The World is Made of Sugar and Smoke: Protecting Louisiana’s Residents Against the Intrusions of Sugarcane Burning

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INTRODUCTION

Imagine a vast piece of beautiful country land. A house sits quietly at the back edge of the lot with a white picket fence surrounding it. A family comprised of a mother, a father, a young son, and a toddler daughter lives happily, enjoying each other’s company while the children run, laughing across the acres. For several weeks out of each year, though, the family is forced to lock themselves indoors with all windows shut tight. The property adjacent to theirs is filled with sugarcane stalks, and farmers are burning the crop in preparation for harvest. This burning produces ash and thick, dark smoke that rolls onto the family’s land, causing breathing problems for both children. Additionally, the ash settles onto the property, creating unsuitable conditions for the children to play outdoors. Their world is made of sugar and smoke.1

Sugarcane farmers contend that burning the stalks is necessary for their crop.2 Sugarcane is a staple crop in Louisiana, and it is the top plant commodity in the state.3 Louisiana has been producing sugarcane since 1751 and commercially since 1795.4 Of Louisiana’s sixty-four parishes, twenty-five parishes produce sugarcane, covering a total of 450,000 acres.5 According to the Louisiana Department of Agriculture and Forestry and the Louisiana State University Agricultural Center, “[i]n 1999, total

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1. German psychiatrist and novelist Alfred Doblin originally said, “The world is made of sugar and dirt.”
4. Id.
5. Id.
production of 15,982,000 tons of sugarcane yielded 1,675,000 tons of sugar. Growers averaged thirty-seven tons of sugarcane and 7,800 pounds of sugar per acre, both new state records. Based on those numbers, the direct economic value from sugarcane exceeded $2 billion. Louisiana produces sixteen percent of the sugar produced in the United States, and the industry employs 32,000 people in the state.

Landowners believe that they should be free from intrusion and that they should have the right to use and enjoy their property exclusively. This belief is not unreasonable, but as residents move into areas once occupied primarily by industries, laws change to satisfy the claims being brought by disgruntled property owners. Residents have raised concerns about health issues, property value diminution, and interference with use of land stemming from the burning of neighboring sugarcane fields.

The state of Louisiana too loosely regulates the burning of sugarcane. Because of the way the laws are written and the requirements necessary to recover from damage, residents are limited in the claims they can bring against farmers. This Article argues that the Louisiana Smoke Management Guidelines for Sugarcane Harvesting should be a mandatory program for all sugarcane farmers to follow. Additionally, trespass laws should be modified to include claims from residents affected by the burning of sugarcane fields. Trespass by intangible materials, such as ash and smoke from sugarcane burning, should be an accepted claim in Louisiana tort law. The intent element of trespass, a common theme throughout this Article, requires reformation as well. Typically, it is the intention, or lack thereof, to actually enter the land of another that is analyzed in a trespass claim. What should be examined, though, is whether there is intent to commit an initial act that the actor should have reason to know will result in an intrusion on another’s property.

6. Id.
7. Id.
8. LOUISIANA SUGARCANE BURNING, supra note 3.
10. For instance, the Right to Farm Act was developed to give immunity to sugarcane farmers if nearby residents suffered damage from smoke and ash residue. LA. REV. STAT. § 3:17(E) (2016).
11. See, e.g., Pignataro, supra note 2.
Part I briefly discusses the importance of sugarcane and crop burning, along with weighing the advantages and disadvantages of the burning practice, as seen by both residents and farmers. It also compares Louisiana’s sugarcane burning regulations to burning regulations in other prominent sugarcane states. Part II of this Article explains the theories of nuisance, negligence, common law trespass, and the modern view of trespass. Further, it discusses the bundle of rights that each theory protects. Part III discusses various cases in which courts have disagreed about when the modern view of trespass is appropriate for an intangible material claim. Finally, Part IV proposes a solution for the regulation of sugarcane burning in order to reduce the amount of ash and smoke transmitted onto residential properties. Additionally, it proposes a suitable way to reform the law of trespass so that no family is ever left locked inside their home with no adequate legal remedy available.

I. SUGARCANE BURNING AS A NECESSARY EVIL

While residents see the benefits of growing sugarcane in the state, they also suffer harm from the practices that farmers use to harvest the crop. Farmers, though, contend that burning sugarcane is necessary to ensure the best and most efficient harvesting seasons.

A. Importance of the Burning Practice

Crop burning is an essential process for the sugarcane industry. Sugarcane farmers are able to get juice from approximately seventy-five to eighty percent of the plant. This juice is then turned into crystallized sugar. The leafy portions of the plant, called trash, do not produce enough sugar to salvage and are removed by burning the fields. Burning gets rid of the green, leafy portions of the plant so that the bulk of the crop

14. Id.
15. Id.
17. Id.
18. Id.
can be brought to mills for processing and packaging.\textsuperscript{19} Additionally, if the trash was left on the fields, decomposition of the leaves could cause the soil to dry out, leading to a substantial decrease in the following year’s crop production.\textsuperscript{20} Alternatives, such as bringing the entire plant to mills for sorting and processing, are far more costly and disadvantageous to both farmers and overall state economies.\textsuperscript{21} Estimates have shown that more than $24 million in extra funds would be needed for transportation and processing costs if burning was not part of the harvesting process.\textsuperscript{22} Burning the fields also shortens the harvest season by up to ten percent, while simultaneously increasing the amount of sugar produced.\textsuperscript{23}

\textbf{B. Residents’ Complaints and the Harm from Burning Practices}

The burning process in crop fields produces ash and smoke, which often naturally drifts in the wind, landing and settling onto neighboring properties.\textsuperscript{24} Residents in states such as Louisiana, Florida, and Hawaii have raised numerous complaints about the particulate matter resulting from sugarcane burns reaching their property.\textsuperscript{25} Such complaints range from devaluation of property to health issues.\textsuperscript{26}

Residents in Maui, Hawaii, addressed their concerns after a recent burn season, complaining that they were forced to keep doors and windows of their homes shut because the smoke and ash drift were heavy enough to cause breathing difficulties.\textsuperscript{27} To make matters worse, many of these individuals lack air conditioning in their homes. Open windows are their only source of ventilation, which is then negatively affected by smoke blowing in from neighboring burning fields.\textsuperscript{28} Other residents alleged that the smoke visibly obscured parts of the town for hours on end.\textsuperscript{29}

Similar complaints exist among Louisiana residents. Due to sugarcane burning, residents are experiencing breathing problems, allergies, and ash-

\begin{itemize}
  \item \textsuperscript{19} Reid, \textit{supra} note 13.
  \item \textsuperscript{20} \textit{Louisiana Sugarcane Burning}, \textit{supra} note 3.
  \item \textsuperscript{21} Stickney, \textit{supra} note 16.
  \item \textsuperscript{22} \textit{Louisiana Sugarcane Burning}, \textit{supra} note 3.
  \item \textsuperscript{23} \textit{Id.}
  \item \textsuperscript{24} See Reid, \textit{supra} note 13.
  \item \textsuperscript{25} \textit{See}, e.g., \textit{id.}
  \item \textsuperscript{26} \textit{See} Pignataro, \textit{supra} note 2; Reid, \textit{supra} note 13.
  \item \textsuperscript{27} Pignataro, \textit{supra} note 2.
  \item \textsuperscript{28} \textit{Id.}
  \item \textsuperscript{29} \textit{Id.}
\end{itemize}
covered properties. Yet, litigation is scarce because of the immunity given to sugarcane farmers under the Right to Farm Act.

C. Lack of Regulation of Sugarcane Burning in Louisiana

Louisiana has taken steps to protect the safety and property rights of residents living around sugarcane fields. One of these steps includes prescribed burns. Prescribed burns are “controlled application of fire in a confined predetermined area to accomplish the harvest of sugarcane under specified smoke and ash management guidelines.”

According to one Louisiana statute, prescribed burns must:

1. Be conducted only under written authority according to the requirements of the commissioner;
2. Be conducted only when at least one certified prescribed burn manager is present on site from ignition until the burn is completed and declared safe according to prescribed guidelines; and
3. Be considered a property right of the property owner if naturally occurring vegetative fuels are used.

The requirement of having a certified prescribed burn manager helps to ensure there is an informed participant throughout the entirety of the burning process. The LSU AgCenter gives farmers the opportunity to complete an approved training program and written test in order to become certified. While Louisiana law requires certified prescribed burn managers to be on site while a burn is taking place, the burn managers are not required to abide by the Louisiana Smoke Management Guidelines for

30. See Stickney, supra note 16.
32. LOUISIANA SUGARCANE BURNING, supra note 3.
34. A “certified prescribed burn manager” under Louisiana Revised Statutes § 3:17(C)(1) is an individual who successfully completes the certification program of the Louisiana State University Agricultural Center or other approved program and is certified by the Louisiana Department of Agriculture and Forestry. L.A. REV. STAT. § 3:17(C)(1) (2019).
Sugarcane Harvesting. If followed, though, the Guidelines would assist farmers in adhering to a procedure to reduce smoke and ash drift onto neighboring properties.

Under the Louisiana Right to Farm Act, the State protects sugarcane farmers from liability, unless claimants can prove negligence on the part of the burners, presenting an issue concerning rights of residents near sugarcane burns that needs to be addressed. With this Act, the State is protecting farmers, even though farmers are not required to follow guidelines to protect residents in return. Many other states, however, have stringent guidelines for smoke management that are mandatory for sugarcane farmers to follow. Each sugarcane state’s individual smoke and ash mitigation program, including Louisiana’s voluntary guidelines, is in compliance with the USDA Agricultural Air Quality Task Force (AAQTF), a Congressionally mandated group that controls air quality among agricultural communities.

For instance, Hawaii’s Department of Health recommends that sugarcane farmers post public notice prior to burning the fields to alert residents that potential side effects of the practice may soon be coming or may already be present. When the same situation arose in Louisiana, the idea was rejected, not once, but twice. In Racca v. St. Mary Sugar Cooperative, Inc., a Louisiana plaintiff contended that a defendant sugarcane company had a duty to have the Department of Transportation and Development (DOTD) put up warning signs on the side of roads to alert drivers that certain areas may be muddy from trucks hauling sugarcane debris and that driving conditions may be affected. The Louisiana First Circuit rejected this idea, stating that although a Louisiana statute allows DOTD to install these signs, there is no mandatory duty

36. LA. DEPT’T OF AGRIC. & FORESTRY & LSU AGCENTER, supra note 12.
37. Id.
41. Id.
43. Racca, 872 So. 2d at 1123.
44. LA. REV. STAT. § 48:346.1 (2016) (stating that during sugarcane harvest season, the DOTD may place temporary road signs to warn motorists of road hazards in those parishes where sugarcane is harvested).
for the DOTD to do so.45 Additionally, the Racca court stated that erection of these warning signs would result in an excess of signs along Louisiana highways during sugarcane season.46

There is no clear justification for the disparity between the encouragement of putting up road signs or passing out flyers in Hawaii yet discouraging the practice in Louisiana. If farmers were encouraged to give public notice of their burns, residents could more adequately prepare their own properties by doing things such as securing additional means of air ventilation when they know their doors and windows will need to be closed.

1. Hawaii

Hawaii has, perhaps, the most rigorous set of smoke and ash management guidelines of all four sugarcane states. Hawaii’s Department of Health mandates a smoke management program for all sugarcane farmers in the state.47 The Department of Health also requires each farmer to have a permit in order to burn fields.48 To apply for a permit, the farmer must provide the Department of Health with their burn schedule, the scale of the burn, a map of the field to be burned, and expected weather conditions, such as wind direction and speed.49 Additionally, farmers pay a fee based on the number of acres to be burned in order to secure their burn permits.50 Certain areas are considered highly sensitive and cannot be burned when conditions are less than perfect; such areas include those near major highways, airports, and adjacent to residences and other public areas.51 When burning is allowed in these areas, farmers are encouraged to send out notices to residents and businesses, warning that burns are soon to occur.52 These notices often take the form of flyers or even road signs.53 Failure to comply with the mandatory mitigation guidelines set forth by the Department of Health results in citations for the field.54

45. Racca, 872 So. 2d at 1123 (citing Bijeaux, 702 So. 2d at 1092).
46. Id.
47. Fletcher, supra note 40, at 21.
48. Id.
49. Id.
50. Id.
51. Id.
52. Id.
53. Id.
54. Id.
2. Florida

While known for its oranges, Florida is the top producing sugarcane state in the country. The industry is regulated by the Florida Forest Service (FFS), which sets forth a list of Fire Weather Tools to ensure the safety and protection of farmers and surrounding residents during sugarcane burns. Sugarcane farmers are able to participate in training available through a local community college to become certified burners, but it is not required. Following a five-step smoke screening process set forth by the FFS, however, is mandatory for all sugarcane farmers during burns. This process includes plotting areas that will be impacted by smoke in up to a thirty degree range; identifying smoke sensitive sites versus critical smoke sensitive sites; identifying fuel type to be used during the burn; and completing a risk minimization checklist, which includes factors such as wind direction and speed. Although no permits are required for burning in Florida, fees are necessary for training.

On October 1, 2019, Florida’s Agriculture Commissioner, Nicole Fried, and Florida Forest Service Director, Jim Karels, announced that the state would be implementing additional requirements for prescribed burns. With these new requirements, the air quality index must be taken into consideration before an authorization will be granted for any burn in the state. Specific to sugarcane burns, the Departments issued the following updated regulations: (1) to reduce the risk of wildfire, there must be an 80-acre minimum between wildlands and burning sugarcane fields on days that are dry and windy; (2) nighttime burning is prohibited without special permission from the Florida Forest Service director; (3) if a fog advisory is in effect, burns are not permitted before 11 a.m.; and (4) where field owners previously had 96 hours to put out muck fires, or fires that

55. Id. at 23.
56. Id.
57. Id.
58. Id.
59. Id.
60. Id. at 27.
61. Id.
63. Id.
burn under decomposing debris, they now have only 72 hours.\textsuperscript{64} Despite already stringent guidelines getting stricter, Florida’s sugarcane industry continues to boom.\textsuperscript{65}

3. Texas

The guidelines for burning sugarcane in Texas are outlined by the Outdoor Burning Rule set forth in Title 30 of the Texas Administrative Code.\textsuperscript{66} This rule prohibits all outdoor burning unless it is expressly listed as an exception.\textsuperscript{67} Naturally, sugarcane is an exception to the burning rule so that farmers can complete their jobs.\textsuperscript{68}

Texas sugarcane farmers must follow conditions set by the Texas Commission on Environmental Quality (TCEQ).\textsuperscript{69} Under these conditions, farmers may be required to give notice of burns to TCEQ.\textsuperscript{70} There is no notice requirement for disposal burns of plant growth on-site; however, disposal burns of crop residue, such as sugarcane, requires either oral or written notice be given to TCEQ prior to the burn, although the time frame for doing so is not apparent.\textsuperscript{71} The notice must include a map of the field, the start and approximate end times of the burn, and the name of the farmer responsible for the burn being conducted.\textsuperscript{72}

Regardless of notice requirements, farmers are required to check for “No Burn” warnings, which prohibit burning on certain days when conditions make it more probable for fire to spread.\textsuperscript{73} Smoke and ash should also refrain from entering a 300-foot radius of sensitive areas.\textsuperscript{74} The TCEQ identifies sensitive areas for smoke and ash as including any area that contains humans, livestock, or live vegetation.\textsuperscript{75} The only way that farmers can burn within this radius of sensitive areas is with written consent from the occupants and owner.\textsuperscript{76} Even with these strict standards

\textsuperscript{64} Id.

\textsuperscript{65} Florida grows sugarcane on 433,000 acres of land in the state. Fletcher, supra note 40, at 23.

\textsuperscript{66} 30 TEX. ADMIN. CODE §§ 111.201–111.221.

\textsuperscript{67} Id.

\textsuperscript{68} Id.

\textsuperscript{69} Fletcher, supra note 40, at 22.

\textsuperscript{70} TEX. COMM’N ON ENVTL. QUALITY, OUTDOOR BURNING IN TEXAS: FIELD OPERATIONS 13 (2015).

\textsuperscript{71} Id. at 13.

\textsuperscript{72} Fletcher, supra note 40, at 22.

\textsuperscript{73} Id. at 22–23.

\textsuperscript{74} TEX. COMM’N ON ENVTL. QUALITY, supra note 70.

\textsuperscript{75} Id.

\textsuperscript{76} Id.
for sugarcane farmers, there is still no civil remedy for affected landowners.

II. BUNDLE OF RIGHTS AND CLAIMS TO PROTECT

Property rights for immovable property include the right “to possess, use, and dispose” of the land that one owns.77 These rights are collectively called the owner’s “bundle of rights,” so named to resemble a collection of sticks in a bundle.78 Each type of property claim protects a different stick in the bundle. It is widely accepted that the right to prevent intruders from entering one’s land is the most important element of the bundle of rights.79

A. Nuisance

A nuisance claim protects a different right than a trespass claim.80 While trespass claims protect exclusive possession of land, a claim in nuisance protects and gives a remedy to a landowner for loss of the exclusive use of his property.81 A plaintiff bringing a claim for nuisance need not prove physical damage;82 however, the interference with use and enjoyment of land must be intentional for a claim of nuisance or trespass to prevail.83 Nuisance claims have traditionally been the major source of

78. The “bundle of sticks” characterization of property rights is typically found in common law. See, e.g., Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979) (“[s]ticks in the bundle of rights that are commonly characterized as property . . .”). Civil law does have similar ideas.
79. See, e.g., Kaiser Aetna, 444 U.S. at 176; see also Richard R. Powell, Powell on Real Property, § 64A.01 (Michael Allen Wolf ed., 2000) (“The modern trespass action has evolved into a means by which an owner of property protects against intrusions onto the land or interferences with exclusive possession of the land, a primary attribute of the possessory interest in property being the power to exclude others from using it.”).
81. Id.; see Selmi & Manaster, supra note 9.
82. Terence J. Centner, Damages from Pesticide Spray Drift under Trespass Law, 41 Ecology L. CURRENTS 1, 7 (2014) (citing Johnson v. Paynesville Farmers Union Coop Oil Co., 817 N.W. 2d 693 (Minn. 2012)).
relief for intangible intrusions, such as particulate matter, smoke, light, sound, or vibrations intruding onto another’s land. These intrusions are not traditionally thought to be physical and direct, so much as indirect.

In Louisiana, specifically, nuisance claims typically fall under Civil Code articles 667 through 669, effectively prohibiting one landowner from infringing upon his neighbor’s right to use his own property. Article 669 deals directly with smoke invasions, but it gives no specific framework for proving the claim in its text. The Louisiana First Circuit has analyzed the three articles as fitting together with each other. The court noted that Article 667 prohibits acts that would cause damage or inconvenience to a neighbor, while Article 668 contrasts to say that some inconveniences are inescapable. The First Circuit went on to note that Article 669 indicates that some inconveniences, no matter how necessary, are unacceptable; examples in the text of the Article are industrial smoke and odors.

Other jurisdictions have tended to follow the same scheme. For instance, one court held that odors from a pig feeding lot did not fulfill requirements to be a trespass because there was no physical entry onto the land of the plaintiff. Thus, nuisance was the only remedy available to the plaintiffs. As times change, however, some of these intrusions are starting to be claimed under other areas of law in addition to nuisance.

B. Trespass

While there are many theories as to the history of the trespass claim, one thing has remained true through the years—a claim in trespass protects

86. LA. CIV. CODE arts. 667–669.
87. LA. CIV. CODE art. 669; see also, McGee v. Yazoo & M. V. R. Co., 206 La. 121, 19 So. 2d 21 (La. 1944).
89. Id. at 343.
90. Id.
92. Id.
93. The following are four theories regarding where the claim of trespass originated: 1) trespass is derived from the common law felony appeal, in order to allow for the recovery of monetary damages for the value of stolen property,
a landowner’s right to exclusive possession of the property. Contrary to nuisance, a common law trespass claim necessitates only that a tangible object, human or otherwise, enter the land of another and disturb the right to exclusive possession that the property owner enjoys. Typically, common law trespass claims require a physical presence on the land.

Some jurisdictions today, including Alabama, Arkansas, California, Florida, Kentucky, Maine, Minnesota, Nebraska, New Jersey, Oregon, and Wyoming, are moving to a more modern view of trespass. This modern view allows plaintiffs to bring trespass claims for intrusions by both tangible and intangible objects. In order to prove trespass by an intangible object, a plaintiff must prove: “1) an invasion affecting an interest in the exclusive possession of his property; 2) an intentional doing of the act which results in the invasion; 3) reasonable foreseeability that the act done could result in an invasion of the plaintiff’s possessory interest; and 4) substantial damages to the res.”

Direct versus indirect entry onto another’s land is a principle that once helped to determine if a claim should be brought under trespass or nuisance. Direct intrusions are seen most under the theory of trespass. An intrusion is deemed to be indirect if an intervening force carries the substance onto the plaintiff’s land. For instance, if wind or water carries pollutants onto a resident’s property, the intrusion is deemed indirect, and residents suffering damage may be unable to recover under a claim of

where recovery of the property itself was unavailable; 2) trespass developed to allow recovery of damages to stolen property, where only the recovery of the property was otherwise allowed; 3) trespass arose as a specialized form of suit for damages; 4) trespass was developed as a writ for remedy to breaches of the king’s peace. Powell, supra note 79.

94. W. Page Keeton et al., supra note 9.
95. See Restatement (Second) of Torts § 158(a) (Am. Law Inst. 1965); Centner, supra note 82, at 5; Phillips v. Town of Many, 538 So. 2d 745, 746 (La. Ct. App. 3d Cir. 1989) (quoting Patin v. Stockstill, 287 So. 2d 780 (La. Ct. App. 1st Cir. 1975)).
96. See Falcone III & Utain, supra note 85.
98. Centner, supra note 82, at 5.
101. Id.
102. Id. (quoting Williams v. Oeder, 103 Ohio App. 3d 333, 338, n.2 (Ohio Ct. App. 1995)).
trespass. Since these ideas of direct and indirect often carry harsh results for plaintiffs that would not allow recovery when it is warranted, the principle has been discontinued in most courts today. Generally, courts rely simply on the classification of materials as either tangible or intangible.

The question of whether an intrusion is caused by the tangible or intangible is the subject of much debate. The court in *Martin v. Reynolds Metals Co.* acknowledged that minute particles collectively causing invasion and physical intrusion would clearly form a trespass claim “but for the size of the particle.” In *Martin*, a defendant aluminum reduction plant was accused of causing fluoride compounds in gases and particulate matter to be released onto plaintiff residents’ property. Plaintiffs alleged damage to their land, contending that they could no longer graze their cattle or allow the cattle to drink the water, which was contaminated by the particles. The defendant, Reynolds, argued that a trespass is only actionable where there is a direct invasion, rather than a consequential invasion. Similarly, Reynolds urged that all intrusions involving minute particles and materials must fall under nuisance claims.

The *Martin* court refused to rule in favor of the defendant company on either of their arguments. Rather than the dimensional test laid out by Reynolds, the Oregon Supreme Court adopted a “force and energy” test, which allows trespass claims to prevail as long as modern science is able to perceive the “molecular and atomic world of small particles” that make up the intruding material. The court explained its theory by saying that “[t]he force [of particulate matter intrusions] is just as real if it is chemical

103. *Id.*
104. *Id.* (citing W. Page Keeton et al., *Prosser and Keeton on the Law of Torts* § 13, at 71 (5th ed. 1984)).
105. See, e.g., *Borland v. Sanders Lead Co.*, 369 So. 2d 523, 527 (Ala. 1979) (discussing the rise of the “fictitious ‘dimensional’ test”) (citing 1 Harper & James, *Torts*, § 1.23 (1946)).
108. *Id.* at 791.
109. *Id.*
110. *Id.*
111. *Id.* at 792.
112. *Id.* at 793.
113. *Martin*, 342 P.2d at 793. See also *Borland v. Sanders Lead Co.*, 369 So. 2d 523, 527–28 (Ala. 1979) (citing *Martin v. Reynolds Metals Co.*, 342 P.2d 790 (Or. 1959)).
in nature and must be awakened by the intervention of another agency before it does harm.”¹¹⁴ In other words, the Martin court believed that indirect invasions, which necessitate another agent to carry them to a landowner’s property in order to do harm, are still considered invasions under trespass because of their ability and probability to cause harm to the land and residents. Therefore, intrusions by particulate matter, under the Martin theory, can be considered trespass, as well as nuisance, if the matter can be measured by senses and, more importantly, science.¹¹⁵

Other courts have stated that allowing intangible material trespass claims forms a line between trespass and nuisance that is unidentifiable and blurred.¹¹⁶ Asserting that nuisance and trespass claims can be brought in the same action does not mean that they no longer protect separate rights.¹¹⁷ Each claim still identifies with a certain strand in the bundle of rights, but now the claims overlap more than they have in the past.

The substantial damage element of the modern theory of trespass is an ambiguous concept. There are no court cases directly answering the question of what constitutes “substantial damage” for the purposes of satisfying this element.¹¹⁸ The Oregon Supreme Court, in Wilson v. Parent, clearly noted that if the damage to the res, or property, is de minimis, or minimal, there can be no action in trespass.¹¹⁹ Because the Wilson court primarily analyzed a claim for nuisance, it noted that while the damage to the res may be de minimis, the damage to the use and enjoyment of the property can still be substantial, thus resulting in preclusion of trespass claim but allowing recovery for nuisance.¹²⁰ Considering this case in conjunction with the theory that trespass and nuisance are not mutually

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¹¹⁵. See id. at 792.
¹¹⁷. Borland, 369 So. 2d at 527.
¹¹⁸. While no case specifically defines what “substantial damage” means, the court in Borland explains that “actionable damage to the res” is “caused by such acts usually result[ing] in a diminution of the use value of the property.” Further, the court stated that damage to the res interferes with an owner’s right to exclusive possession. Id. at 530.
¹¹⁹. See Wilson v. Parent, 365 P.2d 72 (Or. 1961) (holding that a son-in-law’s hand gestures and obscene words yelled across neighboring property constituted only a nuisance because it was “reasonably obvious” that the damage was de minimis).
¹²⁰. Id. at 72.
exclusive claims, it is reasonable to conclude that other outcomes are possible as well: damage to the use and enjoyment may be de minimis, while damage to the res is substantial; or damage to both the use and enjoyment and to the res may be equally substantial, thus satisfying a claim in both trespass and nuisance.

In common law trespass, an intruder usually needs intent only to enter the land of another person. Mistake of law or mistake of fact is not a defense for common law claims of trespass. Therefore, claiming ignorance as to the ownership of the land does not avoid liability for a trespass claim. Most importantly, intent in common law trespass has been held to extend to those who would be knowledgeable of the results of their actions. If the same policies apply to the intent element of the modern theory of trespass as they do to the intent element in common law trespass, then a claim can only be successful if the defendant had the intention to cause the intrusion, or else had a “reasonable foreseeability that the act done could result in invasion.”

C. Negligence

The theory of negligence is another tort claim that may help landowners recover for particulate matter invasions. As it stands, Louisiana sugarcane farmers are protected from liability for damages unless they are proven negligent in their burning practices. In Louisiana, negligence is typically analyzed based on a duty-risk analysis. The five elements to a negligence analysis are: (1) duty, (2) breach, (3) cause-in-fact, (4) scope, and (5) damages.

122. Centner, supra note 82, at 5 (noting RESTATEMENT (SECOND) OF TORTS § 158 (AM. LAW INST. 1965)).
123. See Centner, supra note 82, at 5.
124. See id.
125. Id. (citing State v. Courchesne, 998 A.2d 1, 103 (Conn. 2010) (noting that “the fact finder may infer intent from the natural consequences of one’s voluntary conduct”); see also RESTATEMENT (SECOND) OF TORTS § 158 (AM. LAW INST. 1965) (under which intent “is limited to the consequences of the act,” even if not intended).
129. Id.
The duty element contends that a defendant has a standard of care that he is expected to live up to and follow, while the breach element comes into play when the defendant fails to conform to that duty. The cause-in-fact element of negligence says that the defendant’s noncompliance with the expected standard of care for his industry is the main cause of the plaintiff’s injuries. In other words, had the defendant met his standard of care, the plaintiff would not have suffered damages. Scope indicates that there is a legal remedy for the plaintiff and that the defendant’s conduct was the legal cause of the plaintiff’s injuries. Finally, the plaintiff must prove that he did in fact suffer actual damages. In order to avoid being liable for negligence, a defendant must only negate one of the five elements. When one element fails, the entire claim fails. Therefore, in the case of sugarcane farmers, only allowing plaintiffs to bring claims for negligence affords far weaker remedies and fewer successes.

III. COURTS SPLIT TOO FREQUENTLY OVER THE ISSUE OF INTANGIBLE TRESPASS

Without much rhyme or reason, courts have split over whether to allow particulate matter intrusions to be claimed under trespass or whether to require the actions to be brought under nuisance.

A. Permitting Recovery Under Claims of Trespass

Some courts have recognized the more modern view of the trespass claim and allowed plaintiffs to recover under trespass for particulate matter intrusions. In B & R Luncheonette, Inc. v. Fairmont Theatre Corp., a theatre was held liable for trespass when mist from a cooling tower fell onto the neighboring luncheonette’s property. The New York court’s analysis centered on the idea that the plaintiff could not use the property for the purposes intended, namely as an outdoor garden, because of the mist.

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130. Id.
131. Id.
132. Id.
133. Id.
136. Id.
In *Ream v. Keen*, the Oregon Supreme Court held that smoke from the burning of a nearby grassy field was a material entering property, thus constituting a trespass. Relying on the test set forth in *Martin*, the *Ream* court determined that the nature of the smoke intrusion on the plaintiff’s property was not trivial, the smoke was tangible, and thus, the intrusion and trespass could not be ignored. Furthermore, in *Lunda v. Matthews*, plaintiffs recovered under trespass in an action brought against a defendant cement company that allowed dust from the cement plant to float onto plaintiffs’ land.

Most notably, the Alabama Supreme Court, in *Borland v. Sanders Lead Co.*, held that trespass was actionable for a plaintiff who claimed lead particulates and sulfoxide gases were being transported onto his property from a neighboring smelting company. The Borlands owned property on which they raised cattle, grew crops, and owned a pecan orchard. Sanders Lead Company began a business in 1968 that specialized in recovering lead from used car batteries. Sanders Lead Company was located just across the road from the Borlands’ property. On the edge of their land, nearest to the Borlands, the Company placed equipment with an installed filter system to prevent lead particles from being emitted into the air. The filter system caught fire twice and did not function properly. The Borlands contended that lead and sulfoxide particles were deposited onto their land, causing a “dangerous accumulation.”

The trial court held that because defendants complied with the Alabama Air Pollution Control Act, they were immune from all liability that would result from their business. Further, the trial court stated that the Borlands’ land increased in value based on its proximity to the lead plant, and thus, the plaintiffs could not recover. The appellate court reversed the trial court, stating that the Alabama Air Pollution Control Act

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138. *Id.*
141. *Id.* at 525.
142. *Id.*
143. *Id.*
144. *Id.*
145. *Id.* at 526.
146. *Id.*
149. *Id.*
expressly states that it does not limit liability. In order to allow the plaintiffs to recover under trespass, the court relied on the test set out in Martin v. Reynolds Metals Co., which determines that a trespass claim can be brought for an intangible intrusion if the material can be perceived by modern science. The court also set out the requirement that plaintiffs prove damage to property in order for an intangible intrusion to be recoverable under trespass.

B. Denying Recovery Under Claims of Trespass

On the other hand, some courts have persistently held that trespass is solely for tangible materials. These courts have ruled that the only remedy for plaintiffs claiming intrusion or interference from intangible items or particulate matter is a claim in nuisance. Some courts have criticized the Martin theory that particulate matter can be considered worthy of a trespass claim. For example, the court in Ryan v. Emmetsburg denied an action in trespass brought by plaintiffs complaining of gases and odors coming from a garbage disposal plant, rationalizing that trespass must be a natural and physical intrusion by tangible material. The court went on to say that these intangible intrusions, such as odors or gases, should be classified solely as nuisance claims.

Further, in a stark contrast to Lunda, the Utah Supreme Court in Thackery v. Union Portland Cement Co. held that a landowner could not recover for trespass from a cement company that allegedly allowed dust, smoke, and small particles of cement to settle onto the plaintiff’s property. The court held that the cement company was free from liability

150. Id. (citing ALA. CODE § 22-28-23 (2019)).
151. Id.
152. Id. at 527–28.
153. Id. at 529.
155. See, e.g., Thackery, 231 P. at 813; Johnson, 817 N.W.2d at 693.
156. Johnson, 817 N.W.2d at 703 (citing John Larkin Inc. v. Marceau, 959 A.2d 551, 555 (Vt. 2008)).
158. Id. at 435.
160. Thackery, 231 P. at 813.
because it did not directly commit an act which “interfered with the physical occupancy of the premises.”

Additionally, in John Larkin, Inc. v. Marceau, the Vermont Supreme Court stated that because “the ambient environment always contains particulate matter from many sources,” opening trespass claims up to particulate matter intrusions “subject[s] countless persons and entities to automatic liability for trespass absent any demonstrated injury.” The courts in both Bradley v. American Smelting & Refining Co. and Borland quickly addressed this floodgate issue by reminding defendants of the requirement that it be “reasonably foreseeable that the intangible matter ‘result in an invasion of plaintiff’s possessory interest,’ and that the invasion caused ‘substantial damages’ to the plaintiff’s property.” The Borland court effectively suggested recovery would not be as easy as claiming that dust from a neighbor’s property traveled onto a resident’s land by a gust of wind, but rather that the resident would have to prove that the neighbor caused the effect and could have known that the dust would have traveled there.

IV. REFORMING THE LAW TO PROTECT RESIDENTS AGAINST SUGARCANE RESIDUE

Particulate matter intrusion, specifically from sugarcane residue, is an area of the law that needs revision. Pursuant to Louisiana’s Right to Farm Act, plaintiffs are typically only afforded relief if they can prove negligence on the part of sugarcane farmers. Plaintiffs should be able to recover under any state tort claim that suits their needs if they are harmed by ash and smoke from sugarcane burning. Additionally, courts are

165. Johnson, 817 N.W.2d at 703 (citing Borland, 369 So. 2d at 529; accord Bradley, 709 P.2d at 791); see also RESTATEMENT (SECOND) OF TORTS § 158 cmt. 1 (AM. LAW INST. 1965).
166. Borland, 369 So. 2d at 529.
168. During several cases of claims for trespass or nuisance, defendants have urged that plaintiffs have no right of action when it comes to particulate matter, smoke, or the like floating through the air because federal law has preempted all
extremely indecisive about what constitutes tangible or intangible materials, and Louisiana courts specifically have not dealt with the issue on a notable scale.\textsuperscript{169} Laws regarding intangible intrusions and sugarcane farmer liability must be reformed to protect residents, while allowing farmers to continue their jobs.

\textit{A. Negligence is Not an Adequate Remedy for Particulate Matter Intrusions}

As discussed above, at least one Louisiana court has allowed plaintiffs to recover in nuisance for particulate matter intrusions on their property.\textsuperscript{170} To avoid deterring the sugarcane economy, however, the Right to Farm Act grants immunity to sugarcane farmers if they are not proven negligent in their burning practices. Thus, farmers are protected from claims in trespass and nuisance.\textsuperscript{171} Some farmers may argue that there is no need for residents to bring an action against them in trespass or nuisance if they can recover under negligence. Unfortunately, negligence is a very distinct tort claim.\textsuperscript{172}

Negligence requires that a plaintiff prove that the defendant had a duty to exercise a certain standard of care; failed to meet that standard; the failure was a direct cause of injury; the failure was a legal cause of the injury; and there were actual damages.\textsuperscript{173} In Louisiana, the \textit{Louisiana Smoke Management Guidelines for Sugarcane Harvesting} are solely voluntary.\textsuperscript{174} While the Guidelines do constitute a standard of care, it is difficult to prove that sugarcane farmers have an express duty to follow state tort claims dealing with air pollution. See, e.g., Merrick v. Diageo Ams. Supply Inc., 805 F.3d 685 (6th Cir. 2015). It is well settled, though, that the Environmental Protection Agency’s Clean Air Act has a states’ rights savings clause that allows states to regulate air pollution by offenders. 42 U.S.C. § 7416 (2012); see, e.g., Merrick, 805 F.3d at 690. The rationale is that the EPA regulates only acceptable national ambient air quality standards (NAAQS), but states are left to make their own regulations concerning how these standards are met. See, e.g., Merrick, 805 F.3d at 691. Therefore, trespass claims can be brought under state tort laws for actions resulting from incidents such as sugarcane burns.

\begin{itemize}
  \item 170. Critney v. Goodyear Tire & Rubber Co., 353 So. 2d 341 (La. Ct. App. 1st Cir. 1977). \textit{See also} discussion supra Section II.A.
  \item 171. LA. REV. STAT. § 3:17(E) (2016).
  \item 172. \textit{See supra} Section II.C.
  \item 174. LA. DEP’T OF AGRIC. & FORESTRY & LSU AGCENTER, \textit{supra} note 12, at 1.
\end{itemize}
this standard when the procedures are not mandated by the State. Therefore, negligence claims based on a farmer’s noncompliance with voluntary state guidelines would likely fail on the first element of the duty-risk analysis alone. If farmers are not required to comply with the Smoke Management Guidelines, there must be some other set of standards that farmers in the fields follow in order to practice their burning techniques and set a standard of care.\textsuperscript{175}

Additionally, some sugarcane farmers may say that they cannot be liable for the smoke and ash if they are responsible with the management and care of the actual fires. In Roseberry v. L.O. Brayton \& Co., the Louisiana First Circuit held that the general rule for fires is that the “person who intentionally kindles a fire on his premises for a lawful purpose is liable for damages resulting therefrom if he is negligent either in starting it or in guarding against its spread.”\textsuperscript{176} The court went on to say that the fire starter has a duty to exercise reasonable care in managing the fire from start to finish.\textsuperscript{177} One could argue, though, that there is a major difference between being responsible for a fire and being responsible for the smoke and ash that results from the fire. In the Roseberry case, the issue arose when an unattended stump that was still smoldering relit, and the fire spread to an adjoining property.\textsuperscript{178} This lack of attendance to a fire can signify negligence on the part of sugarcane farmers as well, but failing to mitigate smoke and ash damage is a different situation entirely.

Finally, allowing negligence claims to succeed for ash and smoke residue that blows on to adjacent properties opens questions of where to draw the line in litigation rights. To plaintiffs in litigation with sugarcane farmers, suits are often about more than just recovering for damages.\textsuperscript{179} These landowners are working to protect their possessory interests and

\textsuperscript{175} It should be noted that a research of experienced farmers showed that sugarcane farmers prefer intuition, or prior experience and handling problems as a whole based on the way they look and feel, rather than analytical data. Fletcher, supra note 40, 8–9.

\textsuperscript{176} Roseberry v. L.O. Brayton \& Co., 4 So. 2d 777, 779 (La. Ct. App. 1st Cir. 1941).

\textsuperscript{177} Id.

\textsuperscript{178} Id. at 778.

\textsuperscript{179} Notably, some Florida residents banded to seek class action status in a June 2019 lawsuit against twelve sugarcane companies, alleging that sugarcane burning exposed them chemicals, health risks, property damages, and devaluation of property. The lawsuit was filed in the United States District Court for the Southern District of Florida and was allotted to Judge Rodney Smith. Complaint, Clover Coffie, et al. v. U.S. Sugar Company, et al., (S.D. Fla. 2019) (e No. 9:19-ev-80730), https://www.classaction.org/media/coffie-et-al-v-florida-crystals-corporation-et-al.pdf [https://perma.cc/XX3B-AREW].
property that often has monetary and sentimental value to them. Trespass and nuisance claims are needed to protect these specific concerns of landowners. If negligence can be brought in place of these express claims, courts expand the theory of negligence to a wider range of scenarios. Negligence, in this case, could go so far as to include intentional acts causing infringement on a neighbor’s property. This result is far more than the theory is intended to encompass. Negligence is useful to hold sugarcane farmers liable if they fail to monitor their burns properly or otherwise fail to take all necessary and mandatory precautions for a safe field burn, but trespass or nuisance claims are also needed to protect landowners’ right to exclusive possession and use and to ensure that claims are legitimate so that the floodgates of litigation remain closed.

B. Court Actions and the Reformation of the Law

Court opinions on the modern theory of trespass in relation to particulate matter resulting from industrial processes could be the starting point of improved burning practices and regulations in Louisiana. Courts must be consistent in determining whether specific particulate matter counts as an intangible or tangible intrusion. Because of an absence in uniformity, courts are free to recognize materials, such as smoke and ash, as tangibles in one case, while another court presented with the same facts may decide that the material is an intangible inappropriate for a trespass claim.¹⁸⁰

A second area of the trespass law requiring reformation for particulate matter cases is the element of intent. Cases and courts have long differed on what constitutes intent, but intent inquiries are often far more fact intensive than some other elements of torts.¹⁸¹ Still, to adequately resolve the issue of particulate matter trespass claims, there must be a uniform decision among Louisiana courts as to what constitutes the actor’s intent.

¹⁸⁰ See, e.g., Martin v. Reynolds Metals Co., 342 P.2d 790, 791 (1959) (holding that fluoride compounds released and landing on plaintiff’s land constituted a trespass); Borland v. Sanders Lead Co., 369 So. 2d 523, 526 (Ala. 1979) (holding that a buildup of lead particles on a plaintiff’s land constituted a trespass); Bradley v. Am. Smelting & Ref. Co., 709 P.2d 782, 784 (Wash. 1985) (holding that heavy metal particles are able to be considered under a claim for trespass).

In order to resolve the issue and find a common ground for all courts to rely on, the Louisiana legislature must reform the law of trespass to make it clearer and more easily construed. The legislature of any state is the most obvious choice for starting reformation because lawmakers are in the best position to reconcile the most difficult differences and reach a resolution that will be uniform for all cases.182

1. Legislative Reformation of the Substantial Damage Requirement in Trespass

The Martin court made a clear implication that, when science and senses can measure particulate matter invading a neighbor’s property, courts should analyze the intrusion the same way that they would analyze an intrusion by bigger particles or objects.183 While light and sound are made of detectable particles, particulate matter differs in that it can settle onto property, causing unique issues for residents and the land that may go undetected for some time.

While tangible trespass claims do not require a showing of damages, intangible trespass claims do.184 Both tangibles and intangibles can cause damage, but the difference for intangible materials resides in the delay before damages are identifiable. Intangibles, such as smoke and ash, may cause immediate sediment settlement on land, prompting an action for trespass under the modern theory of intangible intrusions, but the same ash and smoke may cause health problems for residents. These health issues can range from immediate breathing problems and allergic reactions to asthmatic issues that do not present themselves for several months or years.185

182. See Henry E. Smith, Exclusion and Property Rules in the Law of Nuisance, 90 Va. L. Rev. 965, 1032–33 (2004) (“In light of their greater expertise and ability to deal with the problem on a field-wide basis, these statutory and administrative schemes are probably more successful than a judicial conservation governance regime could have been.”).
183. Martin, 342 P.2d at 790.
184. See id. at 795; Bradley, 709 P.2d at 790–91; Borland, 369 So. 2d at 530.
185. According to the Centers for Disease Control and Prevention (CDC), dust, dirt, soot, smoke, and drops of liquid, which can result from sugarcane burning, are all intangible particles, or particulate matter, that pose health concerns. Some health risks identified by the CDC include eye irritation, lung and throat irritation, breathing difficulties, and lung cancer. Particle Pollution, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/air/particulate_matter.html [https://perma.cc/Q9HN-57PV] (last visited Feb. 2, 2020).
Additionally, the regular presence of heavy smoke may cause a
devaluation of property, but this devaluation may not be recognized until
plaintiffs try to sell their property years later and realize that no one is
interested in buying the land because of the close proximity to burning
sugarcane fields. The problem that arises from delayed damages and the
requirement of substantial damage in the modern theory of trespass is the
possibility that prescriptive periods have elapsed by the time damages
present themselves. Both trespass and negligence claims have a
prescriptive period of one year. Thus, the landowners would be barred
from bringing claims under these theories if damages arose more than one
year after the smoke and ash drift.

As previously discussed, the Louisiana First Circuit has analyzed
particulate matter invasions under the law of nuisance. Typically,
Louisiana courts have applied a longer or suspended prescriptive period to
actions for nuisance. Even so, the prescriptive periods under trespass
and negligence mean that plaintiffs are restricted to bringing a nuisance
claim for the damage sustained as a result of the smoke and ash intrusions.
Yet, nuisance claims limit the remedies that plaintiffs are afforded, with
injunctions being the most common, and the claims do not serve to fully
protect harmed residents from their serious concerns for their property.

This delayed damage aspect demonstrates the need for reformation of
the substantial damage requirement for intangible intrusions. While it is
admittedly unreasonable to rid the modern theory of trespass altogether of
a requirement that will distinguish actual claims from frivolous claims, it
is arguable that the substantial damage requirement is not the proper way
to go about the analysis. There must be some way to distinguish between
substantial intangible trespass claims and frivolous intangible trespass
claims. A reasonable substitution for the substantial damage element may

186. LA. CIV. CODE art. 3492 (2019).
187. See discussion supra Section II.A; see also, Critney v. Goodyear Tire &
Rubber Co., 353 So. 2d 341 (La. Ct. App. 1st Cir. 1977). The adequateness of
Louisiana Civil Code articles 667–669, as a whole, is important, but outside the
scope of this Article.
188. See Dean v. Hercules, Inc., 328 So. 2d 69 (La. 1976) (holding that
prescription for a nuisance claim would run from the date damage became
apparent); see also Craig v. Montelepre Realty Co., 252 La. 502, 211 So. 2d 627
(La. 1968) (holding that the prescriptive period of one year “is without merit for
the evidence unmistakably shows that the operating cause of the injury is a
continuous one, giving rise to successive damages from day to day, and, under
our law, in such cases prescription, whatever the length of time, has no
application.” (quoting Devoke v. Yazoo & M.V.R. Co., 211 La. 729, 30 So. 2d
816, 822 (La. 1947)).
be simply to follow the same rationale and reasoning presented by the Martin court when it determined what constituted an intangible material worthy of a trespass claim.\textsuperscript{189} In other words, the Louisiana Legislature or other governing bodies could impose a requirement that to bring a claim in trespass for an intangible material intrusion, there must be some proof of actual presence of the particulate matter. For instance, the ash and smoke produced by sugarcane burning, just like pesticides or dust,\textsuperscript{190} must be detected, visually observed, and measured by the senses and science. On the other hand, claims for intrusions of light and sound would still be limited to nuisance because there is no actual presence of substantial atomic particles present on the land. The resulting harm from intrusions by light and sound particles “settling” on the land is not only \textit{de minimis} and virtually nonexistent,\textsuperscript{191} but there is no easy way to measure the amount drifting specifically onto a plaintiff’s land. These claims for trespass based on intrusions of light and sound can and should be dismissed as frivolous through vehicles of summary judgment and the like.

2. The Doctrine of Contra Non Valentem for Particulate Matter Trespass

Prescription is the time granted for a harmed person to bring a claim for the damage suffered.\textsuperscript{192} While the prescriptive period for trespass is one year,\textsuperscript{193} prescription can be suspended or interrupted.\textsuperscript{194} Louisiana recognizes the jurisprudential doctrine of \textit{contra non valentem agere nulla currit praescriptio} (contra non valentem) in an effort to give harmed parties a way to suspend prescriptive periods when necessary or justifiable.\textsuperscript{195} The doctrine is traditionally applied in three circumstances: (1) where there is a cause which prevented the court from recognizing the plaintiff’s action; (2) where there is a condition of a contract which prevents the action from being brought; or (3) where the defendant has

\textsuperscript{189}. Martin v. Reynolds Metals Co., 342 P.2d 790, 792 (1959) (holding that if science is able to perceive the “molecular and atomic world of small particles” that make up the intruding material, then the material can be considered an intrusion for a claim of trespass).

\textsuperscript{190}. \textit{See generally} Lunda v. Matthews, 613 P.2d 63 (Or. Ct. App. 1980).


\textsuperscript{193}. \textit{L.A. CIV. CODE} art. 3492 (2019).

\textsuperscript{194}. Janke, \textit{supra} note 192.

\textsuperscript{195}. \textit{Id.} The Latin phrase translates to “a prescription does not run against one who is unable to act.”
prevented the plaintiff from availing himself of the action. Louisiana courts have more recently applied contra non valentem in a fourth instance, which involves the cause of action not being known or knowable to the plaintiff by no fault of his own or of the defendant.

This fourth application of the doctrine is suitable for landowners wishing to bring a trespass suit against sugarcane farmers when the damage does not present itself until after the one-year mark. Nevertheless, there are some hurdles a plaintiff must overcome to prove that contra non valentem is appropriate. The Louisiana Second Circuit, in Quick v. Aetna Casualty & Surety Co., stated that prescription begins to run when the plaintiff has actual or constructive knowledge of the tortious act, actual or constructive knowledge of the damage, and the causal relationship between the act and the harm. The Louisiana Supreme Court defined constructive knowledge as “whatever is notice enough to excite attention and put the owner on his guard and call for inquiry.”

In the case of sugarcane field burning affecting a landowner, it is possible that the landowner may have actual or constructive knowledge of the tortious act without having knowledge of the damage itself. For example, if a landowner does not develop asthma or other respiratory issues until more than a year after the initial field burning, he cannot be said to have had knowledge of the respiratory damage caused by the burning. Thus, he should be able to use the doctrine of contra non valentem to recover damages against the sugarcane farmer as long as there is a causal link between the smoke or ash and respiratory conditions. Contra non valentem is one feasible way to solve the delayed damages concerned facing landowners harmed by sugarcane burning practices.

3. Legislative Reformation of the Intent Element of Trespass

In a trespass claim, a proper analysis regards an actor’s intention to commit the initial act, rather than his intention to interfere with property rights or use and enjoyment of land. Specifically, a sugarcane farmer’s liability should be determined based on the knowledge the farmer has gained from conducting research into the areas around their farm, coupled with the exercise, or lack thereof, of reasonable care to protect those...
areas. As the Bradley and Borland courts mentioned, to avoid a floodgate issue, trespass claims for intangible materials can only be successful if the defendant can reasonably foresee that the material will end up on the plaintiff’s property. Sugarcane farmers participating in the Louisiana Smoke Management Program complete a detailed packet to determine the wind direction, how far ash and smoke will travel, and what residential or other properties are located around their fields. Therefore, it is arguable that they can more than reasonably foresee that their ash and smoke will end up on plaintiffs’ properties when they choose to burn the fields.

Courts do not always easily determine the intent element of trespass. In Dual Drilling Co. v. Mills Equipment Investments, the Louisiana Supreme Court analyzed a claim for conversion of a rig, in which a company was contracted to cut pieces of the rig but cut the wrong piece. The piece that was cut did not belong to the person employing the contractor. Additionally, the contractor cutting the rig was warned that the piece he was about to cut did not belong to the person who employed him, yet he cut it anyway. The court determined that the contractor cutting the rig was liable for damages resulting from conversion of the property. The specific rule the court used was that the company “knew or should have known” that the rig belonged to someone else but failed to confirm the identification of the true owner.

Similarly, in MCI Communications Services v. Hagan, plaintiffs asserted that the defendant should be held liable for trespass to chattel even when the trespass is inadvertent and unintentional, but the Louisiana

200. Borland holds that engaging in an act that will reasonably result in particulate matter being transmitted onto the property of another is enough to constitute a trespass. Borland v. Sanders Lead Co., 369 So. 2d 523, 528 (Ala. 1979).


203. Dual Drilling Co. v. Mills Equip. Invs., 721 So. 2d 853 (La. 1998); Conversion is a tort claim in which an owner of a movable, also called chattel, is dispossessed of the movable by way of an unlawful interference with the object and ownership. Id. at 857.

204. Id. at 855.

205. Id. at 857.

206. Id. at 858.

207. Id. at 857.
Supreme Court held that this contention was incorrect. In this case, a defendant owned a piece of property that had an underground cable belonging to MCI running across it, yet MCI did not have a servitude on the property. Defendants used a backhoe on the property and accidentally struck the cable, severing the cable in the process. The court in this case determined that, in order to commit a trespass to chattel, intent to interfere with another person’s interest in the movable property is required. Because defendants had no knowledge of the underground cable and did not intentionally sever the cable, there could be no trespass claim.

In both *Dual Drilling* and *MCI*, the Louisiana Supreme Court rejected the idea of placing liability on an actor who did not have intent to cause an interference with another’s property. Essentially, the court rejected strict liability; the Louisiana Supreme Court prefers that actors know or should know that their actions will result in harm to others. Sugarcane farmers and their burns satisfy the intent requirements set forth in *Dual Drilling* and *MCI*. Farmers are aware of the residential areas, highways, airports, schools, or other such sites that surround their fields. Even if they do not participate in the *Louisiana Smoke Management Guidelines*, they have knowledge that the wind is blowing in some respect during their burn and that this wind will cause the smoke and ash to travel. Having knowledge that smoke and ash has the potential to travel lends to the effect that farmers “know or should know” that the smoke and ash will travel onto surrounding residential properties, and therefore, farmers should take proactive measures to determine who will be affected and take precautions to protect these areas. Failure to take these measures should result in the requisite intent necessary to support a claim in trespass.

209. *Id.* at 1149–51.
210. *Id.* at 1149.
211. *Id.* at 1154 (citing RESTATEMENT (SECOND) OF TORTS § 217 (AM. LAW INST. 1965)).
212. *Id.* at 1155.
213. Dual Drilling Co. v. Mills Equip. Invs., 721 So. 2d 853, 857 (La. 1998); MCI Commc’ns. Servs., 74 So. 3d at 1155.
214. Strict liability is defined as “liability that does not depend on proof of negligence or intent to do harm but that is based instead on a duty to compensate the harms proximately caused by the activity or behavior subject to the liability rule.” Strict liability, BLACK’S LAW DICTIONARY (10th ed. 2014).
C. Modifications in the Sugarcane Industry

Louisiana has some of the most relaxed and lenient guidelines when it comes to regulation of sugarcane burning and the sugarcane industry. In order to protect both farmers from suits and residents from unnecessary smoke and ash intrusion, the regulation of the state’s sugarcane industry needs to undergo a reformation that will hold farmers liable for extensive damage to surrounding landowners resulting from their burns.

1. More Stringent Regulations of Burning Practices

Louisiana’s policymakers and the Louisiana Department of Agriculture should work to enforce stricter guidelines in the area of ash and smoke management by way of mandatory implantation or strong incentives for farmers to partake in management techniques. While the Louisiana Smoke Management Guidelines for Sugarcane Harvesting is a helpful tool, it must be made mandatory for all sugarcane farmers in the state to ensure uniform burning techniques and adequate protection to surrounding areas. Sugarcane economy states, including Louisiana, also need to impose harsher liabilities on sugarcane farmers so that farmers take greater care to follow burn procedures precisely. Since the Louisiana Right to Farm Act only holds sugarcane farmers liable if plaintiffs can rebut the presumption of non-negligence, farmers are not forced to seriously evaluate every step of their burns because the chances of them actually being found responsible for harm are low. If farmers were liable for trespass due to ash and smoke residue, they would likely take more careful measures with their prescribed burns and more farmers would voluntarily follow the Louisiana Smoke Management Guidelines for Sugarcane Harvesting.

By refusing to adhere to the Guidelines, sugarcane farmers are essentially acknowledging that there are steps that would limit the harm their processes cause to surrounding areas, residential properties, and residents themselves, yet they are unwilling to take the extra time necessary to fully protect their neighbors. Trespasses may still occur even with careful evaluation of burning conditions, but these trespasses will be considerably less if wind speeds, wind directions, and surrounding areas are consistently considered before burning is commenced.

Louisiana lawmakers and agricultural experts may be concerned that stricter guidelines for sugarcane burning would deter farmers from engaging in the industry. Being the second largest producer of sugarcane,

Louisiana’s economy relies heavily on the crop.\textsuperscript{216} This concern is without merit. Other states where sugarcane is a staple crop do have mandatory smoke and ash mitigation guidelines that sugarcane farmers are required to follow,\textsuperscript{217} and these states still produce a high volume of sugarcane each year.\textsuperscript{218} The \textit{Louisiana Smoke Management Guidelines} should be modeled after the other sugarcane states in the country, and Louisiana regulators should follow the lead in making the mitigation guidelines mandatory and enforceable.

\textbf{2. Reformation of the Right to Farm Act}

Along with the transformation and reformation of trespass laws, the Louisiana Right to Farm Act\textsuperscript{219} must be changed in order to revoke the immunity granted to sugarcane farmers. Since negligence is not a sufficient remedy for plaintiffs affected by sugarcane residue, holding farmers liable under a theory of negligence alone is unfair. The Act can be reformed in a few ways. Ideally, the Right to Farm Act should allow plaintiffs to bring claims against sugarcane farmers under the theories of negligence, trespass, or nuisance, depending on which theory best fits the harm they have suffered. This rework of the Act is more necessary if the \textit{Louisiana Smoke Management Guidelines} remain voluntary for farmers, rather than become mandatory.

Alternatively, if the \textit{Guidelines} are made mandatory, the Right to Farm Act could remain in its current state. Negligence would be an acceptable and successful claim because the farmers would have a standard of care that they are required to follow. As long as the \textit{Smoke Management Guidelines} are voluntary, the standard of care necessary for a negligence claim is arbitrary and rebuttable. Therefore, unless the \textit{Guidelines} become mandatory, the partial immunity granted to sugarcane farmers under the Right to Farm Act must be repealed, and the Act must allow for other areas of recovery for plaintiffs.

\begin{itemize}
\item \textsuperscript{216} Fletcher, \textit{supra} note 40, at 2.
\item \textsuperscript{217} Florida, Texas, and Hawaii are all major producers of sugarcane. Each state has a set of guidelines that works to mitigate smoke and ash production and spread, and farmers’ compliance with these guidelines are mandatory and enforced in each of these three states. \textit{Id.} at 23–24.
\item \textsuperscript{218} Florida harvests an average of 433,000 acres of sugarcane annually, while Texas harvests approximately 42,000 acres of sugarcane a year. In comparison, Louisiana harvests around 358,000 acres of sugarcane annually. \textit{Id.} at 23–24.
\item \textsuperscript{219} \textit{LA. REV. STAT.} § 3:17(E) (2019).
\end{itemize}
CONCLUSION

Unless and until a newer and better method evolves, sugarcane burning will continue to be an essential part of the industry; however, the processes causes problems for neighboring property owners as the ash and smoke from the burning sugarcane trash drift in the wind and invade their lands. Louisiana currently protects sugarcane farmers from liability unless they are proven to be negligent in their burning techniques, but this stringent standard deprives plaintiff landowners of relief when their property is intruded upon by the byproduct of the burning. Courts are split on the issue of allowing particulate matter invasions as a claim under the theory of trespass, so plaintiffs are often limited to bringing claims of nuisance.

Smoke and ash are vastly different from the light, sound, and vibrations that make up other nuisance claims. The residue from sugarcane burning is easily sensed and measured and often settles on neighboring property, interfering with a person’s possessory interest. Sugarcane farmers must be required to take better precautions in protecting their neighbors. While Louisiana has imposed some guidelines for farmers, smoke regulations in the state are voluntary, and farmers often opt out based on ease and prior experience with burning. Until these regulations become mandatory or farmers are held liable for damages done to neighbors based solely on the result of their burnings, problems with smoke, ash, and particulate matter trespass will arise time and again.

Courts, at least within each particular state, need to uniformly decide particulate matter trespass claims, rather than ambiguously relying on each’s own definition of intangible material. Further, both Louisiana courts and the Louisiana legislature should work to ensure that sugarcane farmers are taking all possible steps to reduce smoke and ash residue, in order to provide greater protection to residents living around the fields that bring so much sweetness to the state.