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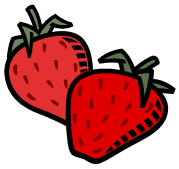
STRAWBERRY UPDATE



March 9, 2011

Weather reports indicate the first 2 weeks of February were the coldest in about 80 years and the last 2 weeks of February were the second warmest ever. By all accounts it was a cold winter. A typical year for us will produce about 500 chilling hours (temperature hours under 45˚ F) but this winter we have already had over 1000 chilling hours.

The strawberry crop has spent a lot of time under the frost protection covering this winter. I would have expected to see lots of disease issues but the crop looks remarkably good for the amount of time it was covered.

Dr. Ferrin and I made visits last week and made some of the following observations.

Gray Mold (Botrytis)

We saw less gray mold than we expected in general, however it is a disease that under the right weather conditions can get away from you fast. High humidity from fog and rain are the drivers that make it go. The recent rain events leave a lot of damaged berries with the right conditions to have a gray mold explosion. As soon as it is dry enough to get back in the field with a spray, I would include gray mold prevention/control in my spray application.

On our visit we saw farms that needed to treat (prior to the rain recent events) for gray mold to protect the big spring bloom. Where feasible pick off the infected fruit and carry it out of the field. There are millions of spores on one of those moldy strawberries. The disease is spread by wind and survives on decaying plant tissues as well as the strawberries.

Your best fungicide controls for gray mold would include Captevate, Elevate, Pristine and Switch.

Powdery Mildew

We saw some powdery mildew but not a lot. Some symptoms to look for are the cupping or rolling of the leaves. You will see a white powdery growth on the undersurface of the infected leaf and in severe cases it will be evident on the fruit. Your best fungicides for powdery mildew control would be Procure, Quintec or Rally.

Spider Mites

Most farmers are reporting some outbreaks of spider mites. Be on the guard for spider mites.

Dr. Hummel says that it is common for mite infestations to start along field margins close to or adjacent to areas with maturing vegetable crops or weedy areas.

Develop a good monitoring plan which includes sampling field edges, middles and field corners. Inspect the underside of leaflets. Choose fully developed leaflets from the middle tier, and avoid leaves that are too young or too old. Select one leaflet per plant and inspect 10 to 20 leaflets. Treatments are justified when an average of five or more mites are present per leaflet.

Inspect for mites at least once per week in this warm weather, up until about 2 weeks prior to the end of picking. Recommended miticides include Agri-Mek, Acramite, and Vendex.

Strawberry Dried Calyx Disorder - SDCD

On our recent visit a reoccurring question came up, what causes the calyxes of some strawberry varieties to turn brown?

As most of you know this is not a new phenomenon. We have seen this for years and have not been able to detect any primary pathogens from the tissue samples.

We have noted through the years that it does seem to be more prevalent in some varieties and it seems to be at certain times of the year.

There have been several articles written about this condition where it has been detected in California, Spain and Florida. The researchers in Florida have even given it the name of Strawberry Dried Calyx Disorder, SDCD. I have summarized their findings.

California

In California, it was noted that the cultivar, 'Camino Real', had a higher incidence of SDCD. In order to determine if it was caused by a fungus, a project was set up to compare the incidence of SDCD from those plants on a regimented fungicide program and those plants that received no fungicides. There were no differences observed for percent dry calyx among the fungicide treatments and the controls. They concluded that the dry calyx in Camino Real was not likely the result of fungal infection.

Florida

In Florida, field observations for 3 seasons indicated that the cultivars 'Strawberry Festival', 'Camino Real' and 'Palomar' showed the SDCD earlier and more severely than others.

The researchers observed SDCD in fields within 10 days after a freeze or after nights with very low temperatures and where aggressive fertilization programs occurred without good drainage.

Spain

In Spain strawberries were grown in 3 types of protective structures: low tunnels – 9.5', high tunnels – 11' and greenhouses -16'. Strawberries in low tunnels had the lowest number of plants with SDCD (8.9%), followed by those in high tunnels (14.5%), and those in greenhouses (23.2%). It appears that SDCD problems increase as the temperature decreased. Keeping plants warmer, by using lower ceiling heights, reduced the incidence of SDCD.

Summary

SDCD does not appear to be disease related. While there is no conclusive evidence, the incidence of SDCD seems to be a product of stressful environmental conditions (such as cold temperatures) and susceptible cultivars. Florida researchers indicate that reducing fertilization rates during the days before an expected freeze while maintaining regular irrigation programs appear to help to minimize the incidence of SDCD.

The warmer nights of spring should eliminate this problem.

Sincerely,

Kenneth W. Sharpe
County Agent
Livingston Parish