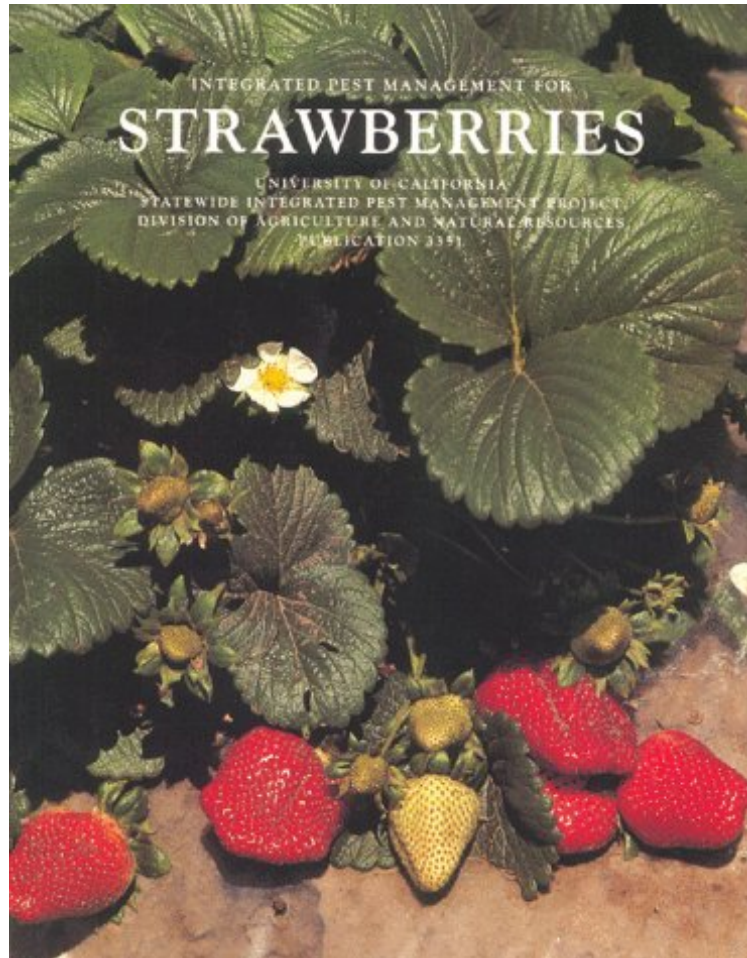


[Free] Integrated Pest Management for Strawberries/3351 (Publication / University of California Statewide Integrated Pest Management Project, Division of Agriculture and Natural Resources)

Integrated Pest Management for Strawberries/3351 (Publication / University of California Statewide Integrated Pest Management Project, Division of Agriculture and Natural Resources)

Larry L. Strand

*audiobook / *ebooks / Download PDF / ePub / DOC*



 Download

 Read Online

#7087127 in Books 1994-02Original language:EnglishPDF # 1 10.75 x 8.25 x .50l, #File Name: 1879906082142 pages | File size: 51.Mb

Larry L. Strand : Integrated Pest Management for Strawberries/3351 (Publication / University of California Statewide Integrated Pest Management Project, Division of Agriculture and Natural Resources) before purchasing it in order to gage whether or not it would be worth my time, and all praised Integrated Pest Management for Strawberries/3351 (Publication / University of California Statewide Integrated Pest Management Project, Division of Agriculture and Natural Resources):

The most complete guide available for strawberry production and pest management. Includes more than 150 excellent color photographs, 60 line drawings, and the research of more than 60 University of California scientists and Extension specialists. This guide will help you identify over 100 different pest problems in strawberries including insects, mites, diseases, weeds, nematodes and vertebrates.. An invaluable resource for growers and pest control professionals. A special chapter for the home gardener addresses home strawberry production.

" . . .the most complete guide now available for strawberry production and pest management. . . Even home gardeners will find the book useful . . ." -- North American Strawberry Growers Association Excerpt. Reprinted by permission. All rights reserved.

Fruit Diseases Fruit diseases are caused by pathogens that survive in or on the soil and infect fruit that come in contact with the soil surface or water that splashes from it. In addition, several pathogens that cause foliar or crown diseases can affect fruit. Polyethylene mulch and drip irrigation limit the severity of fruit diseases by reducing contact of fruit with the soil and water. Overhead irrigation can cause physical damage to ripening fruit and creates conditions favorable for fruit infection. Careful harvesting and postharvest handling practices are critical for keeping losses to a minimum. Field-applied fungicides are necessary to prevent serious loss whenever weather conditions favor gray mold.

Gray Mold (Botrytis Rot) *Botrytis cinerea* Gray mold, also referred to as "Botrytis rot," is the most common and serious disease of strawberry fruit in California. It occurs in all growing areas, causing losses of fruit both in the field and after harvest. The pathogen also attacks flowers when conditions are favorable. Gray mold is managed by using mulch, proper irrigation techniques, and carefully timed fungicide sprays when needed. Postharvest losses are reduced by careful handling to avoid injury and remove diseased fruit, rapid cooling of fruit after harvest to limit disease development, and use of low holding temperatures, possibly with the addition of carbon dioxide during short-term transport.

Symptoms and Damage Gray mold may appear at any stage of fruit development from flowering through marketing. Lesions usually are seen first near the stem end or on the side of the fruit touching other decayed fruit, soil, or standing water. Affected areas turn pale or light brown at first, and may spread over part or all of the fruit surface. Diseased tissue is covered with a velvety gray growth when the fungus begins to produce spores. If the humidity is very high, berries become cottony white with fungus mycelium. Decayed fruit remain fairly firm and contents do not leak. The velvety appearance of decayed tissue and the absence of liquid leaking from the fruit distinguish gray mold from *Rhizopus* and other fruit rots. The gray mold pathogen attacks blossoms, causing a blossom blight, if prolonged periods of wet weather occur during bloom. Affected flower parts turn brown, entire flowers may be killed, and the brown discoloration may extend into the flower stem. The characteristic gray growth sometimes develops on the brown areas. Gray mold that develops in the field reduces yield. Decay after harvest reduces the quantity of marketable fruit, can spread rapidly from diseased to surrounding healthy fruit, and may cause rejection of entire loads at the market destination.

Seasonal Development The fungus that causes gray mold and blossom blight, *Botrytis cinerea*, is widespread, infecting dead or dying plant parts and causing decay on many crops. In the absence of hosts, the fungus can survive as small black resting structures called sclerotia or in infected plant debris. When it is humid and cool, spores are produced on moldy fruit, other hosts, plant debris or sclerotia. They are spread by wind and splashing water. During flowering, germinating spores may infect flowers, causing blossom blight or invading developing fruit. Moisture must be present on the surface of flowers for spores to germinate and infect. Young fruit may decay soon after infection or the fungus may remain dormant until later, causing fruit decay anytime before or after harvest. Spores produced on moldy blossoms or fruit continue to infect other fruit throughout the season. If fruit remains wet for at least 2 hours, they can be infected directly by germinating spores. The incidence of fruit infection increases with the length of time fruit remain wet. Therefore, gray mold is most damaging when rain occurs during fruit production. Fruit in contact with damp soil may be infected anytime during the season regardless of weather conditions.

Managing Strawberry Pests in the Home Garden Most of the pest problems encountered in commercial strawberries also may occur in the home garden. However, their relative importance and management practices used to control them differ in several ways. Higher pest populations usually can be tolerated in home garden strawberries because yields do not have to be profitable. This means that some serious pests of commercial strawberries such as spider mites and lygus bugs, often are minor problems or of no concern in the garden. It also means that treatment with pesticide seldom is needed and when necessary, less toxic materials such as insecticidal soap or sulfur usually give acceptable control. Soil solarization is more likely to provide satisfactory control of soilborne pest problems. On the other hand, garden size and environment favor some pest problems that are minor or nonexistent in commercial fields. For example, sowbugs, slugs, and snails, which usually are not problems for the commercial strawberry grower, often are major pests in the home garden. Birds, usually a minor problem for commercial growers, are one of the most damaging pests in the garden. Basic cultural practices for strawberries in the home garden are the same as they are for the commercial grower, but there are some differences. Home garden plantings usually are maintained for at least two or three seasons, rather than the single season common in commercial plantings. This gives some pests such as *Verticillium*, *Phytophthora*, viruses, and root weevils more chance to build up to damaging levels. Soilborne pests (e.g. *Verticillium*, *Phytophthora*) are especially likely to become a problem

because home gardens are not fumigated.