

Will the Fire Ant Be California's Next "State of Emergency?"

INTRODUCTION

Those who cannot remember the past are condemned to repeat it.¹

History is replete with problems resulting from artificial introductions of non-native species into the United States. Two examples of such species include the Mediterranean fruit fly (Medfly) and imported fire ant. Both present a great threat to society in areas of infestation.²

The Medfly is considered to be a public nuisance,³ because it can contaminate food, decimate the agricultural economy and throw thousands of people out of work if it is not eradicated. However, California's delayed efforts to eliminate or control the Medfly resulted in unexpected personal injury and property damage, requiring the government to declare a state of emergency.⁴ With preemptive action, this destruction could possibly have been avoided.

The fire ant may be California's next state of emergency. Fire ants can be very irritating. However, the fire ant which is now found in Texas is known to cause more problems than mere irritation. Fire ants are also considered to be a nuisance.⁵ Texas has

¹ George Santayana, 1863-1952, U.S. philosopher and author born in Spain.

² "Infest" means to spread in a troublesome manner. WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 619 (9th ed. 1993).

³ CAL. FOOD & AGRIC. CODE § 5762 (Deering 1994 & Supp. 1995), provides: Any pest with respect to which an eradication area has been proclaimed, and any states of the pest, its hosts and carriers, and any premises, plants, and things infested or infected or exposed to infestation or infection with such pest or its hosts or carriers, within such area, are public nuisances, which are subject to all laws and remedies which relate to the prevention and abatement of public nuisances.

⁴ CAL. GOV'T. CODE § 8558(b) (Deering 1994 & Supp. 1995).

⁵ The fire ant is characterized by the National Academy of Science as an agricultural nuisance. *Environmental Defense Fund, Inc. v. Blum*, 458 F. Supp. 650,

a dense population of fire ants⁶ and, unfortunately, California may be next in line to deal with this problem.⁷ The fire ants are unable to withstand hard winters, and the mild climate and agricultural land in California⁸ may be the next appealing place for the ants to establish their new homes.⁹

California has specific statutes prohibiting the importation of such pests as the Medfly.¹⁰ It appears the legislature is not anticipating a fire ant problem any time soon, because California abolished its fire ant committee. Hopefully the legislature is not overlooking the possibility that fire ants may pose a threat to California.¹¹

This comment examines how the State of California dealt with the Medfly infestation and compares it with Texas' fire ant eradication program. This comment further analyzes the problems California created for its citizens and the resulting lawsuits from exposure to pesticide treatment of the Medfly. Should the fire ant invade California, there is much to learn not only from past mistakes with the Medfly, but also from Texas.

653 (D.D.C. 1978).

⁶ *Fire Ant an Ecological and Agricultural Scourge* (National Public Radio, Aug. 26, 1995).

⁷ *United States Issues Stern Warning to Serbs* (ABC television broadcast, July 21, 1995).

⁸ Bruce Tomaso, *Mounds of Misery*, DALLAS MORNING NEWS, May 14, 1995, at 1A.

⁹ *Environmental Defense Fund v. Hardin*, 325 F. Supp. 1401, 1404 (D.D.C. 1971).

¹⁰ CAL. FOOD & AGRIC. CODE § 6306 (Deering 1994 & Supp. 1995) provides: "Unless otherwise permitted by law, any person who willfully and knowingly imports into, or who willfully and knowingly transports or ships within, this state, a Mediterranean fruit fly is guilty of a felony."

¹¹ CAL. GOV'T CODE § 8001 (Deering 1994 & Supp. 1995) provides in pertinent part:

"(a) Notwithstanding any other provision of law, the following advisory bodies are hereby abolished:

.....

(57) Red Imported Fire Ant Science Advisory Panel.

.....

(b) As used in this section "advisory body" means any committee, council, task force, board, panel, or other governmental entity."

I. CHARACTERISTICS OF THE MEDFLY AND THE FIRE ANT

A. *The Medfly*

Injurious exotic fruit flies include the Mediterranean, melon, Mexican, Oriental, Caribbean, and peach fruit flies.¹² The Medfly, at adulthood, is approximately half the size of a pencil eraser.¹³ During the life of a single female, which is typically between one and two months, she may lay up to 1,200 eggs. After the female deposits her eggs under the skin of fruits, the eggs hatch into tiny maggots¹⁴ which feed on the pulp of the product. The maggots mature, drop to the ground, and emerge as new adult flies, dieting on insect excretions, honeydew, plant sap and nectar. As many as five generations of Medfly are developed per year in California.¹⁵ The explosive reproductive potential of the Medfly in California makes their rapid eradication imperative.

B. *The Fire Ant*

Similar to California's Medfly problem is Texas' infestation of fire ants. Society is all too familiar with the native ants which can be found trailing their way through parks, gardens, backyards, or even searching their way into one's home or office. In Texas there are four species of fire ants; three of which are native to the state.¹⁶ The red imported fire ant, which has largely replaced native fire ants in areas of infestation, has caused the most concern.¹⁷

It is difficult to distinguish between the physical characteristics of native and imported fire ants without having the specimens preserved in alcohol and identified by specialists.¹⁸ However, the red imported fire ant can be distinguished from the native ants

¹² CAL. DEP'T OF FOOD AND AGRIC., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT, THE EXOTIC FRUIT FLY ERADICATION PROGRAM USING AERIAL APPLICATION OF MALATHION AND BAIT 1 (1994).

¹³ CAL. DEP'T OF FOOD AND AGRIC., FACTS ABOUT THE MEDITERRANEAN FRUIT FLY AND EFFORTS TO KEEP IT FROM BECOMING ESTABLISHED IN CALIFORNIA 3 (1994).

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ The most common native ant species in Texas are the tropical fire ant, *Solenopsis Geminata* Fabricius, and the southern fire ant, *S. Xyloni* McCook. The most rarely observed native species is the *S. Aurea* Wheeler. BASTIAAN M. DREES & S. BRADLEIGH VINSON, FIRE ANTS AND THEIR MANAGEMENT 1 (1991).

¹⁷ *Id.*

¹⁸ *Id.* at 2.

in that the former will build its mounds in open, sunny areas. There is no opening visible on the mound surface because the ants build underground tunnels by which to leave the mound. Unlike most native ant species, fire ants are aggressive. For example, if their mound is disturbed by a stick, the fire ants will readily run up the stick to attack the molester instead of running away.¹⁹

II. HISTORY OF THE SPECIES

A. *The Medfly*

The first introduction of the Medfly into the United States was in Hawaii in 1910.²⁰ The fly was found on the U.S. mainland in 1929 and again in 1956. The first Medfly outbreak in California was in Los Angeles in 1975. The Medfly was introduced to California through three major avenues: (1) travelers, particularly airline passengers, bringing infested fruit into the State; (2) private shipments of infested fruit through the U.S. mail; and (3) commercial smugglers selling infested fruit to open-air stands.²¹

B. *The Fire Ant*

In 1918, the red imported fire ant came to the Southern United States from South America.²² It reached Texas in 1950 and continues to spread steadily across the state.²³ This explosive spread of fire ants was partly a natural spreading process and partly accomplished from transportation by man. The fire ants are capable of dispersing naturally through mating flights or by floating in flood water to new locations. Also, if queen fire ants that are newly-mated land in automobiles or trains, they are capable of traveling long distances. Shipments of soil or nursery stock may relocate an entire colony of fire ants, causing new problems to areas otherwise not infested. While spreading across the state of Texas, the imported fire ant has largely replaced the native fire

¹⁹ *Id.*

²⁰ 7 DEBBIE G. CALVO, ISSUES IN FOOD SAFETY, MEDFLY THREAT PROMPTS AGGRESSIVE ERADICATION PROGRAM 3 (1994).

²¹ *Id.*

²² *Environmental Defense Fund v. Hardin*, 325 F. Supp. 1401, 1404 (D.D.C. 1971).

²³ DREES & VINSON, *supra* note 16.

ants in areas of infestation.²⁴

III. THE ECONOMIC EFFECTS OF PEST ESTABLISHMENT ON AGRICULTURE

A. *The Medfly*

The Medfly is less than welcome in the State of California. If the Medfly became permanently established in California, as in Florida, Hawaii and Texas,²⁵ the effect on commercial agriculture and consumers would be devastating.²⁶ The cost of keeping the Medfly under control would cause a significant increase in the price of produce, and consumers could be forced to pay an additional \$821 million per year for fruits and vegetables.²⁷ Because bacteria and other organisms also enter the fruit or vegetable at the egg laying site, the entire product containing the eggs would be damaged.²⁸ Further, the Medfly infestation would cause a federal quarantine on most California produce and trade embargoes by foreign countries.²⁹

The Medfly species is a significant pest in backyard gardens, because infested produce is poorer quality and less appealing to the eye.³⁰ Since fruits and vegetables infested by the Medfly drop and rot prior to ripening, gardeners and farmers would be forced to use increasing amounts of pesticides just to keep the Medfly under control.³¹ The price of pesticides would also increase.³²

Establishment of the Medfly in California would not be solely a problem for the farmers and home growers. Even those persons not directly related to agriculture would eventually be faced with the costly efforts of controlling the infestation. Employment in

²⁴ DREES & VINSON, *supra* note 16.

²⁵ CAL. DEP'T OF FOOD AND AGRIC., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT, THE EXOTIC FRUIT FLY ERADICATION PROGRAM USING AERIAL APPLICATION OF MALATHION AND BAIT 1 (1994).

²⁶ U.S. DEP'T OF AGRIC., BULLETIN NO. 636, ANIMAL AND PLANT HEALTH INSPECTION SERVICE (1994).

²⁷ *Id.*

²⁸ CAL. DEP'T OF FOOD AND AGRIC., FACTS ABOUT THE MEDITERRANEAN FRUIT FLY AND EFFORTS TO KEEP IT FROM BECOMING ESTABLISHED IN CALIFORNIA 3 (1994).

²⁹ *Id.*

³⁰ U.S. DEP'T OF AGRIC., BULLETIN NO. 636, ANIMAL AND PLANT HEALTH INSPECTION SERVICE (1994).

³¹ *Id.*

³² CAL. DEP'T OF FOOD AND AGRIC., FACTS ABOUT THE MEDITERRANEAN FRUIT FLY AND EFFORTS TO KEEP IT FROM BECOMING ESTABLISHED IN CALIFORNIA 3 (1994).

California would be affected by the establishment of the Medfly. Agricultural related employment would predictably decline, as would employment in industries that are related to agriculture throughout California.³³

B. *The Fire Ant*

The Medfly has no beneficial effect on the agricultural land in California. Conversely, fire ants could have both a positive and negative impact on agricultural land.³⁴ In sugarcane and cotton industries no control of the fire ant is needed; they are considered to be beneficial.³⁵ Further, in pecan orchards, fire ants may be useful because they prey on pecan weevils and hickory shuck worms in fallen pecans. The ant mounds aerate the soil of the orchard floor,³⁶ which may be of great benefit to the agricultural land of California.

Like the Medfly, however, the fire ant has a damaging impact on agriculture. The fire ants eat vegetables and fruits, tunnel into potatoes underground and feed on okra buds. They feed on watermelon, cucumbers and damage soybean and peanut plantings, and the meat of cracked pecans. Fire ants also encourage aphids by preying on their natural enemies. The pests have also been known to damage irrigation systems, and the ants' large mounds may interfere with harvesting operations.³⁷

Since California's main economic resource is agriculture, the fire ant may pose an even greater threat to California's economy than it has to Texas'. If the fire ant becomes established in California, it could be as disastrous for the State of California and its agricultural industry as the Medfly.

³³ *Id.*

³⁴ *Id.* at 6.

³⁵ Fire ants are predators of cotton worms and boll weevils. Up to 85% of boll weevils and 93% of bollworm eggs were eaten by red fire ants without damaging cotton crops. *Information Bank Abstracts*, NEW YORK TIMES, Sept. 22, 1978, at 86.

³⁶ DRESS & VINSON, *supra* note 16, at 7.

³⁷ DRESS & VINSON, *supra* note 16, at 7.

IV. MEDFLY AND FIRE ANT ERADICATION EFFORTS IN THE UNITED STATES

A. *Efforts to Eradicate the Medfly*

Medfly eradication methods have been used in North America over the last seventy years. In 1929, Florida ground sprayed lead arsenate and molasses to host plants and did extensive fruit stripping.³⁸ By 1956, invasion of the Medfly caused Florida to apply Malathion aerially to areas of infestation. Texas also utilized Malathion in 1966. By 1978 the Medfly had spread to southern Mexico. Mexico now has a permanent fly-free buffer zone to prevent the Medfly from re-entering at the Mexico-Guatemala border. This zone was established by aerial application of Malathion and bait and is maintained by the release of sterile flies.³⁹

Fruit fly eradication was first conducted in California in the 1950's following the discovery of infestations of Mexican fruit fly and other fly species. Since 1979, more than fifty infestations of injurious exotic fruit flies have been eradicated from California.⁴⁰

Ground and/or aerial eradication methods have been employed in California in combating the Medfly invasion. One ground control method utilized was host elimination, which was achieved by permanently removing the host plants from a specific area and destroying plant material containing eggs or larvae.⁴¹ When the host removal method was utilized in 1980, it resulted in hardship for both the farmer and the state.⁴² If a farmer intentionally or even negligently failed to remove the host plants, he could be fined up to five hundred dollars (\$500) and/or imprisoned.⁴³ In order for the State to enforce the removal of the host,

³⁸ CAL. DEP'T OF FOOD AND AGRIC., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT, THE EXOTIC FRUIT FLY ERADICATION PROGRAM USING AERIAL APPLICATION OF MALATHION AND BAIT 6 (1994).

³⁹ *Id.* at 7.

⁴⁰ *Id.* at 1.

⁴¹ CAL. DEP'T OF FOOD AND AGRIC., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT, THE EXOTIC FRUIT FLY ERADICATION PROGRAM UTILIZING MALE ANNIHILATION AND ALLIED METHODS 28 (1993).

⁴² In *Martin v. Municipal Court*, the defendant was ordered by the state of California to remove host materials from his property. He then petitioned for an injunction and restraining order but both were denied. Thereafter, a state crew removed over 200 pounds of host fruit from defendant's property. *Martin v. Municipal Court*, 148 Cal. App. 3d 693, 695 (1983).

⁴³ CAL. GOV'T CODE § 8665 (Deering 1994 & Supp. 1995) provides:

Any person who violates any of the provisions of this chapter

it had to go through the lengthy process of obtaining an inspection warrant, allowing it to go onto the farmer's land with a crew to remove the host fruit.⁴⁴ As a result of such hardships, this method did not prove to be a successful eradication method.

A second ground control method in controlling the Medfly was fruit stripping, where all infested fruit within a given area were picked and sealed in plastic bags until it was physically destroyed. This method was useful in protecting nontarget arthropods. However, it did not kill the adult fruit flies. Fruit stripping encouraged the Medfly to search for suitable hosts. Therefore, primary reliance on this method could not achieve eradication.⁴⁵

A third ground control method was physical barriers to prevent oviposition.⁴⁶ This method was utilized in Japan, but was extremely costly and labor intensive.⁴⁷

A final ground control method was trap crop. Trapping programs began in California in 1911 and the 1940's, respectively.⁴⁸ With this method, plants which attracted pests were purposefully grown and then sprayed regularly so that flies attracted to the plants were killed. This method was effective because it confined pesticide use to trap crop plantings. However, it was ineffective on many fruit fly species and against high population densities.⁴⁹

There were also aerial control methods used in California in controlling the Medfly. The aerial methods are accomplished by using chemicals, insecticides, or other materials such as spray, dust, or bait.⁵⁰

or who refuses or willfully neglects to obey any lawful order or regulation promulgated or issued as provided in this chapter, shall be guilty of a misdemeanor and, upon conviction thereof, shall be

punished by a fine of not to exceed one thousand dollars (\$1,000) or by imprisonment for not to exceed six months or by both such fine and imprisonment.

⁴⁴ *Martin v. Municipal Court*, 148 Cal. App. 3d 693, 695 (1983).

⁴⁵ CAL. DEP'T OF FOOD AND AGRIC., *supra*, note 41.

⁴⁶ *Id.* at 29.

⁴⁷ *Id.*

⁴⁸ CAL. DEP'T OF FOOD AND AGRIC., *supra*, note 12, at 1.

⁴⁹ CAL. DEP'T OF FOOD AND AGRIC., *supra*, note 41, at 30.

⁵⁰ CAL. CODE REGS., tit. 3, § 3591.5(c)(1) (1995).

B. Efforts to Eradicate the Fire Ant

There are various federal laws which authorize the United States Secretary of Agriculture to carry out the methods necessary to eradicate, suppress, or control the spread of the fire ant.⁵¹ The control programs may be carried out either independently or in cooperation with authorities of the involved states, organizations, or individuals.

The first organized fire ant control program was initiated in Alabama in 1937.⁵² Approximately 2,000 acres of cropland were treated by physically trying to destroy the ant mounds. Holes

⁵¹ The statutory authorities vested in the United States Department of Agriculture pertaining to program actions concerning the imported fire ant include the following:

7 U.S.C. § 147(a), which states in pertinent part:

(a) Authority of Secretary of Agriculture. The Secretary of Agriculture, either independently or in cooperation with States or political subdivisions thereof, farmers' associations and similar organizations, and individuals, is authorized to carry out operations or measures to detect, eradicate, suppress, control, or to prevent or retard the spread of plant pests.

(b) Intergovernmental cooperation. The Secretary of Agriculture is further authorized to cooperate with the governments of foreign countries, or the local authorities thereof, and with foreign or international organizations or associations, in carrying out necessary surveys and control operations in those countries in connection with the detection, eradication, suppression, control, and prevention or retardation of the spread of plant pests.

...

(e) Rules and regulations. The Secretary of Agriculture is authorized to promulgate such rules and regulations and use such means as he may deem necessary to provide for the inspection of plants and plant products offered for export or transiting the United States and to certify to shippers and interested parties as to the freedom of such products from plant pests according to the phytosanitary requirements of the foreign countries to which such products may be exported, or to the freedom from exposure to plant pests while in transit through the United States.

7 U.S.C. §151-65, 167 (1995); and 7 U.S.C. § 150(aa)-(jj) (1995).

⁵² HOMER COLLINS, U.S. DEP'T OF AGRIC., TECHNICAL BULLETIN NO. 1807, *Control of Imported Fire Ants* 5 (1992).

were dug in the mounds, a regulated amount of insecticide dust was applied and then the mound was covered with soil. By 1948, Mississippi had spent \$15,000 in efforts to control the fire ant. Fire ants were found in North Carolina in 1952, but establishment of the fire ant was prevented because treatment was promptly begun.⁵³

In 1957, because of public concern regarding the increasing spread of the ant, Congress initiated a program to control the ants through eradication. Under this program, during a twelve-month period, Congress appropriated \$2.4 million, an amount that was matched by state and local government and individual farmers. Arkansas was one of the first states to be successful in preventing the establishment of the fire ant by conducting an eradication program whereby aircraft sprayed some 12,000 acres of infestation.⁵⁴

When the eradication started in 1957, two pounds of granular pesticide were applied per acre of infested land. However, because of residue left from the pesticides and growing concern for wildlife, the rate was changed to 0.25 pounds per acre. Ultimately, in late 1958, Congress suspended the fire ant control program until an evaluation could be taken regarding the benefits and dangers of the eradication program. Further, because residues of heptachlor were found in meat and milk, the Food and Drug Administration of the United States Department of Health, Education, and Welfare lowered the tolerance for heptachlor residue to zero on harvested crops.⁵⁵

By 1978, fire ants were found in nine southern states, including Texas, Arkansas, Alabama, Georgia, Florida, Mississippi, Louisiana, North Carolina and South Carolina.⁵⁶ Modernly, fire ants infest over 280 million acres in the South.⁵⁷

The eradication program in the 1960's and 1970's proved to be less than prosperous.⁵⁸ The chemicals used during the eradication destroyed non-target organisms such as the native ant species. With the elimination of the native ants, fire ants became well es-

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Environmental Defense Fund, Inc. v. Blum*, 458 F. Supp. 650, 653 n.1 (D.D.C. 1978).

⁵⁷ *United States Issues Stern Warning to Serbs* (ABC television broadcast, July 21, 1995).

⁵⁸ DRESS & VINSON, *supra* note 16, at 3.

tablished, preventing the native ants from reestablishing colonies. This meant that instead of controlling the fire ant, the eradication aided in its spread. Even though approximately 2.5 million acres of land were treated during this program, by 1971 the fire ants infested approximately 126 million acres of land in Texas.⁵⁹

In 1991, the Texas Agricultural Extension Service provided "[t]hat eradication is not technically, environmentally or economically feasible in fully infested areas."⁶⁰ This meant that because chemicals would only provide for temporary control of the fire ants, the chemicals would have to be reapplied periodically.⁶¹ However, modernly a landowner has a choice among several ground control methods, meaning that Texans are no longer exposed to exceedingly persistent, potentially carcinogenic pesticides.⁶² The preferred method of control of the fire ant is the Broadcast application.⁶³ It is the least expensive method and can be achieved either by aerial or ground dispersal, depending on the size of the area of infestation. Lawns can be treated by using hand-held applicators. For larger areas, there are systems which can be installed in tractors and other vehicles to minimize the application of pesticides.⁶⁴

V. PEST ERADICATION PROGRAMS MAY NOT ELIMINATE PROPERTY DAMAGE

A. *Lawsuits Arising from California's Medfly Eradication Efforts*

By 1980, individual counties in California lacked the equipment and personnel to control the continuing spread of Medfly throughout the state.⁶⁵ Therefore, the Governor of California, pursuant to the Emergency Services Act,⁶⁶ declared a state of emergency⁶⁷ directing that California's equipment and personnel

⁵⁹ DRESS & VINSON, *supra* note 16, at 3.

⁶⁰ DRESS & VINSON, *supra* note 16, at 3.

⁶¹ DRESS & VINSON, *supra* note 16, at 3.

⁶² Thomas O. McGarity, *Radical Technology-Forcing in Environmental Regulation*, 27 LOY. L.A. L. REV. 943, 947 (1994).

⁶³ HOMER COLLINS, U.S. DEP'T OF AGRIC., TECHNICAL BULLETIN NO. 1807, *Control of Imported Fire Ants* 10 (1992).

⁶⁴ *Id.*

⁶⁵ *Farmers Ins. Exch. v. State*, 175 Cal. App. 3d 494, 500 (1985).

⁶⁶ CAL. GOV'T. CODE § 8625 et. seq. (Deering 1994 & Supp. 1995).

⁶⁷ A state of emergency is defined as, "[t]he duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property

be utilized in controlling the Medfly.⁶⁸ Thereafter, the director of the Department of Food and Agriculture filed a regulation⁶⁹ on June 27, 1980, designating specific areas to be sprayed.⁷⁰ Eradication efforts gave rise to numerous problems, including property damage and personal injury.

The State of California aerially sprayed portions of southern California to combat the Medfly threat to crops. The pesticide spray caused erosion of paint on automobiles, obligating insurance companies to pay the claims of policy holders to have their vehicles repainted. As a result, in *Farmers Ins. Exchange v. State*, five insurance companies sought recompense from the State of California.⁷¹

The insurance company in *Farmers* claimed a government taking of private property.⁷² The court denied plaintiffs relief, reasoning that plaintiffs' damages arose out of the State's proper police power and therefore were noncompensable.⁷³ Exercise of valid police power by the Government is where it is "[r]easonably necessary to 'protect the order, safety, health, morals, and general welfare of society.'"⁷⁴ The court in *Farmers* held that the private interest of individuals were wholly subservient to the right of the state to proceed under a Medfly emergency aerial spraying.⁷⁵

It appears harsh to require individuals to absorb the expense of damage caused to property by the State's actions. However, public policy demands that where the state is faced with an emer-

within the state" CAL. GOV'T CODE § 8558(b) (Deering 1994 & Supp. 1995).

⁶⁸ *Farmers Ins. Exch. v. State*, 175 Cal. App. 3d 494, 500 (1985).

⁶⁹ CAL. FOOD and AGRIC. CODE § 5321 (Deering 1994 & Supp. 1995) provides: "If the director receives information of the existence of any pest which is not generally distributed within the state, he shall thoroughly investigate the existence and probability of its spread, and the feasibility of its control or eradication."

CAL. FOOD and AGRIC. CODE § 5322 (Deering 1994 & Supp. 1995) provides: "The director may establish, maintain, and enforce quarantine and such other regulations as are in his or her opinion necessary to circumscribe and exterminate or prevent the spread of any pest which is described in Section 5321."

⁷⁰ *Farmers Ins. Exch. v. State*, 175 Cal. App. 3d 494, 499 (1985).

⁷¹ *Id.* at 498.

⁷² CAL. CONST., art. I, § 19.

⁷³ *Holtz v. Superior Court*, 3 Cal. 3d 296, 305 (1970).

⁷⁴ *Freeman v. Contra Costa Country Water Dist.*, 18 Cal. App. 3d 404, 408 (1971).

⁷⁵ *Farmers Ins. Exch. v. State*, 175 Cal. App. 3d 494, 502 (1985).

gency such as a Medfly invasion, "[i]t must be able to act with speed and confidence without fear of incurring tort liability."⁷⁶

B. Proper State Action Is Necessary to Avoid Property Damage Caused by Fire Ants

A state's actions in controlling pests arise from a necessity to protect society from a costly pest invasion. The Medfly eradication efforts in California were economically burdensome on insurance companies because they were forced to pay claims of policy holders. Without proper individual or state action, fire ants also create economic hardships for property owners, who may find their property value diminished.

Fire ants build unattractive mounds which can reach ten to twelve inches in height.⁷⁷ Besides building unsightly mounds, fire ants burrow beneath cracked pavement to build their nests. They remove dirt from underneath sidewalks, driveways and roadways, which may cause aggravated structural problems. Apart from structural problems, fire ants may find their way into California schools and other public places through cracks in the concrete floors, diminishing the inside value of the property as well. Because the location of fire ant colonies may be inaccessible or unknown, treatment may be difficult or even impossible, causing problems for all California property owners.⁷⁸

VI. PERSONAL INJURY LAWSUITS ARISING FROM MEDFLY ERADICATION EFFORTS

By 1990 the Medfly infested over 200 varieties of fruit in California and posed a severe threat to the economy and welfare of the State of California.⁷⁹ In another attempt to eliminate the Medfly infestation, California engaged in an Emergency Eradication Project⁸⁰ under the authority of the Governor of California and the State Emergency Services Act.⁸¹ In Orange County, heli-

⁷⁶ *Id.* at 505.

⁷⁷ DRESS & VINSON, *supra* note 16, at 2.

⁷⁸ DRESS & VINSON, *supra* note 16, at 6.

⁷⁹ *Talevich v. Voss*, 734 F. Supp. 425, 427 (D.D.C. 1990).

⁸⁰ The Emergency Eradication Project was commenced pursuant to the California Food and Agriculture Code. CAL. FOOD & AGRIC. CODE § 5761-5763 (Deering 1994 & Supp. 1995).

⁸¹ CAL. GOV'T CODE § 8550(a) (Deering 1994 & Supp. 1995) provides in pertinent part:

copters aerially applied Malathion bait in January of 1990.⁸² Immediately following the spraying, various homeless individuals suffered adverse health effects, including nausea, chills, vomiting, fatigue, diarrhea, loss of appetite, shortness of breath, and watering eyes, all of which were symptoms of Malathion poisoning.⁸³ The homeless persons sued the director of California Department of Food and Agriculture in federal court, seeking injunctive relief and an immediate restraining order for the spraying of Malathion. The court in *Talevich v. Voss*⁸⁴ denied relief because plaintiffs failed to prove that their symptoms, which did not result in physical injury, were directly caused by Malathion poisoning.⁸⁵

The Environmental Protection Agency (EPA), which regulates the use of pesticides, approved Malathion to be used in the aerial eradication project.⁸⁶ The authorization to use Malathion was in the form of a special quarantine exemption for use in emergency conditions, pursuant to Section 18 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).⁸⁷ The EPA's quarantine exemption in *Talevich v. Voss*⁸⁸ required that prior to application of Malathion, notification be given to the public, individual property owners be advised of the treatment, and that appropriate precautions be taken. The plaintiffs admitted they had seen a notice posted in a park regarding the Medfly spraying, but the notice stated that Malathion posed "[n]o danger and that its toxicity is approximately the same as laundry detergent."⁸⁹ Further,

The state has long recognized its responsibility to mitigate the effects of natural, manmade, or war-caused emergencies ... To insure that preparations within the state will be adequate to deal with such emergencies, it is hereby found and declared to be necessary: (a) To confer upon the Governor ... the emergency powers provided herein; and to provide for state assistance in the organization and maintenance of the emergency programs of such political subdivisions ...

⁸² *Talevich v. Voss*, 734 F. Supp. 425, 427 (D.D.C. 1990).

⁸³ *Id.* at 428.

⁸⁴ *Id.* at 432.

⁸⁵ *Id.*

⁸⁶ *Id.* at 427.

⁸⁷ 7 U.S.C. § 136, provides in pertinent part: "The Administrator may, at the Administrator's discretion, exempt any Federal or State agency from any provision of the Act . . . if the Administrator determines that emergency conditions exist which require such exemption"

⁸⁸ *Talevich v. Voss*, 734 F. Supp. 425, 428 (D.D.C. 1990).

⁸⁹ *Id.*

the notice stated that, if it was convenient, people might stay indoors to avoid spotting of clothing, but there was no need to leave the area during the spraying.⁹⁰

The notice given by the state in *Talevich* gave the plaintiffs sufficient warning regarding Malathion residue on their clothes, but the question is whether the warning was enough to prevent physical danger. Physicians in the eradication area were given notices which differed from the notices given to the general public. The physicians' notices stated that persons sprayed directly with Malathion could experience symptoms such as throat and eye irritation or chest tightness. The physicians were told that these symptoms would generally clear within two hours after exposure and that no serious or long-term health effects were expected. The physicians' notices further recommended that individuals remain indoors for at least fifteen minutes after the aerial application in order to avoid exposure.⁹¹

The plaintiffs in *Talevich* suffered physical symptoms similar to those listed in the warnings distributed to physicians. Unfortunately, homeless individuals do not always have the option to seek shelter and are generally exposed to a wide variety of conditions, many of which are not conducive to good health. Only one individual plaintiff in *Talevich* sought medical attention after her exposure to Malathion. The individual's medical report showed that a myriad of afflictions plagued her health, including alcohol intoxication, hepatitis and cancer, but the report failed to indicate that she suffered from Malathion poisoning.⁹²

Three months after the spraying in Orange County, Malathion was again applied aerially to infested areas in Los Angeles County.⁹³ Suit was again filed against the manufacturers and distributors of Malathion and various governmental entities and officers including the State of California.⁹⁴ The plaintiff alleged that the defendants were negligent in failing to notify the public of the health risks set forth in the EPA-approved Malathion label. The fourteen-year-old plaintiff in *Macias* went outdoors to cover the family automobile during Malathion spraying "[w]ithout taking any protective measures against personal contact with the

⁹⁰ *Id.*

⁹¹ *Id.* at 431.

⁹² *Id.* at 432.

⁹³ *Macias v. State*, 10 Cal. 4th 844, 848 (1995).

⁹⁴ *Id.* at 849-50.

spray . . ."⁹⁵ Here, the plaintiff was not as fortunate as the plaintiffs in *Talevich* because Macias was rendered legally blind from exposure to Malathion.⁹⁶

The flyers distributed by the state in *Macias* contained the following warning:

NO HEALTH HAZARD:

Malathion is considered one of the safest insecticides in use today. For more than 35 years, it has been widely used by home gardeners. It is used in many U.S. cities to control mosquitoes, and in Europe, it is used by physicians to treat head lice in children. Health authorities agree that, at an extremely low dose, pregnant women have no cause for concern.⁹⁷

After the plaintiff in *Macias* was exposed to the Malathion, his eyes became reddened and painful, and he began to experience deterioration of his vision.⁹⁸ Plaintiff did not realize the connection between his eye irritation and the Malathion spraying, and thus did not attempt to flush his eyes or seek medical attention. By the time the plaintiff consulted a physician, it was too late to prevent permanent injury to his eyes.

In *Macias*, just as in *Talevich*, the plaintiff knew prior to going outdoors that aerial application of Malathion would be taking place during that particular time. However, the State of California once again failed to give the public sufficient warning to protect themselves from personal injury.⁹⁹

The product labeling approved by the EPA in *Macias* stated as follows:

CAUTION

IF SWALLOWED: Drink 1 or 2 glasses of water and induce vomiting . . . Call a physician.

IF ON SKIN: Wash with plenty of water. Call a physician.

IF IN EYES: Flush with plenty of water. Call a physician if irritation persists.

CAUTION: Harmful by swallowing, inhalation or skin contact. Avoid breathing spray mist. Avoid contact with skin. Wash thoroughly after handling.

Change contaminated clothing.¹⁰⁰

⁹⁵ *Id.* at 848-49.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.* at 849.

⁹⁹ *Id.*

¹⁰⁰ *Id.* at 848.

The State's posted notice regarding Malathion contradicted the warning set forth in the EPA-approved label, the former representing to the public that Malathion posed no health risks. The State's warning also failed to alert persons exposed to the spray to wash immediately and consult a physician.¹⁰¹ Had the plaintiff in *Macias* been given the EPA warning, he may have chosen to stay indoors during the spraying, and at a minimum would have known to flush his eyes with water and seek immediate medical attention.¹⁰² The State may have omitted the health hazard warning "[i]n a deliberate effort to allay public anxiety and avoid public opposition to aerial spraying of Malathion over residential areas, perhaps through bureaucratic incompetence or mere inadvertence."¹⁰³ The State jeopardized the eyesight of the plaintiff in *Macias*.¹⁰⁴

The Governor of the State of California was warned of the effects of Malathion spraying prior to the eradication in 1990. California legislators who represented areas being sprayed urged the Governor to halt spraying until there was solid proof that the pesticide was safe.¹⁰⁵ The Assembly Speaker stated, "I'm not sure that it's dangerous. I'm not sure that it's safe. But I am sure that my constituents are extremely frightened. And anxiety can certainly make people sick, if not Malathion."¹⁰⁶ However, the Governor insisted that Malathion posed no health threat.¹⁰⁷

The plaintiff in *Macias* also disputed the necessity of the Governor's emergency declarations, alleging that the State had known of the dangers of the Medfly and failed to deal with the problem.¹⁰⁸ The court held that the State was acting to safeguard the security and property of its citizens¹⁰⁹ and compared the Medfly invasion to threat of rising flood waters.¹¹⁰ Justice Mosk, in writing the minority opinion in *Macias*, stated that the jury could have distinguished "[b]etween the threat of raging flood waters and

¹⁰¹ *Id.* at 849.

¹⁰² *Id.*

¹⁰³ *Id.* at 862 (Mosk, J. dissenting).

¹⁰⁴ *Id.*

¹⁰⁵ Richard C. Paddock, *Legislators' Group Petitions Governor Against Malathion*, L.A. TIMES, February 27, 1990, at A3.

¹⁰⁶ *Id.* (quoting Assemblywoman Sally Tanner).

¹⁰⁷ *Id.*

¹⁰⁸ *Macias v. State*, 10 Cal. 4th 844, 850 (1995).

¹⁰⁹ *Id.* at 857.

¹¹⁰ *Id.* at 862 n. 1 (Mosk, J. dissenting).

ongoing efforts to eradicate a fly."¹¹¹ Since the "[s]praying of Malathion in California in response to Mediterranean fruit fly infestations has continued periodically since 1980 . . . it was not a crisis that demanded split-second decisionmaking."¹¹² The plaintiffs' claims against the State currently remain pending.¹¹³

A. *Manufacturers and Distributors Were Not Liable for the Defective Warning Given During the 1990 Medfly Eradication Program in California*

It is established law that a product manufacturer is required to give sufficient warnings of any dangerous propensities in a product.¹¹⁴ In *Macias*, the plaintiff alleged that because the Malathion manufacturers and distributors knew the State's intended use of Malathion and knew the public had not been sufficiently warned of the dangers involved, they breached their common law duty to warn.¹¹⁵ However, the court in *Macias* held that the manufacturers and distributors owed no duty to the plaintiff to interfere with the State's Medfly project even if they knew the State intended to give insufficient public warning.

Common law doctrines giving rise to a duty to warn are rendered largely superfluous in a state of emergency situation because of the legislative and public policy considerations involved.¹¹⁶ In *Macias* the majority reasoned that had the

¹¹¹ *Id.* The plaintiffs in *Macias* alleged that the State intentionally withheld the required EPA-label for the purpose of supporting political opposition to the medfly eradication program. *Id.* at 850.

¹¹² *Id.* at 862.

¹¹³ The State was not a party to the appeal in *Macias*. Plaintiffs' action against the State remains pending before the court. *Id.* at 852 n. 7.

¹¹⁴ *Tingly v. E.F. Houghton & Co.*, 30 Cal. 2d 97, 102 (1947).

¹¹⁵ *Macias v. State*, 10 Cal. 4th 844, 850 (1995).

¹¹⁶ The court in *Macias* noted two common law doctrines which are familiar maxims of product liability law: the "sophisticated purchaser" and "bulk supplier" defenses. *Id.* at 853.

Under the sophisticated purchaser defense, manufacturers are not liable for injuries caused by intermediate purchasers' failure to warn when it relies on the purchasing chains to relay warnings to the end users. The manufacturer fulfills its obligation to warn by making sure that the purchaser knows or should know of any potential dangers associated with the product. Kenneth M. Willner, Note, *Failures to Warn and the Sophisticated User Defense*, 74 Va. L. Rev. 579, 580 (1988).

According to the bulk supplier defense, a manufacturer of products sold in bulk is absolved of any future liabilities at such time as it provides adequate warning to the distributors because they are the ones who subsequently package,

manufacturers and distributors issued a warning different from that of the State, they would have been "second-guessing" the State and interfering with its efforts to deal with an emergency situation.¹¹⁷ The eradication program's ultimate success was dependent upon the public's confidence and trust in the State's notifications to them. If the public also received notices from the manufacturers and distributors, the project might have been compromised, jeopardizing the lives and property of the citizens of California.¹¹⁸

Numerous courts have turned to the factors in section 388 of the Restatement Second of Torts in evaluating the scope of a manufacturers' common law duty to warn.¹¹⁹ The manufacturers in *Macias* gave the State all the necessary information relating to the product's use, but, under section 388 this is not always sufficient to relieve the supplier from liability.¹²⁰ The manufacturers' method of informing the State must have been one which would give a reasonable assurance that the information would reach those whose safety depends on their having it. If the manufacturers in *Macias* knew that the State did not intend to give sufficient warning to the public, then they failed to use reasonable care to inform the public of the dangers of exposure to Malathion.

There is also persuasive case authority holding that manufacturers, notwithstanding the presence of a governmental intermediary with independent statutory responsibilities, have a continu-

label and market the product. *Groll v. Shell Oil Co.*, 148 Cal. App. 3d 444, 449 (1983).

¹¹⁷ *Macias v. State*, 10 Cal. 4th 844, 859 (1995).

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 862 (Mosk, J., dissenting).

Restatement Second of Torts, Section 388 provides:

One who supplies directly or through a third person a chattel for another to use is subject to liability to those whom the supplier should expect to use the chattel with the consent of the other or to be endangered by its probable use, for

physical harm caused by the use of the chattel in the manner for which and by a person for whose use it is supplied, if the supplier

(a) knows or has reason to know that the chattel is or is likely to be dangerous for the use for which it is supplied, and

(b) has no reason to believe that those for whose use the chattel is supplied will realize its dangerous condition, and

(c) fails to exercise reasonable care to inform them of its dangerous condition or of the facts which make it likely to be dangerous.

¹²⁰ *Macias v. State*, 10 Cal. 4th 844, 862 (1995) (Mosk, J., dissenting).

ing duty to the public.¹²¹ These cases hold that a manufacturer's common law duty is not displaced by the existence of a governmental duty to warn. No previous cases have found that a manufacturer's duty to warn is discharged simply because a governmental entity has declared a state of emergency.¹²²

Knowing that the State had failed to give adequate warning, the manufacturers and distributors had many alternatives besides ignoring the situation. Initially, they could have contacted State officials to ensure that the officials were informed of the situation and hence aware of the need to disseminate different or additional warnings.¹²³ In the alternative, the manufacturers and distributors could have supplied the State with a pre-printed notice containing accurate product warnings, or contracted with an intermediate purchaser to provide accurate warnings to subsequent users. At a minimum, the manufacturers and distributors could have held a press conference to inform the public to stay indoors during the spraying, or in the alternative, to wash the Malathion spray from exposed eyes and skin and to consult a physician if irritation persisted.¹²⁴

The citizens of California depend on the state to have a well-thought, timely program to prevent or, at minimum, control pest infestation. Costly litigation could have been prevented had California made sure that citizens were given the proper warning regarding exposure to toxic chemicals during the Medfly spraying.

VII. HEALTH AND ANIMAL HAZARDS FROM ANT STINGS

Proper state control efforts are also needed to prevent personal injury caused by the fire ant sting. Unlike the Medfly which does not sting or bite,¹²⁵ fire ants are known for their pain-inflicting stings. On the whole, fire ants are considered by the United States Department of Health, Education, and Welfare to present a low health hazard to human beings.¹²⁶ However, those who have been bitten by the tiny creatures realize that fire ants may have an ad-

¹²¹ *Id.* at 863.

¹²² *Id.*

¹²³ *Id.* at 864.

¹²⁴ *Id.*

¹²⁵ 7 DEBBIE G. CALVO, ISSUES IN FOOD SAFETY, MEDFLY THREAT PROMPTS AGGRESSIVE ERADICATION PROGRAM 1 (1994).

¹²⁶ *Environmental Defense Fund v. Hardin*, 325 F. Supp. 1401, 1404 (D.D.C. 1971).

verse effect on human health, even if just temporary. The sting from the ant's bite is painful and the pustule which results from the bite has been known to cause secondary infections.¹²⁷

People most vulnerable to the fire ant's bite are those who are helpless in defending themselves, e.g the elderly.¹²⁸ The fire ants find their way into the homes of the elderly and have been known to sting a single victim over a thousand times. Other vulnerable victims of the fire ant are infants. In *Pearson v. State*,¹²⁹ the parents of an infant were charged with child abuse and child endangerment when their four-day-old baby was attacked by fire ants in Texas. The baby had been stung over a thousand times. Fire ants were present in the child's ear canals, mouth and also in its trachea. The ants had eaten the tips from the infants fingers, toes and earlobes, and there were also furrows eaten out of the child's scalp.¹³⁰

Fire ants are very aggressive and usually attack in groups. Once fire ants find a victim, they are capable of recruiting more workers from the mound to help in their attack.¹³¹ The ant's recruiting is done in one of two ways: the fire ant will either produce a chemical which attracts other fire ants or it will physically go back to the ant mound and bring the other ants back with it.¹³²

Some people have been known to have an allergic reaction to ant venom resulting in serious illness or even death. The infant in *Pearson* did not suffer an allergic reaction; he went into shock

¹²⁷ *Id.*

¹²⁸ *Pearson v. State*, 601 So. 2d 1119, 1120 (Ala. App. 1992).

¹²⁹ *Pearson v. State*, 601 So. 2d 1119, 1120 (Ala. App. 1992).

¹³⁰ The mother in *Pearson* gave her four-day-old baby a bottle at 10:00 p.m. and then put him and the older children to bed in a room which was approximately six feet down the hall from her own bedroom. The mother then took her prescribed medication, which was labeled with a warning that the medication could cause drowsiness, and then she and her husband went to sleep. When the mother awoke at 7:00 a.m. the next morning and went to check on the baby, she found him covered with fire ants. When the parents arrived at the hospital with the baby, he was not breathing, had no pulse and still had red ants crawling all over him. The mother and father were indicted for child abuse and then convicted of endangering the welfare of a child. The parent's convictions were reversed on appeal because the State failed to present sufficient evidence in establishing guilt beyond a reasonable doubt. The *Pearson* court held that the parent's conduct was not the cause-in-fact of the child's injury because an attack by thousands of ants on a sleeping infant is considered to be an abnormal, unforeseen, intervening cause. *Id.* at 1122-28.

¹³¹ *Id.* at 1122.

¹³² *Id.*

from the thousand stings on his body.¹³³

Even though fire ant attacks of infants and elderly persons are rare, the possibility of fire ants making their way to California is not something that the state should take lightly. The State of California needs to protect its citizens before it is necessary to declare a state of emergency, as was the case with the Medfly. Fire ants present a health hazard to humans and if necessary, the Legislature should take precautions against an invasion of this pest.

Humans are not the only ones who face the dreadful sting of the fire ants. Newborn calves are affected when they are born near fire ant mounds. Without human assistance, the calves can not avoid the painful and sometimes deadly sting of fire ants.¹³⁴ Fire ants will attack calves shortly after birth, causing temporary blindness by stinging their eyes. The fire ants also sting the soft tissues around the nostrils and genitals of newborn calves. Calves may die as a result of being stung by fire ants, especially calves born with health problems.¹³⁵

Fire ants will also attack chickens, foraging on broken eggs. Blemishes which result from the fire ant sting may reduce the quality of poultry. In barns and feedlots, fire ants have been known to cause similar problems.¹³⁶

Some cattle and poultry owners depend on healthy animals for their livelihood. If the fire ant finds its way to California, animals could die or suffer damage. Further, individual pet owners who keep pets outdoors could be faced with the expense of veterinary bills or the unfortunate reality of pet fatality from fire ant stings. It is imperative that the State of California anticipate and establish a program to prevent fire ant infestation.

VIII. WHAT CAN WE LEARN FROM THE MEDFLY AND THE FIRE ANT?

As evidenced in *Macias* and *Televich*, a state must be prepared to deal with a pest invasion before the pests become so infested that the state is forced to declare a state of emergency. The governor of California was incorrect in his insistence that Malathion was not a threat to the public's health. Aerial application can be dangerous to human health, especially if the public is not given sufficient warning of its dangers. Had California not waited until

¹³³ *Id.* at 1121-22.

¹³⁴ DRESS & VINSON, *supra* note 16, at 8.

¹³⁵ DRESS & VINSON, *supra* note 16, at 8.

¹³⁶ DRESS & VINSON, *supra* note 16, at 9.

the Medfly infestation became a state of emergency, perhaps it would have found a safer alternative to Malathion or at least have given careful consideration to the warnings.

Texas ultimately found that eradication was not feasible in areas where the fire ant was fully infested. However, this was not proclaimed until over 30 years after the initial program to combat the fire ant was begun. If California is faced with an infestation of fire ants, a careful balancing of the impact of the fire ant must be given a great deal of consideration. Prior to using chemicals to control the fire ant, it is imperative to establish whether the cost of control is less than the potential economic loss fire ants may cause.¹³⁷ Also, the State should not wait until millions of dollars are spent to keep the fire ant under control from a resultant state of emergency.

CONCLUSION

The cost of the Medfly eradication program in Orange, Los Angeles and San Bernardino Counties alone was estimated to be \$27 million.¹³⁸ However, the \$27 million does not include the expenses of individual property owners or personal injury caused by the State's failure to give sufficient warning as to the effect of Malathion spraying. In contrast, without the eradication program, the potential damage of the Medfly infestation was estimated to be \$200 million per year.¹³⁹

Because of the devastating financial and health effects fire ants could have on California, the state must be prepared to deal with the fire ant infestation before it occurs. It is impossible to say how the state would handle a fire ant infestation, but hopefully it will not become California's next "state of emergency." If it does, the future of the economy may be in the hands of the governor entrusted not to repeat the mistakes of the past.

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¹³⁷ DRESS & VINSON, *supra* note 16, at 9.

¹³⁸ *Talevich v. Voss*, 734 F. Supp. 425, 428 (D.D.C. 1990).

¹³⁹ *Id.*

