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Strawberry Anthracnose Ripe Fruit Rot and Management Recommendations

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Anthracnose symptoms on ripe strawberry fruit include typical sunken and round lesions with an orange discoloration within the lesion (see figure) and brown spots on green fruit. The pathogen is named Colletotrichum acutatum. If symptoms appear to be distributed throughout the planting, this could suggest widespread distribution of the pathogen. This is discouraging because rouging of infected plants does not appear to be a viable option for control. If warm and wet weather (especially with wind driven rains) occurs, then managing the disease will be difficult. If the weather cooperates, there is good potential to limit losses due to anthracnose. Recommendations for Anthracnose Management:

1. If the problem seems to be associated with hot spots in the field, remove and destroy (bury or burn) infected plants and surrounding plants (5 to 10 foot radius).
2. Avoid any overhead irrigation (e.g. for evaporative cooling) and do not over water or over fertilize.
3. Always pick the infested area last and do not let personnel or equipment move from an infested area to clean areas in order to limit spread of the pathogen
4. Do not work in planting when wet.
5. Although the economics are not available, it may be practical to pick and remove infected berries out of the field in order to reduce the amount of inoculum. However, be aware that this pathogen colonizes leaves and other green tissue without showing symptoms. Therefore, if the pathogen is on the fruit, it will also be on the plant tissue and it will be impossible to remove entirely. Removing infected fruit should help to reduce disease pressure.
6. Implement a vigilant Quadris + Captan fungicide program. If Quadris or Captan have not been used to date and if diseased fruit is present, it may take 14 - 20 days before a response to fungicide use is observed. Quadris and Captan have performed well in our fungicide trials and provide a fighting chance to limit crop losses. In our research we used a maximum rate recommendation of 12.4 fl oz/acre but the new label allows for 15.4 fl oz/acre. The 12.4 fl oz rate has performed well in our trials and we do not have data to advise about the benefits of higher rates.

The following schedule is suggested: In infested fields, implement a Quadris + Captan tank mix spray ASAP. Consider a second application in one week. Then apply Captan alone, then the tank mix again, then Captan alone. Do not apply more than two sequential sprays of Quadris and no more than 4 times per season (see label attached {Quadris.PDF}). Under lower disease pressure, include Quadris (tank mixed with Captan) every 14 days and rotate with Captan (as recommended in Florida; in our trials, we see a benefit with the Quadris + Captan tank mix).

The use of Quadris and Captan ensure continuous coverage for anthracnose control and the Captan offers gray mold control. Quadris is not very effective against gray mold (Botrytis). In fields with potential for heavy gray mold pressure, include Elevate or Switch with the Captan sprays in rotation with the Quadris+Captan sprays. Switch may offer a limited amount of anthracnose control. Elevate is strictly a botryticide. Oxidate is a product heavily promoted for quick control. Regretfully, there is very limited data publicly available. In discussions with plant pathologists in other states who have conducted tests on other crops, results have not been highly encouraging. At this time, reliance on Oxidate alone is likely inferior to a program that would include Quadris.

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