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for Overspray and Chemical Drift
Caused by Aerial Application in
Arkansas, Louisiana, and Mississippi**

by

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A TALE OF THREE STATES: LIABILITY FOR OVERSPRAY AND CHEMICAL DRIFT CAUSED BY AERIAL APPLICATION IN ARKANSAS, LOUISIANA, AND MISSISSIPPI

*Robert W. Luedeman**

INTRODUCTION: WHAT GOES UP COMES DOWN — SOMEWHERE

The idea of using an airborne vehicle as a means of gaining an advantage over the rest of the material world is about as old as flight itself and one that probably occurred to the Montgolfier brothers. History tells us that balloons were used to carry airborne artillery observers in our Civil War. It no doubt occurred to other aeronauts early on that airborne vehicles were good platforms for carrying and dropping things, an idea that lends itself to many aspects of agriculture. It is also an idea that sometimes brings aviators, farmers, and bystanders into conflict.¹

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¹ See *Guille v. Swan*, 19 Johns. 381 (N.Y. Sup. Ct. 1822). This may be the first recorded aviation case in the United States, and it is of interest to agriculturalists because it involves damage to crops. Guille, a balloonist, made an unplanned descent into Swan's garden and damaged his radishes and potatoes. Guille's cries for help caused a large crowd to gather which resulted in more damage to the garden. Holding Guille liable for all the damage occasioned by the fall of his balloon, the court held that an unplanned descent of a balloon is foreseeable, and thus the aeronaut is responsible for the consequences that flow from such a descent. The court thus established a rule of strict liability for the consequences of aviation accidents, a doctrine by which many aviation cases have been decided, at least until the judicial view of aviation as a

The process of aerial application of agricultural chemicals is well suited to the way agriculture is practiced in much of the Mississippi Delta. The interplay between methods of application in use, the type of material in use, and the nature of farming in the region have combined to produce a recurring problem with chemical drift damage that has been the subject of numerous lawsuits with similar fact patterns. Large level fields are well suited to aerial application of herbicides and insecticides as well as aerial seeding of rice paddies. However, cultivation of rice and other grass crops exists in close proximity to farms that raise cotton, food crops, fish, poultry, livestock, and bees; all of which are sensitive to the misapplication of agricultural chemicals.² Broadleaf herbicides may do little damage to a growing grass crop like rice but can severely damage broadleaf crops in nearby fields.³ When fields are in more or less continuous production as they sometimes are in the Mississippi Delta region, a further issue of application timing arises that can bring neighboring farmers into conflict. What may be good for one farmer at a particular point in the crop cycle can be disastrous for the neighbor who operates on a different timetable.

In addition, much of the area under discussion is timbered, and aerial pest control is a widely used timberland management practice in those areas.⁴ Thus, the potential exists for significant damage when agricultural or silvicultural chemicals are carelessly applied, or when forces beyond the control of the applicator cause the applied chemical to stray from the target area.

Many factors can combine or interact to create a potential for aerially applied chemicals to migrate from their point of intended applica-

risky business was discarded. The case also illustrates that aviation is of intense interest to crowds.

² See generally *Boroughs v. Joiner*, 337 So.2d 340 (Ala. 1976) (damage to fish ponds); See also Jay V. Huner & Harry K. Dupree, *Pond Management*, in U.S. DEP'T INT. FISH & WILDLIFE SER., THIRD REPORT TO THE FISH FARMERS 36-37 (Harry K. Dupree & Jay V. Huner eds., 1984). Poultry growing, of course, is generally carried on under cover, although most poultry barns have large movable curtains to regulate ventilation. Some other farm-raised fowl such as ducks and geese, and the larger species such as turkeys and ratites, are generally raised in the open and thus can be adversely affected by chemical drift. In both cases, however, water contaminated by chemical runoff or drift could well cause animals or fowl that come into contact with such water to be injured or unthrifty.

³ See generally Jonathan Purver, *Cropduster's Failure To Exercise Care In Spraying Crops*, in 9 AM. JUR. PROOF OF FACTS 2D 623, 636 (1976).

⁴ See J.S. Yuill & C.B. Eaton, *The Airplane In Forest Pest Control*, in U.S. DEP'T OF AGRIC., Y.B. AGRIC., 1949: TREES 471 (1949).

tion. Wind, aerodynamic forces created by the passage of the aircraft through the air at varying altitudes, the size of the spray droplets or dust particles, convection currents, temperature gradients, and humidity all have a significant effect on the distribution of the product thus applied.⁵ In addition, the condition of the equipment being used, the formulation of the chemical and its vehicle, the level of chemical concentration, and the expertise and care of the applicator and his/her crew are major factors in determining whether the chemical reaches its target or strays.

Aerial application of agricultural chemicals also involves a broad application of material to a narrow environmental focus.⁶ Thus, inherent in the aerial application of pesticides or herbicides is the fact that much of the material will reach the environment in unanticipated ways that represent significant sources of potential liability for the farmer. Popular concern with matters of health, particularly with pesticide residues in foods, imposes a responsibility of care on the producers of food crops who choose to use aerial application methods, or who are near other food producers who may choose not to use pesticides.⁷ An additional phenomenon to be reckoned with is cross-contamination of food crops by agricultural chemicals not permitted in the food industry. Either by error or by intent, chemicals not permitted in the production of food crops may appear in areas where food is produced, particularly where cotton fields are adjacent to fields that produce garden truck.⁸

It goes without saying that the potential for lasting injury to agricultural workers,⁹ animal life, rural residents and aerial applicators themselves is an ever present hazard which demands the utmost care and

⁵ See generally J.S. Yuill et al., *Research on Aerial Spraying*, in U.S. DEP'T OF AGRIC., Y.B. AGRIC., 1952: INSECTS 252 (1952).

⁶ See *Pesticide Action Network Updates Service*, Sept. 12, 1996 (visited Oct. 29, 1997) <<http://www.panna.org>>. Dr. Marion Moses of the Pesticide Education Center estimates that 50% to 75% of aerially applied pesticides never reach their target.

⁷ See James Tobin, *Health Scares*, DES MOINES REG., Oct. 27, 1997, at 3T.

⁸ See generally *Crouse v. Wilbur-Ellis Co.*, 272 P.2d 352 (Ariz. 1954) (damage caused by cotton insecticide drifting onto melons). Another aspect of this issue is that consumers cannot directly influence the growing practices of farmers in other countries, and pesticides are used overseas that are restricted or banned in the United States, although these compounds may be, in fact, manufactured domestically for export. See also 7 U.S.C. § 1360 (1994).

⁹ See *Pesticide Action Network Updates Service*, Sept. 13, 1996, (visited Oct. 29, 1997) <<http://www.panna.org>> (describing an incident in which 22 farm workers engaged in picking grapes were poisoned by drifting pesticide applied to a nearby cotton field).

strictest attention to proper application practices and equipment maintenance to reduce or eliminate the risk of accident. Farmers who choose to use the services of aerial applicators may well be held liable for the torts of their independent contractors under a theory of agency, and that alone is a strong argument for close oversight and supervision.¹⁰

I. FOUNDATIONAL LEGAL MATTERS

A. *S.A. Gerrard Co. v. Fricker*¹¹

By 1933, the first reported cropdusting liability case had been adjudicated by a state supreme court, and the case has had important consequences for the development of cropdusting case law in other jurisdictions, particularly Arkansas. *Gerrard* is worthy of examination in some detail due to its fundamental role in the evolution of crop dusting law in Arkansas and elsewhere. Some argue that the case rested on shaky precedential footings.¹² Others conclude that the case established a rule of strict liability for aerial application of agricultural chemicals in states that follow the decision, a view that is, in this writer's opinion, misinformed.¹³

Gerrard was a lettuce grower in Chandler, Arizona whose property adjoined a commercial apiary operated by Fricker.¹⁴ *Gerrard* hired the Hawks Crop Dusting Company to spray its lettuce fields because of an infestation of worms.¹⁵ Whether by chance, wind drift, or negligence, arsenic dust fell or was sprayed on Fricker's apiary and destroyed or injured a substantial number of bee colonies.¹⁶

Gerrard argued four points of error on appeal, although only the first is of real importance to the discussion at hand.¹⁷ In this central

¹⁰ See generally RESTATEMENT (SECOND) OF AGENCY §§ 140-142 (1957).

¹¹ *S.A. Gerrard Co. v. Fricker*, 27 P.2d 678 (Ariz. 1933).

¹² See Peter J. McBreen, *Legal Implications of Agricultural Aviation*, 18 J. AIR L. & COM. 399, 401-03 (1951).

¹³ *Id.* See also Richard D. Chappuis, *The Flight of the Toxic Tort-Aerial Application of Insecticides and Herbicides: From Drift Liability to Toxic Tort*, 58 J. Air L. & Com. 411, 415 (1992).

¹⁴ *S.A. Gerrard Co.*, 27 P.2d at 679.

¹⁵ *Id.*

¹⁶ *Id.* But see *Lenk v. Spezia*, 213 P.2d 47 (Cal. Ct. App. 1949); *Jeanes v. Holtz*, 211 P.2d 925 (Cal. Ct. App. 1949). In these cases dealing with apiaries poisoned by pesticides, the courts actually subscribed to the notion that the insects were trespassers on another's land and got more or less what they deserved.

¹⁷ *S.A. Gerrard Co.*, 27 P.2d at 679. The other three points of appeal were: 1) that

point of appeal, Gerrard argued that Hawks was an independent contractor, and hence solely liable for its own torts.¹⁸ The Arizona Supreme Court stated the rule that Arkansas was later to follow:

[A]s a general rule the employer is not liable for the negligence of an independent contractor. There are, however, exceptions to this general rule. One of the exceptions is that the law will not allow one who has a piece of work to be done that is necessarily or inherently dangerous to escape liability to persons or property negligently injured by another to whom he has contracted such work. This is especially true where the agency or means employed to do the work, if not confined or carefully guarded is liable to invade adjacent property and destroy or damage it.¹⁹

Two important points were brought out in the decision. First, the court set forth a rule of nondelegability which would later be adopted by Arkansas in similar circumstances and second, the apiarist was under no obligation to replace destroyed colonies as a form of mitigation necessary to recover damages.²⁰ The case did not, as some suppose, adopt a rule of strict liability for aerial application of pesticides as a per se ultrahazardous activity.²¹ Careful reading of the language employed by the court reveals that, rather than ruling that cropdusting is an inherently hazardous activity for which strict liability rules could be invoked, the court adopted nondelegability as an exception to the rule that insulates employers from liability for the negligence of contractors in cases where the activity requires more than ordinary care.²² The court stated that Gerrard was within its right to dust the lettuce field but because of the likelihood of drift could not shield itself from liability by employing independent contractors.²³

The significance of the decision for farmers, rural residents, farm workers, and agricultural lawyers is, of course, the selfsame rule of nondelegable liability for employers of aerial applicators. The Arizona court found support for its rule in two cases that have little enough to do with pesticides, but much to do with agency, dangerous instrumentalities, and employer liability for contractor torts.

The first case concerned an owner of a building that had businesses

Fricker did not show that the substance that killed his bees was poisonous; 2) that jury instructions describing the substance as a poison were erroneous; and 3) that the jury's award of damages was excessive.

¹⁸ *Id.*

¹⁹ *Id.* at 680.

²⁰ *Id.* at 680-81.

²¹ See Chappuis, *supra* note 13.

²² *S.A. Gerrard Co. v. Fricker*, 27 P.2d 678, 688 (Ariz. 1933).

²³ *Id.*

on the ground floor and apartments above.²⁴ The rental agent hired an exterminator to rid the second floor apartment of insects and vermin, and he did so without warning the third floor tenant.²⁵ As a result of gas seeping through the floor, Mrs. Medley, a woman of weak constitution, suffered a stroke and perished.²⁶ Trenton argued against liability on the theory that the rental agency had no authority to contract for such services and that in any event it was not liable for the torts of independent contractors.²⁷ After rejecting the agency argument the court turned to Trenton's liability argument. It held that the general rule of employer nonliability for the negligence of an independent contractor gives way when performance of the work in the ordinary manner is dangerous unless proper precautions are taken.²⁸

The second case relied on by the Arizona Supreme Court was a Kansas case from 1908.²⁹ There, the railroad hired a contractor to keep the right of way clear of brush.³⁰ The contractor burned the area but lost control of the fire which consumed the plaintiff's stacked hay and grass.³¹ The Kansas court stated the exception to the general rule of employer nonliability for the negligence of contractors as one in which an employer with dangerous work to be done is obliged to see the work is done carefully, and cannot avoid liability by delegating the work to a contractor.³²

Thus, the Arizona supreme court, faced with an issue of first impression, found support for the rule of nondelegability for more than ordinarily dangerous instrumentalities from general legal principles and precedents that are well supported.

B. Semantics and the Limits of Language

Casual use and interchange of the terms "strict liability," "ultrahazardous," "abnormally dangerous," and "inherently dangerous" have led to confusion concerning what theory of liability the courts have used in deciding cropdusting cases. As one commentator has observed, in analyzing cropdusting cases, one must distinguish the term

²⁴ *Medley v. Trenton Inv. Co.*, 236 N.W. 713 (Wis. 1931).

²⁵ *Id.*

²⁶ *Id.* at 714.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *St. Louis & S.F.R. Co. v. Madden*, 93 P. 586 (Kan. 1908).

³⁰ *Id.* at 586.

³¹ *Id.*

³² *Id.* at 588.

“inherently dangerous” when used to describe activities that trigger employer liability (as in *Gerrard*) and “inherently dangerous,” “abnormally dangerous,” “ultrahazardous,” and similar language in the context of strict liability or products liability causes of action.³³ Another critical distinction to be made is that between the “strict liability” rule of *Rylands v. Fletcher* and its progeny, and the “strict liability” rule adopted by those courts that follow the Restatement’s balancing of equities approach.³⁴

As a consequence, it becomes necessary for the practicing lawyer to read past decisions carefully and determine with specificity what meaning their courts attach to these terms and how they have been applied in the past, if the intent is to get the case past a judge and to a jury. Arguments that are of interest to academicians and theoreticians must take second place to the interests of the client and his cause, if that is what the situation demands of the trial lawyer.

II. THEORIES OF LIABILITY

There are competing theories of liability that attach to aerial application of agricultural chemicals or other materials, and this article is not intended to be an extensive treatise on the subject. That is far beyond the scope of this article and in any event has been addressed by far more able commentators.³⁵ Rather, this article examines the state of the law concerning aerial application of agricultural chemicals as it exists in three states—Arkansas, Louisiana, and Mississippi—by a survey of relevant case law and other material, in the hope that it will prove useful to Delta citizens, farmers, and lawyers in recognizing some of the problems that can arise in cropdusting cases.

³³ Note, *Crop Dusting: Legal Problems in a New Industry*, 6 STAN. L. REV. 69, 77 n.71 (1953).

³⁴ See *Rylands v. Fletcher*, L.R. 3 H.L. 330 (1868); RESTATEMENT (SECOND) OF TORTS § 520. It is generally conceded that the *Rylands* case stands for the proposition that one who keeps a dangerous instrumentality on his own land that cannot be made safe is strictly liable for the damage occasioned by its escape. On the other hand, the Restatement approach to the same problem is an alleged balancing of interests, which amounts only to a balancing of economic realities.

³⁵ See generally William T. Birmingham & Jon L. Kyl, *Legal and Practical Aspects of Pesticide Spraying Cases*, INS. COUNS. J. 585 (Oct. 1970).

A. *Strict Liability: Four Different Cases and Four Different Theories of Liability*

The most frequently discussed case applying a strict liability theory to aerial application of agricultural chemicals is found in a jurisdiction far removed from the Mississippi Delta.³⁶ Prior to this case, only three state supreme courts had adopted a theory of strict liability in cropdusting cases: Louisiana, Oregon, and Oklahoma.³⁷ A very unscientific review of the subsequent history of the *Langan* case suggests that it may have been more interesting to scholars than anyone else.³⁸

The *Langan* plaintiffs were organic growers in the Yakima Valley of Washington who sued neighbors who had employed a cropduster to spray pesticides on their farm property.³⁹ Although testimony was conflicting as to how it got there, pesticide residue was detected in the Langans' vegetable crop.⁴⁰ Because pesticide residues were detected in their growing crops, the Langans lost their certification as organic farmers by the Northwest Organic Food Producers' Association.⁴¹ Perhaps because of decertification, the Langans pulled up their plants from the ground and let them die.⁴² They then brought suit against their neighbors who had employed the cropdusters.

The Washington Supreme Court noted that it had adopted the Restatement (Second) of Torts, sections 519-520 in prior cases, and found this approach controlling on the question, thus conclusively applying Restatement-style strict liability to the aerial application of pesticides.⁴³

³⁶ See *Langan v. Valicopters*, 567 P.2d 218 (Wash. 1977). Strict liability is generally conceded to be liability without a finding of fault, although within this rubric are degrees of strict liability ranging from balancing economic interests to a rule of more or less absolute liability.

³⁷ See *Gotreaux v. Gary*, 94 So.2d 293 (La. 1957); *Loe v. Lenhardt*, 362 P.2d 312 (Or. 1961); *Young v. Darter*, 363 P.2d 829 (Okla. 1961).

³⁸ Shephardizing this case proves the point. Rather than being the emergent trend of a new majority as many may have hoped, *Langan* appears to be something of a blind alley in the law of agricultural aviation.

³⁹ *Langan*, 567 P.2d at 218.

⁴⁰ *Id.* In addition, the record is sparse as to when the pesticide that produced the residue was applied, or if the residue was there all along.

⁴¹ *Id.* at 219. The residual level of pesticide was below that which the F.D.A. considers safe for human consumption.

⁴² *Id.*

⁴³ *Id.* at 221. The RESTATEMENT (SECOND) OF TORTS § 519 rather magisterially pronounces that one who carries out an "abnormally dangerous" activity is subject to strict liability for the sort of harm that makes the activity dangerous. Under § 520, the court considers 1) whether the activity involves a high degree of risk; 2) whether the

It is interesting to note that strict liability with respect to aviation in general was a view endorsed by many courts in the past because of aviation's experimental nature. In most jurisdictions that have considered the issue, it is generally agreed that because aviation is a proven and reliable method of transportation, it is not in any way experimental under present conditions. That being so, negligence must be shown for liability to attach.⁴⁴ It may be concluded, therefore, that *Langan* represents a step back in time, rather than the great leap forward that, perhaps, many had hoped for.

Several criticisms of the *Langan* decision are in order. First, the court noted that the value of cropdusting to the community must be weighed by asking who should bear the loss caused by pesticides, and concluded that it was the cropdusters and their employers who ought to pay.⁴⁵ This view is one-dimensional and raises the question of whether small scale growers like the Langans should be required to compensate farmers who might be prevented from destroying harmful pests because of the presence of small organic farms nearby. One wonders whether traditional farmers in Washington or elsewhere ought to be held captive in this fashion by what may be a determined minority of exurbanite weekend gardeners.⁴⁶

A second criticism concerns the measure of proof. A skeptic might ask whether the pesticide residue already existed in the plants or soil? Did it get there by some means other than the spray drift complained

gravity of the harm is likely to be great; 3) whether the risk cannot be eliminated by the exercise of due care; 4) whether the activity is not a matter of common usage; 5) whether the activity is inappropriate to the place where it is carried on; and 6) the value of the activity to the community. In thus conducting a balance of competing interests, some might suggest that this approach makes the courts into arbiters of public policy, a role they generally eschew. Some might also argue that making decisions like this is more properly the task of a jury of neighbors under the common law of the English speaking people for the last 800 years. Interestingly, the court did not choose to apply the very next section of the RESTATEMENT (SECOND) OF TORTS, § 520A, which imposes absolute liability without fault for any damage caused by something that falls from an airplane.

⁴⁴ See generally *Guille v. Swan*, 19 Johns. 381 (N.Y. Sup. Ct. 1822). Compare with *Boyd v. White*, 276 P.2d 92 (Cal. Ct. App. 1954), for an illuminating disquisition on the formerly experimental nature of aviation in general.

⁴⁵ *Langan*, 567 P.2d at 223.

⁴⁶ The author is not unsympathetic and is merely calculating his own "balancing of interests." When the courts support the proprietor of a 2-1/2 acre garden plot in dictating what practices are forbidden to more traditional farmers in the area, the tail is wagging the dog a bit. He also wonders whether anyone can argue that such an operation can produce revenue sufficient to support the family, send the kids to college, pay for a satellite dish, and keep a Buick in the driveway.

of? If so, who was responsible? Should the traditional farmers of the region be made the insurers of their neighbors because of their method of farming? These are all questions that *Langan* fails to answer.

A third criticism centers on the quantum of damages. The plaintiffs chose to destroy their crop in the field rather than to bring to market a crop that would have been eminently suitable for the table, judged by F.D.A. standards.⁴⁷ Because the plaintiffs chose to incur a total loss rather than to mitigate damages, the measure of damage thus turns on what the plaintiffs thought they could get for their crop and what they wanted to use it for, rather than the extent to which they suffered money damage from the time of the alleged event. The measure of damage can thus only be characterized as speculative, given the deficit in proof as to when the damage occurred and what the value of the crop would have been if brought to maturity and sold albeit with traces of pesticide residue.

Two other states besides Louisiana and Washington are credited with adopting a theory of strict liability with respect to aerial applicators, although in one case, that proposition may well be incorrect.

In the Oklahoma case of *Young v. Darter*, the court imposed strict liability on a farmer who caused weed killer to be sprayed on a pasture, resulting in damage to a neighbor's cotton field.⁴⁸ The Oklahoma Supreme Court stated that the case fell directly within the rule of *Rylands v. Fletcher*.⁴⁹ By comparison, the Oregon case of *Loe v. Lenhardt* was decided on a form of strict liability for intentional trespass under the principles of the first Restatement of Torts section 165, with the requisite element of intent being proved by intentional imposition of a high degree of risk upon one's neighbor.⁵⁰ The precedents the court cited, bearing on the issue of environmental trespass, tend to suggest that trespass liability, rather than a general rule of strict tort liability, is the better view of the holding.⁵¹

In practical terms, strict liability in cropdusting cases, whether it is the product of *Rylands* doctrine, environmental trespass theory, or Restatement (Second)-style strict liability amounts to a shifting of the burden of proof and production from plaintiffs to defendants, rather than the imposition of absolute liability or liability without fault as is the case with section 520A of the Restatement (Second). Because of

⁴⁷ *Langan v. Valicopters*, 567 P.2d 218, 220-21 (Wash. 1977).

⁴⁸ *Young v. Darter*, 363 P.2d 829 (Okla. 1961).

⁴⁹ *Id.* at 833.

⁵⁰ *Loe v. Lenhardt*, 362 P.2d 312, 317 (Or. 1961).

⁵¹ *Id.* at 315 (citing *Martin v. Reynolds Metals Co.*, 342 P.2d 790 (Or. 1959)).

this, the prudent defendant in a cropdusting case, in the Delta states or elsewhere, will approach problems of production and proof as if the issue were one of strict liability, rather than adopting a more complacent strategy.

B. An Aside Concerning Strict Products Liability and Preemption

In the product liability arena, the fundamental case that launched the modern era of strict products liability was *Greenman v. Yuba Power Products*, which held that a manufacturer who places a product on the market knowing that it is to be used without inspection, and which proves to have a defect that injures, is held strictly liable.⁵²

However, many claims that are framed as product liability lawsuits with respect to the application of agricultural chemicals that stem from an alleged failure to warn of associated dangers and defective products, have in some measure been preempted by the Federal Insecticide, Fungicide, and Rodenticide Act (hereinafter "FIFRA").⁵³ FIFRA expressly preempts state labeling requirements that are different from those of the federal government.⁵⁴ However, no generalizations can be made regarding state law in this respect except to note that the extent of FIFRA preemption of remedies premised on the Uniform Commercial Code or state tort or common law remedies is unclear and varies between states.⁵⁵

In one case the United States Supreme Court has directly addressed the issue of FIFRA preemption with respect to local regulation of pesticide application in a decision that has far reaching consequences for

⁵² *Greenman v. Yuba Power Prods.*, 377 P.2d 897, 900-01 (Cal. 1963).

⁵³ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136-136y (2000).

⁵⁴ 7 U.S.C. § 136v(b) (2000).

⁵⁵ See generally *Henderson v. Department of Agric.*, 875 P.2d 487 (Or. Ct. App. 1994) (finding statute making it an offense to use pesticide inconsistently with label did not impermissibly delegate legislative power to the manufacturer, as federal and state law governs label requirements); *Hue v. Farmboy Spray Co.*, 896 P.2d 682 (Wash. 1995) (holding that FIFRA preempts only those state common law actions predicated on allegations that product label should have had additional or different warnings than FIFRA requires); *Ciba-Geigy Corp. v. Alter*, 834 S.W.2d 136 (Ark. 1992) (holding that FIFRA does not preempt inadequate warning claims); *Jenkins v. Amchem Prods.*, 886 P.2d 869 (Kan. 1994) (finding that FIFRA preempts failure to warn claims); *Davidson v. Velsicol Chem. Corp.*, 834 P.2d 931 (Nev. 1992) (finding that FIFRA does not expressly preempt failure to warn claims but implicitly preempts them); *Coparr v. City of Boulder*, 942 F.2d 724 (10th Cir. 1991) (holding that FIFRA did not preempt city ordinance imposing notification requirement on commercial pesticide applicators).

aerial applicators.⁵⁶ In *Wisconsin Public Intervenor v. Mortier*, a small town in Wisconsin enacted municipal ordinances that required a permit for aerial application of pesticides and denied such a permit to the plaintiff. The plaintiff argued that the town ordinance was preempted by state and federal law. Reversing the Wisconsin Supreme Court's holding that the town ordinance was expressly preempted by FIFRA, the United States Supreme Court held that FIFRA does not preempt local regulation of pesticide use either expressly or impliedly and is, in fact, in favor of local regulation.⁵⁷ The implications of *Wisconsin Public Intervenor* are obvious; local regulation and denial of permits to aerially apply chemicals is within the competence of local governmental units.

One case from another jurisdiction highlights some of the more important issues involved in determining preemption under FIFRA with respect to aerial application.⁵⁸ In *Hue v. Farmboy Spray Co.*, a group of homeowners in Washington argued that pesticides sprayed on farms combined and drifted onto their lands.⁵⁹ The Washington Supreme Court held that FIFRA preempted the claims of the plaintiffs that were predicated on common law, failure to warn theories of liability.⁶⁰ The court also held that implied warranty claims were actually attacks on the adequacy of the labeling and thus preempted by FIFRA.⁶¹ In the view of the court, artfully pleaded cases could not escape being swept into the FIFRA net. It should be noted that the extent and reach of FIFRA preemption in any given jurisdiction with respect to aerial applicators will, in large measure, determine the strategy used to posture the case by the practicing lawyer.

C. Negligence

As stated elsewhere in this article, traditional negligence concepts with respect to aerial application are the rule that courts follow in Arkansas and Mississippi, although it does appear that Arkansas courts apply a higher duty of care on employers of contractors who are hired to perform work that requires more than routine care.⁶² Mississippi has also statutorily mandated that in lawsuits against aerial applicators for

⁵⁶ *Wisconsin Pub. Intervenor v. Mortier*, 501 U.S. 597 (1991).

⁵⁷ *Id.* at 607.

⁵⁸ *Hue v. Farmboy Spray Co.*, 896 P.2d 682 (Wash. 1992).

⁵⁹ *Id.*

⁶⁰ *Id.* at 687.

⁶¹ *Id.* at 694.

⁶² See *infra* notes 88-107, 111-18 and accompanying text.

causes of action based on contamination, plaintiffs must plead and prove negligence.⁶³ Arkansas courts have, it is true, imposed strict liability on manufacturers of herbicides where the manufacturer inadequately tested the material for its drift characteristics.⁶⁴ They have also applied strict liability upon improperly certified personnel using defective equipment, but both cases are very limited factual situations not likely to be repeated in the garden variety chemical drift lawsuit.⁶⁵ Neither of these cases, therefore, stand for the proposition that Arkansas has generally adopted strict liability in the aerial application field.

With that said, plaintiffs and their counsel in aerial application cases will need to keep in mind the law student's mantra of duty, breach, proximate cause and damage in fact, if they expect to bring a case to a jury in Arkansas or Mississippi under current law, barring a truly egregious set of facts. They should also bear in mind the principle that the duty of care is generally held to be consonant with the risk of harm, and can thus be expected to be higher in cropdusting cases than activities with less built-in potential for harm.

D. Trespass and Nuisance

The Oregon case of *Loe v. Lenhardt* was decided on a theory of liability for quasi intentional trespass as an environmental cause of action.⁶⁶ It is therefore unlikely that *Loe v. Lenhardt* is a true strict liability in tort case, but can be more properly considered an environmental trespass case decided under settled Oregon precedents.⁶⁷ A significant

⁶³ See *infra* notes 111-18 and accompanying text.

⁶⁴ See *infra* notes 88-92 and accompanying text. See also *J.L. Wilson Farms v. Wallace*, 590 S.W.2d 42 (Ark. Ct. App. 1979).

⁶⁵ *Id.*

⁶⁶ See *Loe v. Lenhardt*, 362 P.2d 312 (Or. 1961). This approach has gained some currency in light of several well known smelter cases that dealt with the environmental effects of lead particulates or other environmental contamination. See generally *Martin v. Reynolds Metals Co.*, 342 P.2d 790 (Or. 1959); *Bradley v. American Smelting & Ref. Co.*, 709 P.2d 782 (Wash. 1985); *Borland v. Sanders Lead Co.*, 369 So.2d 523 (Ala. 1979).

⁶⁷ See RESTATEMENT OF TORTS § 165 cmt. d (1938). The first Restatement's rule with respect to whether an activity is so hazardous as to trigger trespass liability is the same as that which governs ultrahazardous activities. See also RESTATEMENT OF TORTS § 520 cmt. a (1938). That rule applies if the activity "necessarily involves a risk of serious harm to the person, land, or chattels of others which cannot be eliminated by the exercise of utmost care and is not a matter of common usage." See also RESTATEMENT OF TORTS § 520 cmt. b (1938), which declares that aviation is an ultrahazardous activity due to its experimental nature, and this belief appears to be carried through in the second Restatement. See also RESTATEMENT (SECOND) OF TORTS § 520A (1964).

difference between this case and those in other jurisdictions that have considered the issue is that the court in *Loe v. Lenhardt* severed the responsibility of the employer from that of the contractor, and this appears consistent with the idea that the case is one of trespass and not strict liability.

In addition, noise trespass has been held to be a viable cause of action in several cases where actual damage to animals has been shown, and the analogy lends itself readily to aerial application and environmental tort cases.⁶⁸ Advances of science have shed much light on the nature of airborne chemical and other contamination in the last thirty years, removing much of the rationale for strict application of visible invasion standards in trespass cases, and it is now generally conceded that there are a variety of intentional invasions, which are not readily visible to the eye or palpable to the unaided senses, that can cause actual damage.⁶⁹

The subject of nuisance is an enduring one, but definition has always been a matter of discussion. One commentator defines a common law nuisance as “[a]n activity causing unreasonable and substantial interference with another’s quiet use and enjoyment of property.”⁷⁰ Another defines a nuisance as “[a]nything which annoys or disturbs the free use of one’s property, or which renders its ordinary use or physical occupation uncomfortable.”⁷¹ Generally speaking, a common law private nuisance involves the use of property by one party which unreasonably interferes with the reasonable use or repose of other persons who have an estate in adjoining lands, whether as landowners or tenants. One court in describing the general principles of nuisance said:

This belief is erroneous today, and it was erroneous in 1938 when the first Restatement was drafted. It is a belief that is premised on an outmoded conceptualization of the nature of aviation and how risk can be managed.

⁶⁸ See, e.g., *United States v. Causby*, 328 U.S. 256 (1946); *Miller v. Maples*, 278 S.W.2d 385 (Tex. Civ. App. 1958). But see *Winingham v. Anheuser-Busch Inc.*, 859 F.Supp. 1019 (N.D. Tex. 1994) for a more skeptical view of the issue.

⁶⁹ See Peter G. Yelkovic, *HOMOGENIZING THE LAW OF STRAY VOLTAGE: AN ELECTRIFYING ATTEMPT TO CORRAL THE CONTROVERSY*, 28 Val. U. L. Rev. 1111, 1111 (1994). The author lends further support of the Bard’s admonishment that there is more in heaven and earth than is dreamt of in our philosophy, by writing that stray voltage, once thought to be a rare phenomenon, causes numerous behavioral and psychological problems in farm animals.

⁷⁰ NEIL D. HAMILTON, *A LIVESTOCK PRODUCER’S LEGAL GUIDE TO NUISANCE, LAND USE CONTROL, AND ENVIRONMENTAL LAW* 7 (1992).

⁷¹ BARRON’S LAW DICTIONARY 326 (Stephen H. Gifis ed.) (3d ed. 1991).

[O]rdinarily one has a right to use his property as he sees fit, but a man's dominion over his own premises is qualified to the extent that his use of them must be reasonable and such as not to create a nuisance and thereby deprive neighbors of the enjoyment of their homes.⁷²

With respect to aerial application of agricultural chemicals, it is worth noting that all fifty states have some form of "right to farm" law.⁷³ Rather than an absolute guarantee of a right to conduct a farm operation, these statutes afford a limited safe harbor from nuisance and trespass suits against agricultural enterprises when the operation is conducted in a legal manner, in accordance with generally accepted farm management principles, or was in existence for a certain period of time, or is conducted within a designated agricultural production zone.

Although the issue had not become part of a reported decision at the time this article was written, it is entirely possible that a farm operator could invoke a state's right to farm provisions in opposition to a neighbor's nuisance suit with respect to aerial application of agricultural chemicals.⁷⁴ Of particular significance in such a case would be how the activity is characterized and whether cropdusting is considered a normal and accepted agricultural management practice under the circumstances. Louisiana's right to farm statute describes a protected "agricultural operation" as one which is engaged in "agricultural production" and which uses "agricultural support services" one of which is cropdusting.⁷⁵ It seems clear that the statute was partly intended to provide protection from nuisance suits which might arise from a cropdusting incident.

It is also worth noting that the more traditional trespass and nuisance causes of action are limited in their applicability because they depend to a greater or lesser degree on ownership of an estate in land and thus do not lend themselves readily to the causes of plaintiffs who do not have such an interest. Some states have statutorily defined public nuisances in addition to common law nuisances, and these may include unlicensed gambling dens, junkyards, abattoirs and tanneries,

⁷² *Sam Warren & Sons Stone Co. v. Gruesser*, 209 S.W.2d 817, 819 (Ky. Ct. App. 1948).

⁷³ *See, e.g.*, ARK. CODE ANN. §§ 2-4-101 to -107 (Michie 1999); LA. REV. STAT. ANN. § 3:3602 (West 2000).

⁷⁴ For an informed critique of right to farm laws see Neil D. Hamilton, *Right to Farm Laws Reconsidered: Ten Reasons Why Legislative Efforts to Resolve Agricultural Nuisances May Be Ineffective* (Oct. 16, 1997) (paper delivered at the convention of the American Agricultural Law Association (on file with author)).

⁷⁵ LA. REV. STAT. ANN. § 3:3602 (West 2000).

feedlots, unlicensed medical laboratories, bucket shops, houses of ill fame, rendering plants, dead haulers, and the like. Such nuisances do not depend on an interest in land for the prosecution thereof, and it is therefore worth determining whether one may plead a cropdusting case under existing public nuisance statutes in a particular jurisdiction.

E. Toxic Tort Issues

Although the issues of toxic torts, chemically sensitized victims, environmental justice, and other associated highly politicized issues have not yet been litigated in the region concerning aerial applicators, state officials in other jurisdictions have initiated large scale spraying of pesticides in an effort to control insects that damage crops or are vectors for disease.⁷⁶ In many communities, such activities have become the focal point for activities of political and social organizations with murky agendas.⁷⁷ There is some scientific evidence tending to show that malathion, broadly applied by aircraft in California and Massachusetts, is hazardous to human health and the environment, although scientists differ over whether malathion has mutagenic or teratogenic qualities.⁷⁸

The point of this discussion, of course, is to show that as scientific knowledge and the state of detection technology advances, many compounds in the environment have been found to be less innocuous than they were formerly thought to be.⁷⁹ A proximate result of this general advance of knowledge may well be more lawsuits against aerial applicators and their employers under existing theories of law.

⁷⁶ See generally Sean A. Murphy, *Aerial Pest Eradication in Massachusetts and California and the Pesticide Malathion*, 19 B.C. ENVTL. L. AFF. L. REV. 851 (1991); Roderick E. Walston, *The Great Medfly War: A Short Memoir of the Legal Battle*, STAN. LAW. 10, 11 (1981).

⁷⁷ One of the author's prized possessions is a pink button, approximately 2.5 inches in diameter, which bears the inscription: "Governor Moonbeam-Medfly of the Year" and on which is depicted the head of the former governor of California superimposed on the body of a very hairy fly. The button was purchased at a large gun show in Pomona, California some years ago, and its creator is unknown. The point of this diversion is to show that there is much more to the issue of aerial spraying of pesticides than mere garden variety tort cases.

⁷⁸ Murphy, *supra* note 76, at 854.

⁷⁹ See Tobin, *supra* note 7. According to Tobin, the reverse is also true.

F. Pesticide Applicator Licensure

Under FIFRA, a comprehensive scheme of legislation was enacted to control pesticide, fungicide, and rodenticide use and marketing.⁸⁰ Among other provisions, FIFRA provides general authority to promulgate certification standards for pesticide and herbicide applicators.⁸¹ In general, the state plans adopted under the FIFRA state certification option require that pesticide applicators meet minimum standards of competency. FIFRA also makes provision for record keeping and container and waste disposal.⁸² The employers of aerial applicators and those who contract for their services will do well to familiarize themselves with general rules applicable to pesticide applicators as well as those rules that apply specifically to aerial applicators.

G. Other Environmental Issues

The general issues of successor liability for environmental torts and responsibility for compliance with federal environmental laws are issues that may have a sketchy history in the Mississippi Delta, but events in other jurisdictions are useful to illustrate some of the more significant issues that farmers and rural residents need to be aware of.

In Cherokee County, Iowa for example, a feedlot went into bankruptcy when pesticide residues were discovered in its cattle, apparently from contaminated feed.⁸³ The feed had been dumped on the ground and picked up with a front end loader and some contaminated earth was picked up along with the feed.⁸⁴ Because of the bankruptcy, the property (including a large lagoon filled with animal waste) reverted to the county which thus inherited a waste site that will be a problem for the foreseeable future as well as a drain on revenue.⁸⁵ The significance of this story for the farmer or for small governmental units is that environmental problems live on long after the principals have disappeared or become judgment-proof. In addition, principals of dissolved corporations may themselves become subject to liability for environmental cleanup costs associated with pesticides committed when the corporations themselves were active.⁸⁶ Farmers who employ aerial ap-

⁸⁰ 7 U.S.C. §§ 136-136y (2000).

⁸¹ 7 U.S.C. §§ 136i-136j (2000).

⁸² 7 U.S.C. § 136i-1 (2000).

⁸³ See Rick Robinson, *County Struggles With Abandoned Feedlot*, IOWA FARM BUREAU SPOKESMAN, Oct. 1, 1994.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ See *United States v. Morrison-Quirk Grain Corp.*, No. CV88-L-720, 1990 U.S.

plicators may also expose themselves to liability stemming from prosecution if the operation is conducted in an overtly sloppy or reckless manner.⁸⁷

III. THE STATE OF CASE LAW IN THE MISSISSIPPI DELTA

A. Arkansas

Some commentators suggest that Arkansas courts adopted strict liability for aerial pesticide application in *J.L. Wilson Farms v. Wallace*.⁸⁸ However, in that case the appellate court merely found that the jury had sufficient evidence to find that 2, 4-D was an inherently dangerous product when used under the circumstances in evidence.⁸⁹ The court did not find that aerial application of herbicides is a per se ultrahazardous activity.⁹⁰ The circumstances in question were that the herbicide had been applied contrary to regulation by an uncertificated pilot from an uninspected and potentially defective aircraft without notification to the Arkansas Plant Board as required by regulation.⁹¹ It may be further said that the courts of Arkansas were not unaware at the time of any distinction to be drawn between ordinary and ultrahazardous activities.⁹²

As previously noted, one commentator cautions us to clearly distinguish the term "inherently dangerous" when it is used to describe activities which render an employer liable for the tortious conduct of an

Dist. LEXIS 18921, at *20 (D. Neb. May 4, 1990).

⁸⁷ See *State v. Courtney*, 247 N.W.2d 714 (Wis. 1976).

⁸⁸ See, e.g., Robert F. Blomquist, *Applying Pesticides: Toward Reconceptualizing Liability to Neighbors For Crop, Livestock, and Personal Damages From Agricultural Chemical Drift*, 48 OKLA. L. REV. 393, 406 (1995) (discussing *J.L. Wilson Farms v. Wallace*, 590 S.W.2d 42 (Ark. Ct. App. 1979)); Jonathan M. Purver, *Annotation: Liability For Injury Caused By Spraying or Dusting of Crops*, 37 A.L.R. 3d 833 § 5 (1972, 1996); Robert M. Clark, Jr., *Legal Implications of Agricultural Aviation in Crop Dusting*, 4 AGRIC. L.J. 390, 398 (1982).

⁸⁹ *J.L. Wilson Farms v. Wallace*, 590 S.W.2d 42, 44 (Ark. Ct. App. 1979).

⁹⁰ *Id.*

⁹¹ *Id.* One assumes that the learned judges of the Arkansas Court of Appeals were aware of the theory of strict liability generally and the Restatement (Second) of Torts and would have applied them if the law and the facts in the case before them had supported it.

⁹² See *Zero Wholesale Gas Co. v. Stroud*, 571 S.W.2d 74, 76 (Ark. 1978). The court reiterated that an activity is ultrahazardous if it necessarily involves a risk of serious harm which cannot be unlimited by the exercise of utmost care, and is not a matter of common usage.

independent contractor and the use of “inherently dangerous” or “ultrahazardous” terminology which imposes strict liability.⁹³ The interchangeable usage of these terms in analyzing the activity involved may have acted to create confusion about what was said by the Arkansas court in *J.L. Wilson Farms v. Wallace*. Reading the operative words in the decision lends support to the note writer’s first point of distinction, rather than the second.

If anything, *J.L. Wilson Farms v. Wallace* stands for a rule of negligence per se where defined “restricted use” herbicides are applied by unlicensed personnel in a manner contrary to regulation. The case also stands for the proposition that restricted use herbicides are inherently dangerous *if improperly or unlawfully used*. It does not, however, stand for the principle that Arkansas has adopted strict liability standards for aerial application of agricultural chemicals in all circumstances.

Others have suggested that Arkansas applied a species of strict liability to aerial application in *Chapman Chemical Co. v. Taylor*.⁹⁴ Rather, the principle laid down in *Burns v. Vaughn*, that one who applies agricultural chemicals must be shown to be negligent in order to establish liability, is the controlling principle in Arkansas.⁹⁵ Although the *Chapman* court did apply strict liability, that principle was applied not to the applicator but to a chemical manufacturer who failed its duty to determine whether the herbicide would damage others’ crops if applied in the intended manner.⁹⁶

The Arkansas courts first addressed the issue of negligent aerial application of agricultural chemicals in 1940, and found controlling pre-

⁹³ See *supra* notes 33-34 and accompanying text.

⁹⁴ See *Birmingham & Kyl, supra* note 35, at 589.

⁹⁵ See *Burns v. Vaughn*, 224 S.W.2d 365 (Ark. 1949); *accord Sullivan v. Voyles*, 462 S.W.2d 454 (Ark. 1971).

⁹⁶ See *Chapman Chem. Co. v. Taylor*, 222 S.W.2d 820, 826 (Ark. 1949); See also *Walton v. Sherwin-Williams Co.*, 191 F.2d 277, 280 (8th Cir. 1951) (*Chapman* applies to dust form of herbicide only). Although the court in *Little v. McGraw*, 467 S.W.2d 163, 164-65 (Ark. 1971), cited the *Chapman* case in dicta for the proposition that spreading 2, 4-D is “unduly hazardous to nearby crops,” it is plain from the facts that *Chapman* does not stand for the general proposition that 2, 4-D (properly applied) is dangerous, or for the larger proposition that aerial application is considered an inherently dangerous activity. Rather, *Chapman* stands as a warning that those manufacturers who do not properly evaluate the compounds they make will suffer the consequences. This is made clear by the *Chapman* court’s reliance on *Spencer v. Madsen*, 142 F.2d 820, 823 (10th Cir. 1944), for the application of strict liability to manufacturers who do not use ordinary care.

cedent in *S.A. Gerrard Co. v. Fricker*.⁹⁷ In *Hammond Ranch*, a tenant employed the Silver Fleet Dusting Co. to apply arsenic dust to a cotton field near a pasture.⁹⁸ Dodson and others alleged that negligent application of the arsenic dust caused the death of three cows and a mule, as well as compelling Dodson to purchase clean hay for his animals.⁹⁹ At trial, testimony indicated that the pilot did not shut off the spray as he passed over Dodson's pasture, and the pasture was covered in white powder.¹⁰⁰ A veterinarian testified that the affected animals appeared to have suffered arsenic poisoning.¹⁰¹ Hammond argued that the cropduster was an independent contractor hired by tenants, but the fact that the cropduster had consulted Hammond and that Hammond had paid for a share of the pesticide was enough to impute liability to Hammond.¹⁰²

In 1949, Arkansas courts revisited the issue of cropduster liability. In *Chapman Chemical Co. v. Taylor*, the court held that a chemical manufacturer was strictly liable where inadequate product testing had been done.¹⁰³ The cropduster in this instance was not held liable by the jury at trial, and the appellate court affirmed, apparently because there was no basis for liability except that a dangerous chemical was in use.¹⁰⁴

Two other cases interpreting Arkansas law are of significance to this discussion. In *Burns v. Vaughn*, the court held that the proper standard of liability for one who aerially applies chemicals is one of negligence.¹⁰⁵ Interpreting Arkansas law, the Eighth Circuit held in *Walton v. Sherwin-Williams Co.* that because there was substantial evidence that 2, 4-D applied in an oil base was not an inherently dangerous product, there was no error when the trial court refused to instruct the jury on strict liability.¹⁰⁶

Arkansas courts considering cropdusting cases also apply a rule of joint and several liability where the acts of multiple tortfeasors com-

⁹⁷ See *Hammond Ranch Corp. v. Dodson*, 136 S.W.2d 484 (Ark. 1940) (citing *S.A. Gerrard Co. v. Fricker*, 27 P.2d 678 (Ariz. 1933)); See also *supra* notes 11-34 and accompanying text.

⁹⁸ *Hammond Ranch Corp.*, 136 S.W.2d at 484.

⁹⁹ *Id.* at 484-85.

¹⁰⁰ *Id.* at 485.

¹⁰¹ *Id.* at 486.

¹⁰² *Id.*

¹⁰³ *Chapman Chem. Co.*, 222 S.W.2d 820 (Ark. 1949).

¹⁰⁴ *Id.* at 827.

¹⁰⁵ *Burns v. Vaughn*, 224 S.W.2d 365 (Ark. 1949).

¹⁰⁶ *Walton v. Sherwin-Williams Co.*, 191 F.2d 277, 281-82 (8th Cir. 1951).

bine to produce damage to a plaintiff or plaintiffs.¹⁰⁷

In short, Arkansas law appears to hold that the usual and customary standard of liability in aerial application cases is negligence except under very limited factual circumstances.

B. Louisiana

Only Louisiana has adopted a strict liability standard in aerial application cases. In *Gotreaux v. Gary*, a farmer's cotton crop was damaged by the application of 2, 4-D to a nearby rice field.¹⁰⁸ The trial court found no negligence in the conduct of the aerial applicator or his employer, and the plaintiff had argued that the acts of the defendants were a nuisance that did not depend on negligence to impose liability.¹⁰⁹ Relying on *Fontenot v. Magnolia Petroleum*, the court held that the question was one of negligence and not nuisance, and negligence was not a prerequisite to liability despite the exercise of due care measured by modern standards.¹¹⁰ The court thus relied more on a doctrine of absolute liability and not a balancing of equities which some other courts have adopted. The court's reliance on a blasting case suggests that it discounted the view that aviation or aerial application is a safe enterprise where risk can be properly managed.

C. Mississippi

The Mississippi courts adopted a rule of negligence in aerial application in *Lawler v. Skelton*, decided in 1961.¹¹¹ In that case, the manager of a cotton gin surrounded on three sides by cotton fields sued for injuries when he was drenched with pesticide sprayed by the defendant's contractor.¹¹² Reversing the trial court verdict, the Mississippi Supreme Court held that the employer could not shield himself from the negligent acts of a contractor.¹¹³ The court also set the standard for aerial applicators as one of due care so as not to injure

¹⁰⁷ *McGraw v. Weeks*, 930 S.W.2d 365 (Ark. 1996).

¹⁰⁸ *Gotreaux v. Gary*, 94 So.2d 293 (La. 1957); see also *Jones v. Morgan*, 96 So.2d 109 (La. Ct. App. 1957); *Trahan v. Bearb*, 138 So.2d 420 (La. Ct. App. 1962); *Romero v. Chris Crusta Flying Serv.*, 140 So.2d 734 (La. Ct. App. 1962).

¹⁰⁹ *Gotreaux*, 94 So.2d at 374.

¹¹⁰ *Id.* at 295 (citing *Fontenot v. Magnolia Petroleum*, 80 So.2d 845, 848 (La. 1955). The cited case involved blasting, which is generally conceded to be an activity that cannot be made safe under any circumstances.).

¹¹¹ *Lawler v. Skelton*, 130 So.2d 565 (Miss. 1961).

¹¹² *Id.* at 567.

¹¹³ *Id.* at 569.

others.¹¹⁴ Although farmers have the right to use beneficial chemicals on their fields, the court conditioned that right on the exercise of due care to avoid liability for negligence.¹¹⁵

The Mississippi court has also adopted a rule of joint and several liability for defendants whose acts combine to produce a single injury in cropdusting cases.¹¹⁶ In *D.W. Jones, Inc. v. Collier* the acts of several adjacent landowners who applied pesticides caused the plaintiff to lose the production and use of his catfish pond through contamination.¹¹⁷ The court ruled that separate concurrent and successive negligent acts that combine to proximately cause a single injury to the property of the plaintiff imposed joint and several liability on the defendants.¹¹⁸

IV. A STUDY IN CONTRASTS: LEGISLATIVE MATERIAL IN THE DELTA REGION

On a prefatory note, this section does not address pesticide applicator licensure and training statutes that are largely a state administered reprise of FIFRA. It is presumed that the reader is reasonably familiar with local rules pertaining to this general subject. Rather, this section addresses the issue of local rules that may have an effect on the general conduct of aerial application. In addition, it is important to note also that these schemes of regulation vary greatly in force and effect.

A. Arkansas Plant Board Rules

The Arkansas Plant Control Board regulates the sale and use of herbicides and classifies 2,4-D, 2,4D, and MCPA as restricted use herbicides. The Board regulates these compounds in several ways.

First, the Board requires that manufacturers and distributors report the sale of more than one quart of restricted use herbicide to Arkansas purchasers, and this report must include the name and address of the purchaser.¹¹⁹ Sale of more than one pound of restricted use herbicide in dust form is prohibited, as is sale of esters other than those of low volatility except where express permission has been granted.¹²⁰ Sales over one quart to those without a valid applicator's permit is

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *See D.W. Jones, Inc. v. Collier*, 372 So.2d 288 (Miss. 1979).

¹¹⁷ *Id.* at 294.

¹¹⁸ *Id.*

¹¹⁹ ARKANSAS STATE PLANT BOARD CIRCULAR 9-A § 2 (1990).

¹²⁰ *Id.* at § 3.

prohibited.¹²¹

Custom applicators intending to use aircraft to apply restricted use herbicides must have the aircraft inspected by the Board and an inspection decal applied to the aircraft.¹²² Application from an uninspected aircraft is prohibited.¹²³ Aircraft that have carried restricted use herbicides must be thoroughly cleaned and have all rubber hoses replaced before they may be used to apply any compound to cotton.¹²⁴ Pilots and operators in charge must be certified, meet minimum experience requirements, and be recertified every three years.¹²⁵

In addition, custom applicators must report each application to the Board within ten days, and must keep application records on file for three years.¹²⁶ Application reports shall include the date and time of application, the name and address of the landowner, the location of the treated area, the wind direction and velocity at the site, the name and EPA registration number of the compound applied, the amount used per acre, the registration number of the aircraft and the pilot's name.¹²⁷

The Arkansas Plant Board also recognizes the susceptibility of cotton to chemical drift, and divides the state into two zones. In the cotton growing regions of the state, restricted use herbicides may not be applied within one mile of susceptible crops, which includes cotton, okra, peas, and tomatoes.¹²⁸

B. Mississippi Statutes

By comparison, Mississippi has adopted a more comprehensive scheme of legislation and has devoted an entire chapter in its code to the regulation of aircraft that apply hormonal herbicides.¹²⁹ The state requires aerial applicators of these compounds to be licensed by the State Department of Agriculture through the office of the state entomologist.¹³⁰ Nonresident applicators must designate the Secretary of State as a registered agent in order to subject them to jurisdiction,¹³¹

¹²¹ *Id.* at § 3.5.

¹²² *Id.* at § 4.5.

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.* at § 4.7.

¹²⁶ *Id.* at § 4.8.

¹²⁷ *Id.*

¹²⁸ *Id.* at § 4.9.

¹²⁹ MISS. CODE ANN. §§ 69-21-1 to -21 (2000).

¹³⁰ MISS. CODE ANN. § 69-21-7 (2000).

¹³¹ MISS. CODE ANN. § 69-21-11 (2000).

and must be bonded or insured to operate in the state.¹³²

Two parts of the state's regulatory scheme are of particular importance to potential claimants against aerial applicators of herbicides. First, a claim must be filed within sixty days of the date the damage occurred.¹³³ In addition, plaintiffs must plead and prove negligence in order to prevail.¹³⁴

However, the court held in *Lawler v. Skelton* that these rules do not apply when *pesticides* are aerially applied.¹³⁵ Under another section of the state statutes, the state provides a scheme for licensing aircraft that apply pesticides, through the Board of Agricultural Aviation, but this board has no power over herbicide applicators.¹³⁶ Rules similar to those that regulate herbicide applicators apply to pesticide applicators with respect to posting bond, insurance, and pleading and proving negligence.¹³⁷

C. Louisiana Agriculture Regulations

Under Louisiana law, aerial applicators are licensed by the State Department of Agriculture.¹³⁸ Such licensees are divided into two classes: those who apply phenoxy herbicide and all others.¹³⁹ In addition, all aerial applicators are required to be commercial applicators.¹⁴⁰ Application service owner/operators are also required to post a bond of \$25,000, or, in the case of phenoxy applicators, \$50,000. No commercial applicator may supervise an uncertified aerial pesticide applicator.¹⁴¹

In addition, all mechanically powered equipment used must be annually inspected and prominently identified.¹⁴² Aircraft used in aerial application of pesticides must be identified with letters or numbers at least twelve inches high.¹⁴³ In addition, applicators are required to keep detailed records of the work they do, including where they applied the compound, what they applied, the date of application, and any other

¹³² MISS. CODE ANN. § 69-21-13 (2000).

¹³³ MISS. CODE ANN. § 69-21-13 (2000).

¹³⁴ MISS. CODE ANN. § 69-21-15 (2000).

¹³⁵ *Lawler v. Skelton*, 130 So.2d 565, 570 (Miss. 1961).

¹³⁶ MISS. CODE ANN. §§ 69-21-107 to -111 (2000).

¹³⁷ MISS. CODE ANN. §§ 69-21-101 to -123 (2000); 1997 Miss. Laws 468 § 1.

¹³⁸ LA. REV. STAT. ANN. § 3:3243(A) (West 2000).

¹³⁹ LA. REV. STAT. ANN. § 3:3243(A) (West 2000).

¹⁴⁰ LA. REV. STAT. ANN. § 3:3243(A) (West 2000).

¹⁴¹ LA. REV. STAT. ANN. § 3:3243(B) (West 2000).

¹⁴² LA. REV. STAT. ANN. § 3:3243(E) (West 2000).

¹⁴³ LA. REV. STAT. ANN. § 3:3243(F) (West 2000).

information required by the State Department of Agriculture.¹⁴⁴

V. INSURANCE ISSUES: WHERE WORDS ARE EVERYTHING

A. *Policy Exclusions and Words of Art*

Aerial application of agricultural chemicals that damage the interests of neighbors and nearby farmers generally imposes some form of liability on the application contractor and the employer, whether through traditional negligence, nuisance, trespass or strict liability theories. Under any theory, the employers of the aerial applicators may expect to reach deeply into their pockets in the event of an adverse judgment. This fact alone suggests that farmers and other employers of aerial applicators, such as pipeline companies or power companies that need to keep a right of way clear, timberland owners who wish to control pests and brush, and governmental units that contract for such services, should be more than ordinarily careful in selecting a contract applicator.

Another major consideration for the employer of aerial applicators is the fact that aviation liability policies are replete with exclusions that serve to deny coverage if the aircraft is operated contrary to any law, is unairworthy, or if the operator is technically in violation of any of the myriad federal statutes that regulate aviation.¹⁴⁵

A third consideration for the aerial applicator and the employer is the fact that many commonplace words have a specialized and discrete meaning in the legal world that are not always congruent with their plain meaning. In the context of aviation liability insurance policy exclusions, the term “unairworthy” has been interpreted by some to mean that there is some infringement, no matter how minor, of the Federal Aviation Administration scheme by which aircraft receive certificates of airworthiness.¹⁴⁶ Some courts have held that an aircraft that is not properly equipped is “unairworthy.”¹⁴⁷ In other cases, the definition of terms in the insurance policy such as “occurrence” assume

¹⁴⁴ LA. REV. STAT. ANN. § 3:3243(G) (West 2000).

¹⁴⁵ See Robert A. Brazener, Annotation, *Risks and Causes of Loss Covered or Excluded by Aviation Liability Policy*, 86 A.L.R. 3d 118 (1996); Timothy Mark Bates, Comment: *Should A Causal Connection Between the Loss and Exclusion Be Required To Deny Coverage?* 52 J. AIR. L. & COM. 451 (Winter 1986).

¹⁴⁶ See *O'Connnor v. Proprietors' Ins. Co.*, 661 P.2d 1181, 1183 (Colo. Ct. App. 1982) (Coyte, J., dissenting).

¹⁴⁷ See *Southeastern Aviation Inc. v. Hurd*, 355 S.W.2d 436 (Tenn. 1962); *Sleezer v. Lang*, 102 N.W.2d 435 (Neb. 1960).

critical significance in determining whether coverage will apply. In such cases, employers may well find themselves the unwilling partners of aerial applicators on the wrong end of a lawsuit.

Further, states have reached varying results in considering whether there need be a connection of any sort between the alleged breach of rule or regulation and the incident in question to invoke the exclusion and thus deny coverage to the operator and the employer. In a minority of states, courts require some causal connection between the activity subject to exclusion and the event complained of to allow the insurer to avoid liability.¹⁴⁸ By comparison, the majority of states hold that plainly worded and unambiguous policy language will invoke an exclusion without a causal connection between the violation and the event.¹⁴⁹

In the Louisiana case of *Ray v. Cane Air*, an exclusion served to deny coverage where the policy required the services of a pilot with more than 500 hours of relevant experience and the pilot in question had only about 100 hours of relevant experience.¹⁵⁰ In the case of *U.S. Fire Ins. Co. v. West Monroe Charter Service, Inc.*, the court held that language in the policy that required a pilot to have a current medical certificate could bar recovery for the death of the passengers in a crash, despite the fact there was no connection between the crash and the pilot's medical status.¹⁵¹

Arkansas courts have generally held that exclusions in aviation liability insurance policies are valid without requiring the insurer to demonstrate proximate cause between the exclusion and the casualty. In an unreported case, an aircraft crashed because of a defective engine cylinder but the pilot did not have the required number of hours to his credit that the policy required.¹⁵² The court stated, "[W]e have consistently given effect to risk exclusion clauses without . . .

¹⁴⁸ See *Puckett v. U.S. Fire Ins. Co.*, 678 S.W.2d 936 (Tex. 1984); *Global Aviation Ins. Managers v. Lees*, 368 N.W.2d 209 (Iowa Ct. App. 1985); IOWA CODE § 515.101 (1997).

¹⁴⁹ See *Security Mutual Casualty Co. v. O'Brien*, 662 P.2d 639 (N.M. 1983); *O'Connor v. Proprietors' Ins. Co.*, 661 P.2d 639 (Colo. Ct. App. 1982); *Potter v. Ranger Ins. Co.* 732 F.2d 742 (9th Cir. 1984); *Economic Aero Club v. Avemco Ins. Co.*, 540 N.W.2d 644 (S.D. 1985).

¹⁵⁰ *Ray v. Cane-Air, Inc.*, 252 So.2d 685 (La. Ct. App. 1971).

¹⁵¹ *U.S. Fire Ins. Co. v. West Monroe Charter Serv., Inc.*, 504 So.2d 93 (La. Ct. App. 1987).

¹⁵² *Cook Flying Serv., Inc. v. U.S. Fidelity & Guar. Co.*, No. 78-167, 1978 WL 1790 (Ark. 1978).

[r]equiring the insurer to show proximate causation.”¹⁵³ However, courts in the state have also held that the insurer has the burden of showing that an aircraft was not operated in accordance with the insurance policy to take advantage of an exclusion.¹⁵⁴ In addition, courts have held in interpreting Arkansas law that where an insurance policy is unambiguous, it is the duty of the courts to apply the policy’s plain language.¹⁵⁵

In a case applying Mississippi law, it was held that the negligent assembly of seeding machinery constituted an “occurrence” such that the insurer was required to reimburse its insured for a third party judgment.¹⁵⁶

For the most part, cases dealing with the issue of exclusions in aircraft insurance policies have occurred in factual situations where the primary concern is recovery for personal injuries or the hull value of the aircraft. Hence, the question is undecided in the region whether failure to comply with federal, state, and local aviation laws, rules, and regulations (no matter how miniscule the irregularity) can operate to relieve an insurer of a duty to honor a policy that includes a provision for damage to crops, property, or to third parties. In a crop damage case applying Texas law, the fact that a pilot had not obtained the proper aerial application permits and licenses did not constitute “operation for an unlawful purpose” and was thus subject to exclusion.¹⁵⁷ Conversely, in a case where a policy specifically excluded aerial spraying activities and the pilot sprayed DDT onto the plaintiff’s tropical fish ponds, a Florida court held that the loss was expressly within the scope of the exclusion and thus not insured.¹⁵⁸

¹⁵³ *Id.*

¹⁵⁴ *National Ins. Underwriters v. Matthews*, 418 S.W.2d 391 (Ark. 1967).

¹⁵⁵ *Silverball Amusement, Inc. v. Utah Home Fire Ins. Co.*, 842 F. Supp. 1151 (W.D. Ark. 1994).

¹⁵⁶ *Aerial Agric. Serv. v. Till*, 207 F. Supp. 50 (N.D. Miss. 1962).

¹⁵⁷ *Hall’s Aero Spraying, Inc. v. Underwriters at Lloyds of London*, 274 F.2d 527 (5th Cir. 1960).

¹⁵⁸ *Federal Ins. Co. v. McNichols*, 77 So.2d 454 (Fla. 1955). *See also Willis v. Willis*, 245 So.2d 302 (Fla. App. 1971) (finding where operator elected not to purchase chemical hazard insurance no residual coverage exists); *U.S. Fire Ins. Co. v. Hilde*, 322 S.E.2d 285 (Ga. 1984) (holding that a statute’s provision (that exclusions for operating an aircraft in violation of federal air regulations or other laws could not void coverage) only applied to general operation of aircraft, and that specific exclusions, such as application of pesticides in violation of law, were properly excluded); *Hink v. Imperial Cas. & Indem. Co.*, 402 N.W.2d 605 (Minn. App. 1987) (finding where policy expressly excludes property damage coverage for application or use of agricultural chemicals policy is not void).

The cases discussed illustrate that, absent judicial or statutory guidance in the particular jurisdiction, careful examination of a contractor's liability insurance umbrella, including an accurate determination of what is insured and what is excluded, is a fundamental first step in hiring a crop dusting contractor for work in the Mississippi Delta.

B. A Shopping List For the Farmer

Because the three states under discussion impose varying degrees of liability in aerial application cases, the farmer responsible for hiring an aerial applicator is well advised to make careful inquiry concerning the type and amount of insurance coverage that the operator carries, and what the terms and exclusions of the policy are. Often states require operators to post a substantial bond or obtain liability insurance to legally conduct cropdusting services. In addition, the farmer should make inquiry with federal, state, and local aviation and agricultural authorities to make sure that the operator and his/her employees possess the required current training, experience, and certificates. Third, the farmer will do well to also make absolutely sure that the aircraft is being operated in accordance with *all* provisions of the insurance policy and applicable federal, state, and local regulations.

Hence, the farmer should ask to inspect the pilot's logbook, the aircraft logbook, and verify that the correct airworthiness certificates, state inspection decals, and radio licenses are current and on board the aircraft in their proper place before a contract of hire is signed. The farmer is also within his/her rights to insist that the pilot hold, and produce a valid medical certificate and demonstrate that he/she has the required level of training and experience. If it is beyond the competence of the farmer to verify these details or assess their significance, recourse to the services of a knowledgeable aviation professional is called for.

The farmer should also determine whether the operator is properly engaged in business under his/her state's laws and has an agent appointed for service. Here, proper inquiry is vital because it may be difficult to obtain jurisdiction if an aerial applicator can only be located and served process with difficulty. The farmer will also do well to determine what sort of business entity the applicator employs, because this can have a significant effect on the extent of the applicator's liability in the event the farmer is sued as a result of an aerial application episode.

C. Practical Considerations For the Attorney

One of the small rewards of being a rural county attorney is access to the collective memories of the clerks, administrators, and lawyers who constitute a living history book, if you will, concerning all things that have happened in the county. One of these small rewards was access to the complete district court file for an aerial application lawsuit that was tried in Madison County, Iowa, which I have relied on heavily for the following information.¹⁵⁹

The lawyer presented with an aerial application case is well advised to assemble an investigation and discovery strategy that encompasses every aspect of the case, including:

- 1) wind and weather conditions at the time of application;
- 2) operator's certification status;
- 3) nature and concentration of the applied compound;
- 4) condition of the aircraft and its equipment;
- 5) any operator's written procedure documents or manual;
- 6) compliance status with all federal, state and local regulations regarding aircraft and operator certification, inspection, equipment, and application;
- 7) altitude, speed, and direction of the aircraft;
- 8) specific target area;
- 9) previous administrative, civil or criminal liability of the applicator;
- 10) any other spraying activities on the property or nearby areas, and if so, by whom and when;
- 11) competent local valuation of damage caused;
- 12) reliable laboratory or forensic sampling services.

CONCLUSION

Application of strict liability in the context of aerial application now appears to be a form of social engineering for which the courts are ill suited. This is a task better left to legislatures. This is particularly so when social engineering in the form of strict liability of the "eco-

¹⁵⁹ See *Freed v. Todd's Flying Serv.*, Law No. 22098, 1 (Madison County Iowa Fifth Judicial District Court, May 6, 1983) (on file with the *San Joaquin Agricultural Law Review*). In this unpublished case where spraying destroyed a grove of mature walnut trees, the district court applied a principle of strict liability to resolve the issue, relying on *Young v. Darter*, 363 P.2d 829 (Okla. 1961); and *Gotreaux v. Gary*, 84 So.2d 292 (La. 1957). The court found dusting with 2, 4-D to be an inherently hazardous activity and found that the defendant was negligent and trespassed (see Findings of Fact and Conclusions of Law at 9). It may thus be said that in at least one district court in Iowa a strict liability theory decided a cropdusting case, a thought that should cheer some in the academic community.

conomic balancing of interests" variety is imposed in the market because of anomalous factual situations.

By comparison to those courts that have imposed a strict liability theory, Arkansas courts in particular have been careful to distinguish the factors that can invoke strict liability in aerial application cases, and to carefully sort out the issue of negligence, if any, of the applicator and his or her employer.¹⁶⁰ The Mississippi legislature took this one step further with legislation that effectively bars strict liability theories of liability in aerial application cases.¹⁶¹

For many of the reasons discussed in this article, invocation of absolute liability principles is both outmoded and erroneous where it is evident aerial application can be made safe with proper practices. In this context, the Louisiana courts appear to still place much reliance on the earlier view that aviation enterprises are inherently dangerous.¹⁶²

In this writer's opinion, imposition of strict or absolute liability in the aerial application context has less to recommend it than it formerly did, particularly because aerial application is an enterprise with well known risk factors that now can be managed with proper care. It is not, as some suppose in this litigious age, an abnormally dangerous activity. It is a valuable enterprise that can be and is made safe with careful attention to detail.

One of the major reasons that courts of a previous era considered strict liability as a theory in aerial application cases was that aviation at that time was an experimental enterprise and the science of aerial application was not well known. However, with the development of reliable aircraft, better equipment and training, and better application methods, exceptional risk has been successfully eliminated from cropdusting. All that remains is manageable risk well addressed by traditional common law negligence and trespass concepts.

Perhaps it is time for the courts that have adopted a strict liability theory in cropdusting cases to acknowledge the advances that have been made in application technology and regulation in the last forty years and revisit their previous holdings. Although a particularly egregious set of facts in a cropdusting case could still result in strict liability, given today's popular fascination with matters of the environment and health, the general advances that have been made in residual de-

¹⁶⁰ See generally *Chapman Chem. Co. v. Taylor*, 222 S.W.2d 820, 826 (Ark. 1949); *J.L. Wilson Farms v. Wallace*, 590 S.W.2d 42, 44 (Ark. Ct. App. 1979).

¹⁶¹ MISS. CODE ANN. § 69-21-15 (2000).

¹⁶² See *Gotreaux v. Gary*, 84 So.2d 292 (La. 1957).

tection technology, and the long-term latent effects of trace amounts of chemicals in the environment.

Along with these concerns may be the prospect of litigation over abstract issues such as toxic torts, emotional distress, and fear of cancer, none of which were major issues in the cases that set the law for the three states of the Mississippi Delta. Yellow journalism of the afternoon talk show variety and self-interested fear mongering typifies the “debate” over these issues today, and the public is not well served when emotionalism and agitation rather than science and law set the terms for the discussion.