

PLANT & PEST ADVISORY

CRANBERRY EDITION \$1.50

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INSIDE

Cranberry Disease Management 1
Farm Safety Briefs 2

Cranberry Disease Management

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Fairy ring

This disease is caused by a fungus similar to the fungi causing **upright dieback** and **fruit rot**. It is frequently observed in mature cranberry beds in New Jersey and Massachusetts. The causal fungus is not a member of the basidiomycetes, a group of fungi that includes the majority of the mushroom forming species. Mushrooms of the fungus were reported in the 1930's and 1940's, however have not been seen since that time. Since then we have isolated a different fungus that is more similar to the upright die back fungus. Based on research conducted in our lab, we estimate that the disease causes approximately a 50% reduction in yield within the ring over the average yield of healthy parts of the bed. For example, in a bed yielding 200 bbl/acre, a ring 60 feet in diameter would result in a 5 bbl loss. This can be used to estimate the value of applications.

Control

There is currently one approach for direct chemical control of this disease. However, it is my feeling that the recommendation for Ferbam (see below) is a very costly method that may not provide a sufficient return to justify its use. New recommendations are still under development but none are currently approved under the current labels.

Carbamate WDG can be applied at a rate of 1 gallon per square foot and a concentration of 9 lb/100 gal. One application per year is permitted and it should be made in the 2-month window between June 1 and July 31. Applications should *not* be made after July 31.

To treat a fairy ring, measure 3 ft. outward from the edge of the ring (area of dead vines) and 2 ft. in from the edge. Mark this area with flags and treat the entire area with the carbamate solution.

The amount of material needed to treat a diseased site should be calculated before the application is made. To determine this, calculate the area of the ring plus the 3-ft. beyond the edge of dead vines. Subtract the area not to be treated within the ring from the total area.

An interesting side effect that has been repeatedly reported in association with carbamate applications is that vines appear significantly greener in treated areas. In addition, those areas appear to show reduced bloom. To date we have assumed that this is the result of a "fertilizer effect" due to the carbamate. The treatments are still fairly recent and we are unsure how long the vines take to recover from this treatment.

See Fairy ring on page 2

Farm Safety Briefs

Raymond J. Samulis, Burlington County Agricultural Agent

Farm Safety - Money in Your Pocket!

As with many long-term programs like farm safety, it is sometimes difficult to determine exactly how much progress occurs in making farming safer. While it is easy to see the positive impact fewer accidents in your operation can have in human terms, seeing it from a financial perspective is harder to do. Cornell Cooperative Extension has just reported on a long-term training program entitled AHAT or Agricultural Hazard Abatement and Training. The program had many parts to it including farm safety audits, training meetings, and follow up evaluations. More than 575 farm employees participated in the training portion of the program and attended regularly scheduled safety sessions. When all was said and done, New York farmers averaged a 27% decrease in their workman's compensation claims as a result of this program.

The study also showed that as a result of the training program, 80% of the Power Take Off shafts were not properly fixed or contained the necessary shielding devices. Farmers who participated in the program received a 10% rebate on their workman's compensation premiums which saved the average farmer \$1,089. It's easier to see the benefits of effective farm safety when you can show dollars in the farmer's pocket. With New Jersey being the "king" of insurance premiums of all different types, a program such as New York's makes sense both figuratively and literally.

Power Take-Off Dangers

Power Take-Offs (PTO) are an important and necessary piece of equipment on modern farm machinery. Unfortunately, in many instances, the protective covering is damaged or worse yet, totally removed. Sometimes this situation is due to damage, other times it is the result of intentionally disconnecting it to allegedly save time and make the implements easier to attach. These protective devices were placed on the tractor for a definite purpose, and not simply because of some obscure law that has nothing to do with everyday farming.

On outward appearance, the shafts turn rather slowly at 540 rpm's compared to the 20,000 or more rpm's that a jet turbine or even a turbo tractor turns. But with a little calculation, even the slow 540 rpm's translates to 13.1 feet per second. Coupled with the tremendous torque behind the shaft, you can easily see why many PTO accidents cause serious injury, and oftentimes literally rip the clothes off a person. In the latter case it is actually better to have thin, flimsy clothing, rather than durable fabric like denim, which does not tear easily. I once

heard a heart-wrenching story from a farm wife in upstate New York, who had to use a butcher knife to cut her husband out he was so entangled. Since PTO's are a needed item on the farm, they are, most likely, here to stay.

Let's look at some ways we can safely use PTO equipment. Be sure to turn off PTO shafts when you dismount the tractor. This is common sense, but sometimes not followed. Make sure that all safety decals and shields are in place. Do not wear loose clothing, which can easily be entangled in the shaft. Be careful not to step over moving shafts, rather, walk around the tractor. Keep children away from PTO's and other dangerous farm equipment. Lastly, it is important to make sure that any attached equipment or irrigation pumps be properly aligned at the same angle as the PTO shaft.

Remember, hazardous equipment can be used safely when used with the proper safety precautions.

Farm Safety on RCE Web

Check out Rutgers Cooperative Extension's new Farm Safety Web Site at <http://www.rce.rutgers.edu/farmsafety/>. Available on the site is information on events and training; publications, including factsheets and newsletters; and web resources with links to other information on safety and worker protection. Some of these resources are provided in English as well as Spanish since English is a second language for such a high percentage of New Jersey's agricultural workers. □

Fairy ring from page 1

Replanting

Maintaining the genetic purity of a bed is of concern to growers who may want to rake vines for replanting or re-sale. Also, beds with one cultivar or genotype are likely to have a more predictable bloom and will be easier to manage fruit rot. Based on preliminary evidence it appears that "stand opening" diseases such as fairy ring and root rot or even root insects can have an effect on the genetic composition of vines in a bed. The mechanism may be due to direct competition of "invading vines" which arise from a seed bank left in the bog from previous seasons. If this were the case, cultivars such as Ben Lear would be more susceptible since they are generally poor vegetative competitors. To insure against this, growers who experience these types of dieback should consider replanting with the appropriate cultivar rather than allowing the vines to simply grow or fill in from the edges. □

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