RED IMPORTED FIRE ANT

Solenopsis invicta

Red Imported Fire Ant

The Situation: The Red Imported Fire Ant (RIFA, for short) is a major economic pest in the southeastern United States. It originates in lowland areas of South America, primarily Brazil and Argentina. Since its first documented interception in 1984 at a border station in California, periodic outbreaks have occurred in several counties. In the past these outbreaks were limited to private properties amenable to rapid eradication efforts. Commerce from infested areas in the East will continue to seed these ants in California.

Damage: These ants pose an immediate threat to the area's economy because they require a quarantine of nursery products. In quarantined areas, plants cannot be shipped without labor-intensive and expensive drenching of all plants with pesticides. Their stinging behavior can be hazardous to field workers as the sting is noxious and produces a pustule on the skin that can scar if infected. Newborn livestock and poultry are vulnerable to attack. They can clog irrigation lines and short-circuit electrical systems. In natural ecosystems they interfere with and displace native wildlife.

Economic Impact: The farm gate values for woody ornamental production nurseries in Orange, Los Angeles and San Diego counties in 1997 was $439 million, making it one of the major crops in these areas. This industry faces the immediate impact of quarantine regulations. There will be immediate expenses involving the application of pesticides to all plants in quarantined areas. In Texas, over $1.1 billion is spent annually for fire ant pesticides, and $872 million of that is for lawns.

Distribution: In 1997 fire ants arrived with honeybees from Texas and infested almond orchards in Kern and Fresno counties. In 1998 the ants were detected in an area covering at least 50 square miles of Orange County, leading to a quarantine of the entire county. Other outbreaks have subsequently been discovered in western Riverside county (especially the Coachella Valley), and the counties of Los Angeles, San Diego, Santa Barbara, and Sacramento. Additional infested almond orchards have been found in Madera, Merced, and Stanislaus counties. Some of these infestations may have been present for 10 years. RIFA have not been found in non-irrigated regions except in proximity to lakes (Lake Elsinore), and in natural wetlands and creeks in southern Orange Co. An incipient infestation has been found near a small community at an elevation of 2,500 ft in the Cleveland National Forest in Riverside County.

Areas where red imported fire ants have been found in California

Research: Cooperative Extension at the University of California, Riverside, is educating homeowners, pest control operators, growers, and other affected parties, about the biology and control of fire ants. Research is addressing the potential spread of this pest with respect to climatic factors and competition with native ant species. An important research question is how far fire ants can fly in the dry desert climate of southern California. We are preparing to do flight mill tests to answer this question. This information is vital in deciding on the size of quarantine zones around infestations. We have also tested new pesticides for \e against the fire ant.

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