ANN. §§ 3–971 to 3–985 (1956); CAL. AGRIC. CODE §§ 160.1–160.96; COLO. REV. STAT. ANN. §§ 6–14–1 to 6–14–14 (1953); IDAHO CODE ANN. §§ 22–2208 to 22–2250 (Supp. 1957); KAN. GEN. STAT. ANN. §§ 8–901 to 8–910
provisions would protect the injured property owners, and therefore it would be unnecessary to also hold the hiring-landowners absolutely liable for the damage. The burden of losses ultimately would be distributed to the hiring-landowners through the cost of spraying services.

Absent the suggested legislation, courts should adopt the Gotreaux rule holding applicators and hiring-landowners absolutely liable for crop dusting damage. This would force crop dusters who are unwilling to risk ruinous loss either to voluntarily obtain liability insurance, or to adopt reasonable self-insurance plans. The loss from each occurrence of damage could then be forced onto the crop duster by an indemnity provision in the spraying contract, or by inclusion of the landowner under the crop duster's insurance policy. The applicator can then distribute the loss among all farmers who have their crops sprayed.


Some states have statutes prohibiting the dropping of objects from planes in flight. See, e.g., MINN. STAT. § 360.075(15) (1957) which provides that "every person who . . . [while operating an aircraft] drops any object except loose water or loose sand ballast . . . shall be guilty of a misdemeanor." These statutes could have some relevance to crop dusting if spraying or dusting were interpreted as dropping an "object" within the meaning of the statute. The Wisconsin "falling object" statute expressly excludes crop dusting operations, but only where those operations are done in accordance with the Federal rules controlling them. Wis. STAT. ANN. § 114.095 (1957). As yet there have been no crop dusting damage claims under these statutes.

See also 14 C.F.R. § 60.1-2, providing certain requirements for the obtaining of Certificates of Waiver from Federal Air Traffic Rules in order to permit crop dusting to be done at low altitudes.