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ANIMAL AND PLANT HEALTH QUARANTINES AND TAKINGS

Animal and plant diseases are a continuing concern, not only because of the economic impact in particular commodity sectors, but because of the potential ability in some cases to impact human health, and in many cases, to impact the nation's economic health.[1] Animal diseases like bovine spongiform encephalopathy (BSE or "Mad Cow"),[2] avian influenza,[3] monkeypox,[4] or plant diseases and infestations like citrus canker,[5] the Emerald Ash Borer,[6] or Ralstonia[7] pose threats beyond the American farming sector, and as a result, both federal and state agencies must act to prevent the importation[8] and spread of these pests and diseases. However, government's ability to act is not unfettered; the Fifth Amendment's[9] takings provision must factor into decision making when government takes or destroys private property to prevent the spread of disease or infestations. Nearly 100 years ago, the Supreme Court upheld a state's efforts to care for the public health and welfare by requiring vaccinations of its citizens,[10] and over 75 years ago, the Supreme Court found a state within its rights to require the destruction of host material that contributed to a disease impacting crops, without providing for compensation for losses.[11] Though these cases seemed to provide fairly clear guidance of the police power to abate nuisances and combat animal and plant diseases without rising to the level of a taking, there have been some cases and instances where the opposite held true. In some cases, using statutes speaking to compensation, both legislatures and courts

have placed requirements for compensation into disease programs. This paper will look at an array of cases where the state's powers to combat plant and animal diseases have been challenged, and will attempt to look at the impact that private property rights and takings jurisprudence may play in the new era where these kinds of diseases are not only a threat to the public or economic health, but also a component of national security.

Miller v. Schoene, the Supreme Court's say on the matter

Cedar rust is a fungal disease of plants that requires two hosts: a member of the cypress family and a member of the rose family, which includes apple trees.[12] Cedar apple rust alternates its life cycle between cedar trees and apple trees, causing unsightly but not lethal galls to form on the cedars, but causing leaf drop, fruit infection, and markings that can make a commercial apple crop unmarketable.[13] The fungal spores can travel hundreds of yards on the wind, meaning that when the two host plants are near enough to each other and the fungus is present, treatment must be undertaken to keep the disease under control.[14] Current recommended control options include the use of fungicides, the use of genetically resistant plant stock, and the removal of one of the two required host species.[15]

Cedar rust has been an important economic disease of apples for many years. In 1914, the State of Virginia passed the Cedar Rust Act[16] to help combat cedar rust and the impact it had on the state's apple crop.[17] The Act stated

> It shall hereafter be unlawful within this State for any person, firm or corporation to own, plant or keep alive and standing upon his or its premises, any red cedar tree, or trees (which are or may be) the source, harbor or host plant for the communicable plant disease commonly known as 'orange' or 'cedar rust' of the apple, and any such cedar trees, when growing within a radius of one mile of any apple orchard in this State, are hereby declared a public nuisance and shall be destroyed as hereinafter provided, and it shall be the duty of the owner or owners of any such cedar

> trees to destroy the same as soon as they are directed to do so by the State entomologist, as hereinafter provided.[18]

The act further required the state entomologist to make an inspection for the disease upon the request of land owners, to determine the presence and threat of the disease within two miles of an apple orchard, and if found, to notify the landowner of the requirement to destroy the infected host cedar trees.[19] If the owner of the cedar trees did not destroy the cedar trees, the act authorized the state entomologist to do so.[20] The Act did not provide for state compensation for the destroyed trees, or for the loss in property value caused by the destruction.[21]

The Virginia Cedar Rust Act was put to the test not long after its adoption. Miller and other plaintiffs found their ornamental cedar trees declared to be nuisances under the provisions of the Act, and sought to prevent the state entomologist from removing their trees, which were infected with cedar rust.[22] The county circuit court upheld the state entomologist's order but allowed the plaintiffs $100 for their expenses in removing the infected trees, and the Virginia Supreme Court of Appeals affirmed the decision.[23] The plaintiffs appealed to the United States Supreme Court, claiming a taking under the due process clause, and the Court heard and decided the case in 1928.[24]

The Court, after a review of the nature of the disease, noted that the red cedar was grown ornamentally, minimally for lumber uses, and that its value was "small as compared with that of the apple orchards of the state"[25] and further that Virginia was "under the necessity of making a choice between the preservation of one class of property and that of the other wherever both existed in dangerous proximity."[26] The Court went on to say that "[w]hen forced to such a choice the state does not exceed its constitutional powers by deciding upon the destruction of one class of property in order to save another which, in

the judgment of the legislature, is of greater value to the public."[27] The Court also determined that neither the Constitution nor the Virginia law required compensation for the trees, or for the diminution in value of the plaintiffs property.[28] Further, that the statute did not violate the equal protection clause because it vested the decision making power in the state entomologist and not the surrounding landowners, and the act also contemplated sufficient hearings and appeals.[29]

Miller v. Schoene, considered over time

Miller v. Schoene has not been overruled since its issuance in 1928, and has become in the Supreme Court's own words, part of "a long line of this Court's cases sustaining against Due Process and Takings Clause challenges the State's use of its 'police powers' to enjoin a property owner from activities akin to public nuisances."[30] *Miller* has been examined and cited in a number of well-known cases where the Supreme Court has looked at the issues surrounding private property, police power, and takings. In *Lucas v. South Carolina Coastal Council*,[31] Justice Scalia acknowledged *Miller* and the proposition that a public nuisance abatement need not necessarily require compensation while also noting that under the Court's current understanding, "the legislature's recitation of a noxious-use justification cannot be the basis for departing from our categorical rule that total regulatory takings must be compensated."[32] However, there is a key distinction between *Miller* and *Lucas*, that being noxious use or nuisance. In Lucas, the State of South Carolina passed a law and sought to prevent the owner of beachfront property from constructing residential dwellings on it, severely limiting the value of the property.[33] Justice Scalia wrote,

> A law or decree with such an effect must, in other words, do no more than duplicate the result that could have been achieved in the courts--by

> adjacent landowners (or other uniquely affected persons) under the State's law of private nuisance, or by the State under its complementary power to abate nuisances that affect the public generally, or otherwise.[34]

Justice Scalia went on to note that the historical analysis using "harmful or noxious use" had evolved into a more modern theory that "land-use regulation does not effect a taking if it 'substantially advance[s] legitimate state interests'...."[35]

The deprivation of the use of Lucas' property by the state of South Carolina was under the state's statute that included a legislative finding "[I]t is in both the public and private interests to protect the [beach/dune] system from this unwise development."[36] The legislative findings of the risk of damage to private and public property, and the risk of danger to the environment were not alone sufficient to justify a taking without compensation, especially in an instance such as this, where a total taking had occurred, meaning the landowner had been deprived of most uses of the property.[37] To avoid having to pay compensation, the state would have to demonstrate that it was using common law on nuisance to prevent the owner from using his property, because a "State, by *ipse dixit,* may not transform private property into public property without compensation...."[38]

Justice Blackmun in his dissent in *Lucas* cited *Miller v. Schoene* approvingly, quoting from it that "preferment of (the public interest) over the property interest of the individual, to the extent even of its destruction, is one of the distinguishing characteristics of every exercise of the police power which affects property."[39]

The Court also referenced *Miller* in *Keystone Bituminous Coal Association v. DeBenedictis*,[40] where the State of Pennsylvania had passed a law requiring that mining companies to leave fifty percent of the coal in the ground helping ensure the stability of

the structures on the surface. Though the Court was narrowly divided, both the opinion by Justice Stevens and the dissent by Chief Justice Rehnquist mentioned *Miller* as a guide. The majority opinion noted that in *Miller* "it was clear that the State's exercise of its police power to prevent the impending danger was justified, and did not require compensation."[41] While the dissent did not agree with the majority's premise in the case that the Pennsylvania regulation was not a taking because "the character of the governmental action involved here leans heavily against finding a taking"[42] and the act "neither makes it impossible for petitioners to profitably engage in their business, nor involves undue interference with [petitioners'] investment-backed expectations"[43] the dissent did reference *Miller* and distinguish it as a different standard, because it did not involve the complete destruction of the cedar trees; the individual affected was able to use the trees.[44] A key distinction for the dissent in *Keystone* seemed to be the loss of all use of the property. Chief Justice Rehnquist wrote:

> [O]ur cases have never applied the nuisance exception to allow complete extinction of the value of a parcel of property. Though nuisance regulations have been sustained despite a substantial reduction in value, we have not accepted the proposition that the State may completely extinguish a property interest or prohibit all use without providing compensation.[45]

Another key case in the area of takings analysis, *Penn Central Transportation Co. v New York City*,[46] used *Miller* to illustrate that "a use restriction on real property may constitute a "taking" if not reasonably necessary to the effectuation of a substantial public purpose."[47] The Court found that New York's zoning restrictions preventing construction in the airspace over the historic Grand Central Terminal were not a taking, because "while the challenged government action caused economic harm, it did not interfere with interests that were sufficiently bound up with the reasonable expectations of the claimant

to constitute "property" for Fifth Amendment purposes."[48] States may impose restrictions through zoning on uses of land for the public's quality of life and even aesthetics,[49] and these zoning regulations that are "reasonably related to the promotion of the general welfare, uniformly reject the proposition that diminution in property value, standing alone, can establish a 'taking.'"[50]

While the dissent in *Penn Central* disagreed with the majority's recognition of the City's designations as legitimate zoning because the City's landmark designations applied to individual buildings and not to particular areas, [51] and therefore imposed greater costs on select individuals than on a class of property, even requiring the property owners to expend money as a result of this designation as a public good,[52] the Court differentiated *Penn Central* from earlier cases such as *Miller*, because *Miller* "involved noxious uses of property."[53] Using *Miller* as a reference, the dissent argued that "[t]he nuisance exception to the taking guarantee is not coterminous with the police power itself. The question is whether the forbidden use is dangerous to the safety, health, or welfare of others."[54] In the *Penn Central* case, the city was not seeking to prohibit or control a nuisance. It was seeking to preserve historic architecture, not by prohibiting some noxious or dangerous use, but instead by requiring affirmative duties through a form of eminent domain.[55] Both the majority and the dissent recognized the ability of the state to abate noxious conditions or nuisances without being subjected to constitutional takings analysis.

The Supreme Court has used *Miller* in other instances to support reasonable government regulation. In a case involving claims to mining rights that were extinguished due to late filing claims, the Court cited *Miller* for the proposition that

"[r]egulation of property rights does not "take" private property when an individual's reasonable, investment-backed expectations can continue to be realized as long as he complies with reasonable regulatory restrictions the legislature has imposed."[56] In a case claiming that a state law where mineral rights lapsed back to the state after a period of non-use was in effect a taking,[57] the Court found that the overall benefit to the state far exceeded the minimal burden placed on the landowner, citing approvingly a portion of *Miller*:

> It will not do to say that the case is merely one of a conflict of two private interests and that the misfortune of apple growers may not be shifted to cedar owners by ordering the destruction of their property; for it is obvious that there may be, and that here there is, a preponderant public concern in the preservation of the one interest over the other.[58]

Miller has been used to uphold classification distinctions made in the federal tax code "where the distinction between the class appropriately subject to classification and that not chosen for regulation is one of degree"[59] and even in a discussion about compelling public interest in case involving the trial of a juvenile.[60] In a railroad crossing case, the Court, citing *Miller*, noted "when particular individuals are singled out to bear the cost of advancing the public convenience, that imposition must bear some reasonable relation to the evils to be eradicated or the advantages to be secured."[61] Furthermore, a state "may prohibit the possession within its borders of the special instruments of violation, regardless of the time of acquisition or the protestations of lawful intentions on the part of a particular possessor"[62] if it leads to the proper enforcement of its laws.

Miller and its applications to other plants and animals

Maryland Ferrets

Miller was used in a 1996 Maryland case where a ferret had bitten a child.[63] State regulations required the euthanasia of the ferret for rabies testing after a bite, and the

Maryland Court of Appeals upheld the state's police power to destroy the ferret as within the state's authority to protect the public health.[64] The owners of the animal sought to have the destruction of the ferret declared a taking under the Fifth Amendment. In this case, both the trial and the appeals courts found that the destruction of the ferret was a taking, albeit a legitimate one under the state's police power.[65] The court then attempted to determine if the taking was compensable, and using *Lucas* to analyze whether the entire value of the property had been destroyed by government action,[66] the court found that

> We are convinced, therefore, that in a case such as this where the entire bundle of property rights has been destroyed, the Fifth Amendment requires compensation for the taking unless, as stated above, the government regulation does no more than prohibit or abate a public nuisance for which the property owner did not possess the right to use his property in the first place.[67]

Therefore, even though the court found that the destruction of the ferret was a taking because it destroyed all value in the property, the state acted within its power because "a biting, wild animal represents a public nuisance due to the mere risk of infection it represents to humans. Without question, appellants are entitled to have a pet ferret. They are not, however, entitled to keep a ferret that represents a possible health risk."[68] Since the destruction of the ferret was necessary because of the nature of the test for rabies, it "merely denied appellants the right to use their property in an already prohibited manner, there was no compensable taking."[69]

California Peaches and Bees

Two older California Supreme Court cases are also illustrative of the balance between nuisance and takings. In a 1939 case, *Skinner v. Coy*, the county agricultural commissioner attempted to enter onto property to uproot and destroy a number of peach

trees infected with a disease cause peach mosaic.[70] The disease harmed the trees, made the fruit unmarketable, spread easily, and could not be controlled by pesticides; burning of infected plant material was the recommended method of treatment.[71] The Court upheld the power to destroy the trees, and rejected a claim that before destruction, each infected tree must be individually identified.[72] Instead, "description of the premises as infected, with a specification of the existence of the infection in trees thereon is, in general, enough, without an attempt in the notice to designate every particular tree or plant in which the infection exists."[73] The California Supreme Court also found a state law requiring the inspection of apiaries or beehives and the destruction of infected apiaries to prevent the spread of bee diseases to be within the regulatory power of the state.[74] The court rejected a claim that since the disease was not harmful to humans and only to bees, that the statute was invalid and also ruled that the state rationally found benefits to both the economy and the bee industry in maintaining healthy apiaries and eradicating disease.[75]

Florida cattle

The Supreme Court of Florida found that the state was within its bounds to enter onto farms to inspect, test, and destroy cattle infected with Bang's disease.[76] Bang's disease, also known as brucellosis or undulant fever, is a disease known to cause abortions in cattle, and the disease can cause a number of maladies in humans.[77] The disease was and is one of the most serious in cattle in the United States, and the economic consequences as well as the impact on the human population made the disease a target for national eradication beginning in 1934.[78] Florida's eradication program authorized the destruction of infected cattle to prevent the spread of the disease and offered

compensation as an inducement for cooperation with the program.[79] However the court did not find that inducement compensation was required:

> Statutes authorizing destruction of property under such circumstances have usually provided compensation to the owner but on the theory of benevolence or that the community should help bear the loss and not in response to the doctrine of due process. Whether they provide compensation or not, they have been upheld.[80]

The court went even further to conclude that summary destruction of diseased animals, without a due process hearing, might be necessary when "[I]n case of danger from epidemics among domestic animals from Bang's or other communicable diseases, it may be necessary to provide for summary abatement or destruction of diseased animals."[81] Thirty years later, the issue was still being litigated, and the Florida Supreme Court again looked at brucellosis. The eradication efforts for brucellosis/Bang's disease were still underway, and a cattle farmer refused to comply with the state agriculture commissioner's order to test his herd.[82] The trial court ruled for the farmer, finding that the disease did not present an emergency because numbers of infected animals had not been increasing, and that the disease control program was not designed to protect the health or safety of the community and was instead an administrative program.[83] Further, the trial court found that the test for the disease which resulted in a percentage of false positives, the process thereafter that required reactor animals be sent to slaughter within 15 days, and the compensation program were all unconstitutional.[84] The Florida Supreme Court found that the lower court's reliance on previous cases involving the slow spread of a citrus plant disease were misplaced, and reversed the lower court.[85] The Supreme Court, noting their decision thirty years prior and the findings of an ongoing threat to human health, also distinguished between plant and animal diseases.

> Ordinarily, diseases affecting the health of persons or domestic animals are considered in law to be more malefic than diseases infesting or infecting plant life, and do not necessarily require a showing of their emergent or epidemic effects as a predicate compelling public interest for their summary eradication and control.[86]

The court found the program continued to meet the rational basis test, and deferred to the fact finding role of the legislature, who "has found that brucellosis disease in domestic animals represents a dangerous subject of 'compelling public interest' sufficient to justify making an exception to the fundamental rule of due process or just compensation."[87] The court dismissed any idea that an emergency or epidemic must be rampant before a state may use summary proceedings to eradicate infectious or contagious diseases under its inherent police powers, and found the testing and eradication program, along with its compensation program, to be valid acts to protect the public.[88]

Texas Cattle and Ticks

In 1929, Texas' Livestock Tick Eradication Act became effective.[89] Tick Fever is caused by protozoa carried by ticks,[90] and infected animals suffer from severe anemia as the protozoa attack the spleen and red corpuscles.[91] Because this infection can result in up to 90% mortality, eradication of the tick became a priority,[92] and with great effort the tick was eradicated from Texas. However, Mexico still has a tick population, so the border counties remain under surveillance and treatment requirements that include regular treatment or "dips" with an acaracide to kill the ticks, or a vacating of the premises for the nine months of the tick's life cycle.[93] Texas law still requires owners of impacted livestock to dip, or run their animals through a tick-killing bath, or face prosecution.[94]

Shortly after the 1929 Act, a rancher sued the Texas Livestock Sanitary Commission, arguing that the law was "arbitrary, unreasonable, and violative of the

Constitutions of the state of Texas and of the United States"[95] and that further, his cattle had acquired a certain level of immunity to the disease, so that treatment would make his cattle regain susceptibility.[96] The rancher argued that the required expense of dipping, in addition to the potential loss of his animals' immunity, would be a taking of his property without compensation.[97] He also challenged the entire regulatory program as arbitrary, discriminatory, indefinite in its application, and without scientific basis.[98]

The Texas court found that there was sufficient scientific basis for the treatment program, that the plaintiff's cattle were infected and posed a risk to other cattle, and that the expense to livestock owners for treatment was slight, compared to the costs to the state's industry as a whole.[99] The court went on to find that the state legislature had clear authority under its police power to control and eliminate disease, including the forcible dipping of cattle, because "no question can now be raised as to that power anywhere, and especially not in Texas, where the Constitution itself provides for such power in the provision for the protection of livestock."[100] The court differentiated this state action from *Miller* because there was no destruction of property, [101] and further said that if the action was an isolated incident and resulted in a loss of tolerance for the disease, the owner might have a takings claim, but because his cattle were a "constant and active menace" to others, [102] he did not have a claim because

> [N]o vested right can be enjoyed in this state to maintain cattle hosts as carriers of disease, merely upon the ground that the hosts have themselves acquired a tolerance for the disease which they nurture, maintain, and act as a carrier for in its full menace and vigor just as much as if the hosts themselves were subject to the disease, for in a settled community it is the menace to others which the law prohibits, and no person can claim vested rights for himself in a condition which can exist only at the risk and expense of his neighbors. It appears then to me that the Legislature, having full power to do so, has undertaken by a comprehensive scheme, a valid and constitutional purpose, to wit, to eradicate this fever-carrying

> tick from the cattle of this state, and that all the provisions of the act are designed and measured to that end.[103]

Minnesota Swine and Pseudorabies

In an effort to eradicate the disease pseudorabies from swine and to comply with the federal pseudorabies program,[104] the Minnesota Board of Animal Health established a quarantine program for the disease.[105] Pseudorabies is a virus that kills piglets; older swine become carriers for life meaning that eradication requires destruction of the animals.[106] Minnesota's regulations[107] prevented the movement of hogs from an infected herd to any destination other than slaughter, and this requirement caused disproportionate harm on hog farmers who raised breeding stock compared to those who raised hogs for slaughter, because of the higher relative value of breeding stock.[108] An impacted farmer sued the state in Federal Court, claiming that the Minnesota regulations were "ineffective, discriminating, and non- protective" and "that the rules unconstitutionally take private property."[109] The court had little difficulty in analyzing the plaintiff's claims that the quarantine of infected premises was beyond the state's powers: "Unquestionably, the inherent police power of a state allows a state to establish quarantines to control disease in animals."[110] The court and the Animal Health Board acknowledged the disproportionate impact on some producers, but the Court, citing *City of New Orleans v. Dukes*[111] and *Minnesota v. Clover Leaf Creamery Co.*,[112] noted that classifications rationally related to a legitimate state interest are not violative of the equal protection clause.[113] The court also cited *Miller*, finding that "[h]ere, the Board is not ordering the outright destruction of hogs, but *Miller* indicates that a state could do so without committing a taking."[114] Finally, the court noted that even if the Minnesota regulations

were not perfect, "[t]he fact that a regulation is not the best possible regulation, or that the regulation leaves much room for improvement are not justifications for a court invalidating the regulation."[115]

Miller and Bird Flu—alternate analysis and results

Avian Influenza is a disease that exists in multiple different strains and pathological levels. It is found around the world, is endemic in wild bird populations, and can easily spread into domestic bird populations, like chickens.[116] Most strains of the disease are classified as low pathogenic and while they cause relatively little severe damage in poultry, for producers, the economic impacts of even the low pathogenic strains can be significant due to quarantines and import bans from other countries.[117] However, high pathogenic variants exist, and the low pathogenic forms can mutate into higher and more dangerous forms.[118] Highly pathogenic forms can strike without warning, spread quickly, and result in high mortality to domestic poultry.[119] There are economic costs to the disease as well; USDA estimated that the highly pathogenic form of avian influenza that occurred in the Northeastern United States in 1983 and 1984 cost $65 million to eradicate and resulted in the destruction of 17 million birds.[120] The highly pathogenic strain can be spread directly from bird to bird, or from bird through any contaminated source, including feed, cages, and people, and the virus can apparently live indefinitely in frozen manure, so disinfection of material is key to eradication during an outbreak.[121] Both animal health officials and poultry producers express concern that the disease gets into domestic poultry populations through the contact between wild infected birds and the small producers of live birds destined for direct marketing, particularly in urban centers.[122] The interaction in these live bird markets provides opportunity for

spread of the disease, and despite state precautions, both New York and New Jersey have reported regular incidents of avian influenza in the live bird markets.[123]

An even more troubling concern with Avian Influenza occurred in 1997, when for the first time the disease was recorded as infecting humans, in Hong Kong.[124] Since then, there have been several other human outbreaks of avian influenza, resulting in a number of deaths, particularly in Asia, from virulent strains, and health officials fear a new highly virulent strain could emerge and spread rapidly throughout the world's human population.[125] The World Health Organization recommends that in order to prevent a pandemic, quick action is necessary to prevent outbreaks of avian influenza in poultry from becoming epidemics and possibly mutating into forms that could infect humans.[126] Highly pathogenic strains of avian influenza have appeared again in Southeast Asia in late 2003-early 2004, causing human deaths.[127] Low pathogenic forms of avian influenza have appeared in the United States in Delaware, Maryland, Pennsylvania, and a high pathogenic form in Texas since the beginning of 2004.[128] In April of 2004, Canadian officials ordered the destruction of 19 million chickens, ducks, geese, and other poultry in British Columbia after province-ordered quarantines proved ineffective to prevent the spread, and the disease had spread to 18 farms and sickened two people.[129]

Detection of avian influenza mobilizes both federal and state animal health officials: quarantines are issued to curtail movement of birds or potentially infected equipment; flocks are depopulated and premises disinfected; epidemiological investigations are begun to determine where the infection came from and where it might have spread to; surveillance and testing programs are established; and outreach and education campaigns are launched.[130] Within five days of the outbreak in Maryland on

March 5, 2004, over 300,000 chickens had been destroyed.[131] The strains of the disease in the eastern United States have been identified as low pathogenic and the strain in Texas as high pathogenic, but all strains differ from the high pathogenic Asian strain.[132] When a serious disease like avian influenza appears, threatening not only the economic health of the poultry industry but also the public health, government is called upon to act to prevent the spread and eradicate the disease through its use of the police power to impose quarantines and order destruction and decontamination of infected property. General tax dollars support the salaries and expenses of the veterinarians who are mobilized for these efforts, but who bears the cost for the chickens ordered destroyed? A number of cases from the 1983-84 outbreak show how the courts decided.

In *Empire Kosher Poultry, Inc. v. Hallowell*,[133] a poultry processor appealed from summary judgment in favor of the USDA and Pennsylvania Department of Agriculture officials who had instituted a quarantine to prevent the spread of avian influenza. A mild strain had been detected in Pennsylvania, and state and federal animal health officials began an eradication program, which became even more involved after the detection of a highly pathogenic strain.[134] The court noted that "an eradication program was necessary to protect the poultry industry, valued at ten billion dollars with exports of one-half billion dollars per year, and to protect the best low-cost source of protein for the public"[135] and that due to the nature of the disease, a negative test on one day did not necessarily mean a clean bill of health the next. The USDA revised its regulations and quarantine restrictions a number of times as the disease spread and the eradication efforts evolved, and it greatly restricted movement of live poultry within a several county area, since there could be little assurance that healthy appearing birds did not in fact carry the

disease.[136] Empire, a processor of kosher poultry products, brought suit when it was denied permission to move its healthy birds to a slaughter plant outside of the quarantine area.[137] Shortly thereafter, an Empire owned flock in the quarantine area was diagnosed with avian influenza, and most of these birds were then destroyed pursuant to federal regulations,[138] that provided for compensation. The federal regulation[139] provided for a "claim for payment for destruction of poultry, carcasses or parts thereof, eggs, products, or articles" and Empire received compensation for the destroyed chickens. In addition to that claim, Empire sought reimbursement for its losses incurred during the quarantine, since it could not move its healthy birds to slaughter and was forced to purchase birds from other areas to fulfill its contractual obligations.[140] USDA denied the claim because losses were not provided for in its regulations, other than those losses of poultry due to actual exposure or infection.[141] Empire asserted that the quarantine that prevented it from moving its live chickens to processing was a taking that deprived it of property without compensation and without due process of law, and that further, that USDA's compensation provisions denied Empire equal protection of the law because it treated some poultry owners differently than others.[142] The district court granted summary judgment and Empire appealed.

In addressing the substantive due process claim, the Third Circuit, citing *Williamson v. Lee Optical*,[143] noted that the law or regulation need only identify an evil and a rational way to go about correcting it, and need not be perfectly or completely logical in its implementation. The court rejected Empire's claims that the quarantine, its geographic boundaries, and the movement restrictions were arbitrary or capricious, instead finding that the authorities' actions were rational; therefore there was no violation

of Empire's substantive due process rights.[144] Empire's argument that it was denied equal protection because the federal quarantine treated all birds in the quarantined zone, whether infected or healthy, similarly for the purposes of movement but only provided payment to some, was also dismissed by the court. The court found that it was rational for the regulation to treat the two classes of property owners—those with infected and destroyed poultry, and those with healthy and non-destroyed poultry—differently.[145] The court found a rational relationship between the classification and the government interest because

> The indemnity regulation was promulgated to encourage owners of infected or exposed poultry to destroy their birds, thereby reducing the spread of the disease. There was no need to encourage owners of noninfected and nonexposed birds to do likewise. Thus it was rational to indemnify the first group and not the second. Owners of noninfected or nonexposed birds were free to slaughter their birds or sell them to others for slaughter within the quarantined area.[146]

Empire also argued that the federal regulations and action had been a taking of its property without compensation. The Third Circuit looked for reference to the then recently decided *Keystone Bituminous,* where it was "clear that to prevail on a regulatory taking claim, a claimant must establish both that the governmental action falls outside the traditional police power, and that the governmental action sufficiently interferes with investment-based expectations.[147] Recognizing *Keystone's* reaffirmation of *Miller*, the court found that the regulation easily met the first part of the test, as "*Miller v. Schoene* suggests that a government could even require the slaughter of infected poultry without compensation, although in this case it did not do so."[148] The Court went on to find that "[p]lainly, while the regulations at issue here limited Empire's use of its property, they did not deprive Empire of all uses or of all value of the property. Such a quarantine

cannot be considered a taking."[149] The court rejected Empire's second part of the test, that it had a loss of investment based expectations, primarily on the facts of the case because of Empire's own actions, including closing one of its own processing plants in the quarantine area that could have slaughtered the chickens.[150] The Third Circuit upheld the lower court's summary judgment ruling for USDA and the state department of agriculture on the due process, equal protection, and taking claims.[151]

Another case originating from the avian influenza outbreak reached a very different conclusion. The *Yancey v. United States*[152] case involved turkey farmers who were quarantined after avian influenza was traced from Pennsylvania to their county in Virginia.[153] USDA implemented a quarantine of the area that applied to the Yancey farm, prohibiting the movement of live birds, manure, litter, and equipment, and issued compensation regulations "authorizing payment of up to 100% of the expenses of purchase, destruction and disposition of animals and materials required to be destroyed because of being contaminated by or exposed to lethal avian influenza."[154] The Yanceys' flock never tested positive for avian influenza, and during the quarantine, the turkeys reached maturity but they could not be sold for their purpose as breeding stock.[155] With maintenance costs for the healthy flock approaching $1,800 per week, the Yanceys decided it would be uneconomical to wait for the uncertain end of the quarantine, and they sold the turkeys for slaughter at a loss.[156] The Yanceys then filed a claim for indemnity for $63,556, which USDA denied, because the turkeys had been healthy.[157] The Yanceys filed suit, and the Court of Claims found that because the turkeys were healthy and were not ordered to be destroyed by the government, and that the turkeys

were slaughtered for economic, not health reasons, that therefore, the turkeys were not destroyed for purposes of the regulation and no indemnity compensation was required.[158] The Court of Appeals for the Federal Circuit found differently, however. The court read the applicable section of the U.S. Code[159] to cover the situation, in that the "Secretary of Agriculture . . . is authorized to control and eradicate any communicable diseases of livestock or poultry . . . including the payment of claims growing out of the destruction of animals (including poultry)" to mean that any costs linked to any destruction of poultry during the eradication of any disease should be covered by the USDA.[160] The court relied on a case where the USDA paid indemnity for cattle that tested positive for tuberculosis, and then also paid indemnity for the remaining cattle in that herd that had not tested positive for the disease[161] to suggest that even though the Yanceys' flock had not been diseased, it might have been, making the government's refusal to pay indemnity possibly arbitrary and capricious.[162] The court found the government's position of not paying indemnity for healthy animals could lead to "a perverse incentive to allow infection of their flocks in order to receive indemnities" and "contrary to Congress' clear intent to promote cooperation with quarantine provisions."[163] Congress created the indemnity program, the court reasoned, to promote cooperation with the program, but since there was an absence of any evidence that Congress meant for USDA to exclude expending indemnity dollars on healthy animals,[164] the court found that the Yanceys had a valid takings claim under the Fifth Amendment. Acknowledging and quickly distinguishing *Keystone Bituminous* because that case involved a facial challenge to a regulation and not an economic impact analysis,[165] and choosing to ignore *Empire*

because "we find it inconsistent with the intent of the Fifth Amendment"[166] the court never referenced *Miller*. The court summarized the issue with the following statement:

> When adverse economic impact and unanticipated deprivation of an investment backed interest are suffered, as when the poultry quarantine forced the Yanceys to sell their turkey flock, compensation under the Fifth Amendment is appropriate. Even when pursuing the public good, as the USDA was doing when it imposed the poultry quarantine, the Government does not operate in a vacuum. Bluntly stated, the consequences of the Government's action cannot be ignored. Why should the Yanceys be forced to bear their own losses when their turkeys were not diseased? The Yanceys' losses came about because of the Government's action. If the intent of the poultry quarantine was to benefit the public, the public should be responsible for the Yanceys' losses.[167]

From that blanket statement, seemingly contrary to established jurisprudence on the police power to combat infectious and noxious diseases, the court moved on to damages, and acknowledged that the Supreme Court does not allow for lost profits under the Fifth Amendment[168] but then decided that in this case that "the fair market value of property under the Fifth Amendment can include an assessment of the property's capacity to produce future income"[169] and remanded the case for determination of the appropriate amount of compensation.

However, another avian influenza case in the Court of Claims is more in line with the other cases on the takings issue. In *Wright v. United States*,[170] which was primarily a dispute over the amount of compensation offered for the indemnification of diseased poultry and damage done to facilities during the disinfection efforts, did also feature a look at the takings issue, summarizing

> Plaintiffs also asserted an unlawful fifth amendment taking for which just compensation is required. However, when acting under the state police power the destruction of diseased animals requires no compensation. The basic reasoning used by the courts in support of this exercise of police power without compensation is that such diseased animals are obnoxious to the public health. Where public interest is involved, preferment of that

> interest over the property interest of the individual, even to the extent of its destruction, is not unconstitutional. This court agrees with the rationale in *Loftin* that "[t]he diseased animals in this case can reasonably be considered a public nuisance. It follows then that no compensation for the destruction of these animals was required. However, Congress acting under the commerce clause in passing essentially a police regulation saw fit to compensate owners...." Therefore, under the authority of *Miller* and *Loftin* and on the facts of this case, a fifth amendment taking claim does not lie.[171]

Florida and Citrus Canker—a more expensive eradication

One other agricultural issue involving the government's ability to control disease has played a significant role recently in both the courts and the media—citrus canker.[172] Citrus canker is a disease that does not affect humans, but does impact citrus trees, causing leaves and fruit to drop prematurely and leaving remaining fruit with unsightly and unmarketable cankers.[173] The bacteria are carried by wind and rain, spreading quickly; Florida eradicated the disease in the first half of the 20th century, only to find it reemerge in the 1990's.[174] In Florida alone, citrus is valued as a $9 billion industry, employing 100,000 people and significantly contributing to the tourism economy as well.[175] The Florida Department of Agriculture and Consumer Services, recognizing the impact to the state's economy of both the disease and the potential impact of a federal quarantine preventing citrus products from leaving the state if the disease was left unchecked, implemented an eradication program.[176] Initially under the program, the state destroyed all citrus trees within a 125-foot radius of any infected tree.[177] However, the disease continued to spread, and after bringing together a scientific panel to review the program, the state implemented the panel's recommendation to remove all citrus within 1,900 feet of an infected tree.[178] A number of plaintiffs filed suit, challenging the action based on constitutional, administrative, and scientific grounds.[179] There were legislative

changes to the state's acts[180] and numerous lawsuits, rulings, and declaratory judgments, including findings that the state's laws violated the Fourth Amendment's unreasonable searches and seizures provision and the Fifth Amendment's takings provision.[181] The Florida Legislature amended the laws in response to some of the state court's rulings and specifically included a compensation provision:

> The Department of Agriculture and Consumer Services *shall provide compensation* to eligible homeowners whose citrus trees have been removed under a citrus canker eradication program. Funds to pay this compensation may be derived from both state and federal matching sources and shall be specifically appropriated by law. Eligible homeowners shall be compensated subject to the availability of appropriated funds.[182]

In its 2004 decision, the Florida Supreme Court examined the amended Florida statutes and their constitutional challenges, and began by contrasting the state's power under eminent domain and the police power, finding that

> [a]lthough both powers impact on private property, there is a distinction between the power of eminent domain and the police power: [T]he former involves the taking of property because of its need for the public use while the latter involves the regulation of such property to prevent its use thereof in a manner that is detrimental to the public interest.[183]

The Florida Supreme Court found that the program was a valid use of the state's police power and targeted to meet a rational goal, but that under Florida law, when an individual's property is destroyed for the greater good, there must be an indemnity provision, unless the action is undertaken as part of an emergency action.[184] In order to meet the emergency test "in a total destruction of property without compensation, the statute must be justified by the narrowest limits of actual necessity and the threat must be imminently dangerous."[185] Since citrus canker is a plant disease and not an infectious animal or human disease, the court seemed to feel that it would not meet the necessity or

dangerousness tests.[186] Ultimately, the Florida court found that the destruction of healthy trees within the 1,900 foot radius of an infected tree was a valid use of the police power, and that the state's compensation law was required, along with a cap, but not a ceiling to pay for losses.[187] Further, the state was required to get a search warrant for each individual property.[188]

Trees in Texas

A citrus canker cases in another state also proved to be less than clear in exercise of the state police power. In an early Texas case,[189] predating *Miller*, the Texas Supreme Court found that the state's agriculture commissioner did not have the authority to declare a citrus hedge infected with canker to be a public nuisance, because the state legislature had not specifically made the determination that citrus canker was a public nuisance and it lacked the authority to grant that power to the commissioner.[190] Further, in a separation of powers argument, the court found that barring an emergency, the commissioner could not undertake an eradication like this without judicial approval, because otherwise "all property would be at the uncontrolled will of temporary administrative authorities, exercising, not judicial powers, but purely executive powers. The result would be to subject the citizen's property solely to executive authority."[191]

Trees in Kansas and Washington—Back to Miller

This constitutional separation of powers reasoning was not supported however in a similar plant pest statute in Kansas, where the Kansas Supreme Court upheld the legislature's creation of an Entomological Commission and the vesting of it with the authority to declare nuisances and take action to abate them.[192] In that case, the Commission, having found a property infested with San Jose scale, an insect that damages apples, peaches, plums, and pears,[193] took action and the court found the act an

acceptable authorization and delegation of the police power to the executive and the Commission's actions an appropriate action to protect the public.[194] Furthermore, the Kansas court found that compensation was not required if the legislature had not provided for it as part of the disease management program, in part because of the negligible value of infected or infested property.[195] An early Washington state case found the same result; destruction of infested apples in order to protect the industry as a whole did not create a cause for damages since the diseased apples had no value.[196]

A much more recent case from Washington state reviewed both the state's authority to enter property to combat pest infestations and the takings provisions.[197] Citrus longhorned beetles were inadvertently imported into the United States from Korea, and escaped from a nursery.[198] The beetles posed a very significant threat because with no natural predators, officials feared that the population could explode resulting in the destruction of uncountable numbers of trees.[199] After detection of the beetles' escape, state and federal officials formed a science advisory panel, which determined the level of threat to the natural ecosystems and found that because of the insect's biology, the only effective method to eradicate the beetle was to destroy host tree material.[200] The eradication plan called for removal of all potential host trees within 1/8 mile, and insecticide use and surveillance beyond that boundary.[201] Homeowners objected to this plan, and were not mollified by state funding for vouchers to purchase replacement plants, feeling that their fruit and flowering trees, roses, and other plants should be purchased by the state before their removal.[202] The superior court allowed the state to go forward, but found that the destruction was a compensable taking; the state appealed.[203] The Washington Court of Appeals, under the theory of necessity to abate an emergency,

and quoting *Keystone Bituminous*[204] for its provisions on not compensating a property owner when abating a noxious use, [205] found that "[t]he destruction of the ornamental trees in this case is a consequence incidental to a valid regulatory measure, one taken for the purpose of defending against an impending public peril" and analogous to the situation in *Miller v. Schoene*.[206] The plaintiffs attempted to use *Miller* to argue that destruction of healthy trees required compensation, but the court disagreed, noting that the plantiffs "fail to recognize that the statute upheld by the [Supreme] court permitted destruction of healthy trees (any red cedar tree "which is *or may be* " the host plant)."[207] The court also rejected an effort to use Florida cases to show that destruction of healthy trees must be compensated, finding that the fact-specific inquiry in the Florida citrus canker cases was not contrary with *Miller*, and summarized this area of law by saying "[t]rees as yet unaffected by disease may be destroyed without compensation, when evidence in the record shows that their proximity to a source of infestation renders them 'unhealthy' as a matter of law and a source of imminent public danger."[208] The court reversed the judgment for compensation and concluded the destruction of trees was not a compensable taking.[209]

Conclusion

What then is a state or federal animal and plant health official to make of these decisions? Or a lawmaker, for that matter? The impact of a quarantine alone can have a significant economic cost to producers, even if no destruction is ordered and the quarantine is eventually lifted. Most of the cases, stretching back to *Miller*, recognize that in order to prevent the spread of disease and to protect the greater public good, there are times when the property of the individual will be sacrificed. *Miller* still appears to

stand for the proposition that the state may act, "by deciding upon the destruction of one class of property in order to save another which, in the judgment of the legislature, is of greater value to the public."[210] If the legislature chooses to make that judgment, and then, whether as a practical matter to help encourage public cooperation with the effort or as a response to political pressure adopts a compensation or indemnity plan is secondary—a political decision and not required constitutionally. Most courts have relied on traditional nuisance and noxious property theory, and used that analysis to then determine whether there was a taking, compensable or not. Some courts seem to draw a line distinguishing animal diseases that can spread to humans, especially those creating potential public health emergencies, from plant diseases that are primarily economic in their destruction. Diseases that can pass from animals to humans also raise the complicated issue of possible quarantines of infected or even suspected human populations, most recently brought to focus in the tracking of SARS and quarantines imposed on infected people in China and Canada.[211] Fears of possible impact on human health require federal and state animals health officials to act to protect the public health and move quickly as disease outbreaks occur, but the possibility that their actions to prevent the spread of disease might result in a costly takings case could result in an overly cautious approach.

The possibility of an intentional release of an infectious plant or animal disease as part of a bioterrorism event has raised the importance of disease detection and quarantines to even higher levels. The U.S. Departments of Agriculture and Homeland Security have elevated the concept of biosecurity for agricultural producers and have stepped up efforts to inspect products and people entering the United States in order to prevent the intentional, as well as the unintentional importation of pests and diseases.[212] Training of

private practice veterinarians to recognize foreign animal diseases, increasing laboratory detection capabilities, and training for emergency management situations have all been part of the preparedness response,[213] as has been the call for improved coordination among federal and state agencies,[214] and updating of laws to improve responses to outbreaks. In response to the September 11, 2001 attacks, the Center for Law and the Public's Health at Georgetown and Johns Hopkins Universities issued the Model State Emergency Health Powers Act for the CDC to assist the nation's governors and legislatures in updating and reviewing their authorities and abilities to respond to emergencies, especially those caused by bioterrorism or epidemics.[215] The act would vest broad emergency powers in governors, in order to "prevent, detect, manage, and contain emergency health threats"[216] but also attempts to address potential conflicts between emergency management and civil liberties. Regarding takings and compensation, section 805 of the proposed Act provides that "compensation for property shall be made only if private property is lawfully taken or appropriated by a public health authority for its temporary or permanent use during a state of public health emergency declared by the Governor pursuant to this Act."[217] This language, and even more directly, proposed section 506, which reads "[c]ompensation shall not be provided for facilities or materials that are closed, evacuated, decontaminated, or destroyed when there is reasonable cause to believe that they may endanger the public health"[218] would seem to indicate that in a disease outbreak of great enough significance that the Governor of a state declared a state of emergency, then there would be little to chance of compensation for the destruction of animals or plant material, even if the animals or plants turned out to not be infected. The imposition of a quarantine would similarly seem to not provide for any compensation for

economic losses. However, the proposed Act has been resoundingly criticized by a wide spectrum of sources, including civil liberty organizations and private property proponents as a "threat to individual rights"[219] and that it "fails to include basic checks and balances, goes well beyond bioterrorism and lacks privacy protection."[220] Other commentators have argued that these revisions are not necessary because courts have traditionally upheld public health laws where there was a rational relationship between the government's actions and the potential threat, as in *Miller* and its progeny.[221]

With the passing of the initial sense of urgency after the September 11th attacks, it is appropriate for federal and state officials to review their authorities to contain and combat animal and plant diseases, whether occurring naturally or intentionally. This authority should be reviewed in preparation not only for the next disease or emerging pathogen, but also for ongoing animal and plant diseases. When telling the public, especially the citizens whose property is affected, that eradication or treatment efforts are about to take place, officials should expect public and legal challenges not only to their ministerial actions, but to their overarching authority to act. As a result, preparation of supporting documentation including relevant state law as well as federal constitutional background is necessary. Officials should also work with their legislatures to update provisions if necessary, providing clear guidance about the situations where compensation will be required and where it will not.

[1] United States Department of Agriculture, Animal & Plant Health Inspection Service (USDA APHIS), Welcome to USDA APHIS webpage, http://www.aphis.usda.gov/lpa/about/welcome.html
[2] USDA APHIS: Bovine Spongiform Encephalopathy (BSE): http://www.aphis.usda.gov/lpa/issues/bse/bse.html
[3] USDA APHIS, Avian Influenza in the United States: http://www.aphis.usda.gov/lpa/issues/ai_us/ai_us.html
[4] USDA APHIS: Monkeypox. http://www.aphis.usda.gov/lpa/issues/monkeypox/monkeypox.html Monkeypox is a viral disease of animals, first reported in human cases in the United States in 2003, and traced to infected prairie dogs sold as pets. The disease, similar to smallpox, causes rashes, fevers, and can be fatal. More information is available from the CDC: http://www.cdc.gov/ncidod/monkeypox/factsheet2.htm
[5] USDA APHIS: Citrus Canker: http://www.aphis.usda.gov/lpa/issues/ccanker/citruscanker.html
[6] USDA APHIS: Emerald Ash Borer http://www.aphis.usda.gov/ppq/ep/eab/ The Emerald Ash Borer, discovered in Southeast Michigan in 2002, is native to China and its larvae, when present in sufficient numbers, kill ash trees. The insect presents a significant threat to the entire ash population of North America. See also Michigan's webpages on the Emerald Ash Borer: http://www.michigan.gov/mda/0,1607,7-125-1568_2390_18298---,00.html
[7] USDA APHIS: Ralstonia: http://www.aphis.usda.gov/lpa/issues/ralstonia/ralstonia.html Ralstonia is a disease that causes wilt in geraniums but causes great destruction to potatoes, tomatoes, and peppers.
[8] For instance, Hawaii has had an importation requirement since 1912 that imposed a 120-day quarantine on all cats and dogs entering the state as a means to prevent the importation of rabies. This requirement, which also applied to guide dogs, was challenged under the Americans with Disabilities Act in Crowder v. Kitagawa, 81 F.3d 1480, C.A.9 (Hawaii), 1996, where the Ninth Circuit reversed the district court's summary judgment ruling upholding the state's quarantine provisions to determine if the law was a reasonable accommodation under the ADA. For an argument supporting Hawaii's need to maintain such quarantines, *see*: Ginger G.U. Chong, Hawaii's Quarantine Laws: Can Spot Come Home?, 13 U. Haw. L. Rev. 175, 1991.
[9] U.S. CONSTITUTION, AMENDMENT 5.
[10] Jacobson v. Commonwealth of Massachusetts**,** 25 S.Ct. 358, (1905).
[11] Miller v. Schoene, 276 U.S. 272; 48 S.Ct. 246; 72 L. Ed. 568 (1928).
[12] Ohio State University Extension Fact Sheet, Cedar Rust Diseases of Ornamental Plants http://ohioline.osu.edu/hyg-fact/3000/3055.html
[13] *Id*.
[14] *Id*.
[15] *Id*. *See also*: Michigan State University Extension bulletin: Ornamental Plants Plus Version 3.0, 11/12/99, Cedar Apple Rust http://www.msue.msu.edu/imp/modzz/00001675.html The bulletin includes a section for Control: "Control: If practical, destroy nearby junipers or prune off galls in late fall or early spring before crab apples bloom."
[16] Cedar Rust of Virginia, Va. Acts 1914, c. 36, as amended by Va. Acts 1920, c. 260, and at the time of the case embodied in the VA. CODE ANN. (1924) as §§ 885 to 893. The current provisions are VA. CODE ANN. § 3.1-188.20 et seq., Chapter 13, Plant and Tree Pests. A similar cedar rust act was challenged in Nebraska and upheld: Upton v. Felton, 4 F.Supp. 585, (D.Neb. Dec 30, 1932)
[17] Miller v. Schoene, 276 U.S. 272; 48 S. Ct. 246; 72 L. Ed. 568 (1928). In the autumn of 1928, the Supreme Court again upheld the Virginia law in a similar case involving the cedar rust act, in Kelleher v. French, 49 S.Ct. 35, 35, 278 U.S. 563, 563, 73 L.Ed. 507 (1928).
[18] Miller v. State Entomologist, 135 S.E. 813 at 814 (1926).
[19] Miller v. Schoene, supra., at 278.
[20] *Id*.
[21] *Id*., at 277.
[22] *Id*.
[23] *Id*., *see*: Miller v. State Entomologist, 146 Va. 175 (1926).
[24] *Id*.
[25] *Id*., at 279

[26] *Id*.
[27] *Id*.
[28] The Virginia Supreme Court of Appeals wrote "[t]he State was not taking or damaging the property of the owner for either a public or a private use. It was simply abating a nuisance, and requiring the owner to so use his property as not to injure another. While under no obligation to do so, the legislature seems to have been willing to pay such incidental damages and expenses as we have indicated, to make the owner whole in this respect, and the statute so provided." Miller v. State Entomologist, *supra*, at 819.
[29] *Id*., at 281.
[30] Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992), at 2896-7. Immediately following this quote, the Court directed the reader to a number of the other landmark cases in private property and takings analysis: *See* Mugler v. Kansas, 123 U.S. 623, 8 S.Ct. 273, 31 L.Ed. 205 (1887) (law prohibiting manufacture of alcoholic beverages); Hadacheck v. Sebastian, 239 U.S. 394, 36 S.Ct. 143, 60 L.Ed. 348 (1915) (law barring operation of brick mill in residential area); Miller v. Schoene, 276 U.S. 272, 48 S.Ct. 246, 72 L. Ed. 568 (1928). (order to destroy diseased cedar trees to prevent infection of nearby orchards); Goldblatt v. Hempstead, 369 U.S. 590, 82 S.Ct. 987, 8 L.Ed.2d 130 (1962) (law effectively preventing continued operation of quarry in residential area)
[31] *Id*.
[32] *Id*., at 2899.
[33] *Id*., at 2889.
[34] *Id*., at 2900.
[35] *Id*., at 2897.
[36] *Id*., at 2897, citing S.C. CODE ANN. § 48-39-250 (Supp. 1991), subsection 4.
[37] *Id*., at 2901.
[38] *Id*., at 2901, quoting Webb's Fabulous Pharmacies, Inc. v. Beckwith, 449 U.S. 155, 164, 101 S.Ct. 446, 452, 66 L.Ed.2d 358 (1980).
[39] *Id*.
[40] Keystone Bituminous Coal Association v. DeBenedictis, 480 U.S. 470, 94 L. Ed. 2d 472, 107 S. Ct. 1232 (1987).
[41] *Id*., at 1244.
[42] *Id*., at 1242.
[43] *Id*., internal quotations omitted.
[44] *Id*., at 1257.
[45] *Id*., at 1256.
[46] Penn Central Transportation Co. v New York City, 438 U.S. 104, 57 L.Ed. 2d 631, 98 S. Ct. 2646 (1978).
[47] *Id*., at 2660.
[48] *Id*., at 2659.
[49] *Id*., at 2661, referencing New Orleans v. Dukes, 427 U.S. 297, 96 S.Ct. 2513, 49 L.Ed.2d 511 (1976); Young v. American Mini Theatres, Inc., 427 U.S. 50, 96 S.Ct. 2440, 49 L.Ed.2d 310 (1976); Village of Belle Terre v. Boraas, 416 U.S. 1, 9-10, 94 S.Ct. 1536, 39 L.Ed.2d 797 (1974); Berman v. Parker, 348 U.S. 26, 33, 75 S.Ct. 98, 102, 99 L.Ed. 27 (1954); Welch v. Swasey, 214 U.S., at 108, 29 S.Ct., at 571,
[50] *Id*., at 2663.
[51] *Id*., at 2667.
[52] *Id*., at 2667-8
[53] *Id*., at 2670, Fn8.
[54] *Id*., at 2670.
[55] *Id*.
[56] United States v. Locke, 471 U.S. 84, 85 L. Ed. 2d 64, 105 S.Ct. 1785 (1985), at 1799.
[57] Texaco, Inc. v. Short, 454 U.S. 516, 70 L. Ed. 2d 738, 102 S. Ct. 781 (1982).
[58] *Id*., at 791, quoting Miller, *supra*, at 272, 246, 568.
[59] Heiner v. Donnan, 285 U.S. 312, 76 L. Ed. 772, 52 S. Ct. 358, (1932), at 369, Justice Stone, dissenting.
[60] In re Gault, 387 U.S. 1, 18 L. Ed. 2d 527, 87 S. Ct. 1428 (1967), Justice Harlan, dissenting.
[61] Nashville, C. & S. L. Railway v. Walters, 294 U.S. 405, 79 L. Ed 949, 55 S. Ct. 486, (1933) at 429, 963,495.

[62] Miller v. McLaughlin, 281 U.S. 261, 74 L. Ed. 840, 50 S. Ct. 35 (1928), at 264, 848, 297. In this case, the materials of violation were fishing tackle and supplies.
[63] Raynor v. Maryland Dept. of Health and Mental Hygiene, 676 A. 2d 978, Md. App. (1996).
[64] *Id*., at 987.
[65] *Id*.
[66] *Id*., at 988-89.
[67] *Id*., at 990.
[68] *Id*., at 991.
[69] *Id*.
[70] Skinner v. Coy, 90 P. 2d 296, CA (1939)
[71] *Id*., at 298.
[72] *Id*.
[73] *Id*., at 304.
[74] Graham v. Klingwell, 24 P. 2d 488, CA (1933).
[75] *Id*., at 489.
[76] Campoamor v. State Live Stock Sanitary Bd., 182 So. 277, Fla. (1938).
[77] CDC Factsheet: Brucellosis, 1998. http://www.cdc.gov/od/oc/media/fact/brucello.htm
[78] Facts about Brucellosis, U.S. Dept. of Agriculture Veterinary Services. http://www.aphis.usda.gov/vs/nahps/brucellosis/ USDA estimates that costs to the nation from Brucellosis have dropped from $400 million in 1952 to $1 million today. Seventy years after the eradication effort began, there are still six states that have brucellosis. Testing and ordering infected animals to slaughter is still the primary control method. The disease can pass to humans through raw (unpasteurized) milk and through contact with infected tissues; it cannot be passed through cooked meat.
[79] Capmoamor, *supra*, at 279.
[80] *Id*.
[81] *Id*., at 279-80.
[82] Conner v. Carlton, 223 So. 2d 324, Fla. (1969). Appeal Dismissed: Carlton v. Conner, 396 U.S. 272, 90 S.Ct. 481, 24 L.Ed.2d 417 (U.S.Fla. Dec 15, 1969); Rehearing denied: Carlton v. Conner, 397 U.S. 929, 90 S.Ct. 900, 25 L.Ed.2d 110 (U.S.Fla. Feb 24, 1970)
[83] *Id*., at 325.
[84] *Id*., at 326.
[85] *Id*., at 327.
[86] *Id*.
[87] *Id*., at 328.
[88] *Id*., at 329.
[89] Passed by the First Called Session of the Forty-First Legislature of the state of Texas, to become effective August 20, 1929 (Vernon's Ann. P.C. Tex. art. 1525c, Secs. 1-37), currently at TEX. AGRIC. CODE ANN. § 167.001 et seq.
[90] Historical information and pictures of the ticks can be seen at http://ag.smsu.edu/motick6.htm
[91] Texas Animal Health Commission, Fighting the Tick Fever—Cleaning Up Infected Premises, at: http://www.tahc.state.tx.us/news/brochures/fever_tick.pdf
[92] *Id*.
[93] *Id*.
[94] *Id*., see TEX. AGRIC. CODE ANN. § 167.001 et seq
[95] Armstrong v. Whitten, et al. 41 F2d 241 (1930), at 241.
[96] *Id*., at 241-2.
[97] *Id*., at 242.
[98] *Id*., at 242-43.
[99] *Id*., at 244.
[100] *Id*., at 247. Internal quotations omitted.
[101] *Id*., at 246.
[102] *Id*., at 247.
[103] *Id*., at 248.
[104] 9 C.F.R. §§ 85.1- .13 (1984).
[105] Johansson v. Board of Animal Health, 601 F. Supp. 1018, D. Minn., (1985)

[106] USDA, Veterinary Services Pseudorabies Q&A. http://www.aphis.usda.gov/vs/nahps/pseudorabies/q-a.html
[107] Minn.Rules §§ 1705.2060-.2320 (1983). The disease is not transferable to humans, either through contact or through consumption of meat from infected animals.
[108] Johansson, *supra*, at 1020. Johansson claimed to have lost $180,000 to $200,000 due to the quarantine.
[109] *Id*., at 1021.
[110] *Id*.
[111] City of New Orleans v. Dukes, 427 U.S. 297, 303, 96 S.Ct. 2513, 2517, 49 L.Ed.2d 511 (1976) (per curiam).
[112] Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 461-62, 101 S.Ct. 715, 722-723, 66 L.Ed.2d 659 (1981)
[113] Johansson, *supra*, at 1021.
[114] *Id*., at 1022.
[115] *Id*., at 1023-24, referencing Ferguson v. Skrupa, 372 U.S. 726, 731-32, 83 S.Ct. 1028, 1031-32, 10 L.Ed.2d 93 (1963).
[116] CDC Bird Flu Fact Sheet, February 4, 2004: http://www.cdc.gov/flu/avian/outbreak.htm
[117] Officials Seek Approval to Begin Wider Testing for Bird Flu, N.Y. TIMES, March 14, 2004.
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[133] Empire Kosher Poultry, Inc. v. Hallowell, 816 F. 2d 907, 3rd Cir., (1987).
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[135] *Id*.
[136] *Id*., at 910.
[137] *Id*. *See*: Empire Kosher Poultry, Inc. v. Pennsylvania, Civ. No. 84-0196.
[138] *Id*., at 911.
[139] 9 C.F.R. § 81.15 (1984)
[140] Empire Kosher, *supra*, at 911.
[141] *Id*.
[142] *Id*.
[143] *Id*., at 912. Citing Wiliamson v. Lee Optical inc., 348 U.S. 483, 75 S. Ct. 461, 99 L. Ed. 563 (1955).
[144] *Id*., at 912-13.
[145] *Id*., at 913-14.
[146] *Id*., at 914.
[147] *Id*., at 915. Keystone Bituminous Coal Ass'n. v. DeBenedictis, *supra*.

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[149] *Id.*
[150] *Id.*, at 916.
[151] *Id.*, at 917.
[152] Yancey v. U.S., 915 F.2d 1534, 59 USLW 2213 (Fed.Cir. Sep 28, 1990) (NO. 89-1698, 89-1729), rehearing denied (Jan 04, 1991), suggestion for rehearing in banc declined (Feb 06, 1991).
[153] *Id.*, at 1535.
[154] *Id.*, at 1536. The relevant federal regulations were 49 Fed.Reg. 3446-3448, amended at 9 C.F.R. § 53.2(b) (1990). Internal quotations omitted.
[155] *Id.*, at 1536.
[156] *Id.*
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[158] Yancey v. United States, 10 Cl. Ct. 311, (1986).
[159] Section 114a of title 21 United States Code §§ 114 to 114a-1. Repealed. Pub.L. 107-171, Title X, § 10418(a)(8), May 13, 2002, 116 Stat. 508
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[161] Loftin v. United States, 6 Cl. Ct. 596 (1984), *aff'd*, 765 F. 2d. 1117 (Fed Cir. 1985).
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[164] *Id.*
[165] *Id.*, at 1540.
[166] *Id.*, at 1541.
[167] *Id.*, at 1542.
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[169] *Id.*
[170] Wright v. U.S., 14 Cl.Ct. 819 (Cl.Ct. May 31, 1988)
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[173] USDA APHIS: The Sentinel Tree Survey Program: Standing Guard. April, 2003. http://www.aphis.usda.gov/oa/pubs/pub_phsentinel.html For pictures of citrus canker, *see*: http://www.doacs.state.fl.us/pi/canker/photos.html
[174] *Id.*
[175] *Id.*
[176] Haire v. Florida Dept. of Agriculture and Consumer Services, 2004 WL 252015 Fla.,2004.
[177] *Id.*, at 2.
[178] *Id.*, at 2-3.
[179] Florida Dept. of Agriculture and Consumer Protection v. Haire, 836 So. 2d 1040, Fla.App. 4th Dist. 2003, at 1044-45.
[180] F.S.A. § 581.184 581.184. Adoption of rules; citrus canker eradication; voluntary destruction agreements
1) As used in this section, the term:
(a) "Infected or infested" means citrus trees harboring the citrus canker bacteria and exhibiting visible symptoms of the disease.
(b) "Exposed to infection" means citrus trees located within 1,900 feet of an infected tree.
(2)(a) The department shall remove and destroy all infected citrus trees and all citrus trees exposed to infection.
[181]Fla. Dept. of Agriculture v. Haire, 836 So. 2d 1040, at 1045.
[182] F.S.A. section 581.1845, Florida Statutes (2003) Emphasis added.
[183] Haire v. Florida Dept. of Agriculture and Consumer Services, 2004 WL 252015 Fla.,2004., at 5.
[184] *Id.*, at 6.
[185] *Id.*, at 7. (internal quotations omitted).
[186] *Id.*

[187] *Id*., at 8.
[188] *Id*., at 12. An interesting effort would be to survey cases in the area of Fourth Amendment search and seizure jurisprudence and how it relates to the ability of animal and plant health officials to enter onto private property without warrants to abate nuisances.
[189] Stockwell v. State, 221 S.W. 932, Tex. 1920.
[190] *Id*., at 935.
[191] *Id*., at 934-35.
[192] Balch v. Glenn, 119 P. 67, Kan. 1911.
[193] University of Kentucky Entomology, San Jose Scale, revised Jan. 2004, at: http://www.uky.edu/Agriculture/Entomology/entfacts/fruit/ef204.htm
[194] Balch, *supra*, at 70.
[195] *Id*., at 71.
[196] Shafford v. Brown, 95 P. 270, Wash. 1908
[197] *In re* Property Located at 14255 53rd Ave., S., Tukwila, King County, Washington**,** 86 P.3d 222, Wash.App. Div. 1, 2004.
[198] *Id*., at 223.
[199] Washington State Department of Agriculture, Citrus Longhorned Beetle, updated 9/12/03. http://agr.wa.gov/PlantsInsects/InsectPests/CLHB/default.htm
[200] *In re* Property, supra, at 223.
[201] *Id*.
[202] *Id*., at 224.
[203] *Id*.
[204] Keystone Bituminous Coal Assn, *supra* 480 U.S. 470, 1987.
[205] *In re* Property, *supra*, at 226-27.
[206] *Id*., at 227, also citing Armstrong v. United States, 364 U.S. 40 (1960).
[207] *Id*., at 228, quoting Miller, 276 U.S. at 277. Italics and emphasis in original.
[208] *Id*., at 229.
[209] *Id*.
[210] Miller v. Schoene, *supra*, at 279.
[211] David Tuller, If SARS Hits U.S., Quarantine Could Too, N.Y. TIMES, December 9, 2003.
[212] USDA Factsheet, Q&A Biosecurity, 10/25/01 http://www.usda.gov/homelandsecurity/anthraxq&a.htm see also, USDA Homeland Security Efforts, June 2003 http://www.usda.gov/homelandsecurity/factsheet0603.pdf
[213] *Id*.
[214] For a more in depth discussion about the overlapping jurisdictions at the federal level in particular, *see*: Trust for America's Health: Animal-Borne Epidemics Out of Control: Threatening the Nation's Health. August 2003. http://healthyamericans.org/reports/files/Animalreport.pdf
[215] The December 2001 draft is available at http://www.publichealthlaw.net/MSEHPA/MSEHPA2.pdf for related materials, *see*: http://www.publichealthlaw.net/
[216] *Id*., at 7.
[217] *Id*., at 39.
[218] *Id*., at 25.
[219] Sue Blevins, The Model State Emergency Health Powers Act: An Assault on Civil Liberties in the Name of Homeland Security, Heritage Lecture #748 June 10, 2002. The Heritage Foundation: http://www.heritage.org/Research/HealthCare/HL748.cfm
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[221] Edward P. Richards, et al., Legislative Alternatives to the Model State Emergency Health Powers Act (MSEHPA) LSU Program in Law, Science, and Public Health White Paper #2, April 21, 2003. ***http://biotech.law.lsu.edu/blaw/bt/MSEHPA_review.htm***