

August 2, 2013

## SCOUT FOR SOUTHERN RUST

Southern rust has been confirmed in samples submitted to the UNL Plant and Pest Diagnostic Clinic from several counties in south central and southeast Nebraska. UNL has received samples from Gage, Fillmore and Thayer counties with confirmation. These samples were from fields that had low incidence of disease at this time. If we return to warm temperatures and high humidity this may promote development and spread of the disease and something we need to keep a close watch on.

Rust diseases produce large amounts of spores that can be easily moved by wind for long distances. Having a history of southern rust in corn does not have any impact on disease development now, because this pathogen does NOT overwinter in infected residue. The spores must be carried into the area from southern or western locations by winds from diseased areas. At this time, southern rust has not been confirmed in either Kansas or Missouri corn fields. If the disease continues to spread and worsen in Nebraska, those fields planted later are at higher risk for disease and potentially severe yield impacts. We recommend scouting fields, especially those at higher risk, such as later planted fields, in southern Nebraska counties.

Compared to common rust, which is not as destructive, southern rust spore production is usually limited to the upper leaf surface and tends to be tan/orange in color. Any fungicide applied over 21 days ago on corn would not affect disease development in August and September. Be careful in sweet corn patches that are planted in field corn fields. Fungicides have a harvest restriction that go with them. For example, Stratego fungicide has a 14 day delay harvest restriction on sweet corn. For more information, go to CropWatch newsletter at: <http://cropwatch.unl.edu/>

## IMPORTANCE OF POLLINATORS

I do not think people really understand the importance of bees to our world and food chain. Last week I had a call on cucumbers not producing but the flowers were all there. Many plants rely greatly on bees for cross pollination including tomatoes, eggplant, beans, peas, summer squash, peppers, melons, apples, cucumbers, peaches and pears. Causes of the pollination problems, besides the decline of our native honey bee populations, can be the use of Insecticides.

Homeowners must read and follow the label and limit the use of insecticides. Overhead watering in mornings and evenings when bees are more active could be part of the problem. Consider planting a pollinator garden area or hand-pollinate the plants. Learning how to keep and attract pollinators is important and a lot less labor intensive than hand pollination!

About 10 years ago, we made artificial habitats in 4-H for tube nesting bees as a project at 4-H Camp Jefferson about 10 years ago. This would be for species like mason bees, orchard bees or leafcutter bees that do not make hives but seek out tubes or holes to nest in. You can make a bee box for your garden for these species out of an inexpensive block of wood. To see an example of how to do this, go to <http://tinyurl.com/ndzdgmv>



Imperfect fruits and vegetables are better than no fruits and vegetables. Many insecticides kill all insects, both bad and good. Do not use insecticides on food plants that rely on pollinators. Instead, try using bug controls, such as predatory insects or bacteria that are specific to the bad bugs that are causing the damage to your garden. Or, simply accept that a small portion of your crops will be lost to insect damage, which is a small price to pay in exchange for getting any fruit at all.

#### DON'T USE OVERHEAD WATERING

Overhead watering is when you use a sprinkler to water your garden. If you water your garden like this, especially if you water in the morning and evening when insect pollinators are most active, this can create the same sort of conditions as too much rain which will keep pollinators away. Do not use overhead watering on food plants that rely on pollinators. Instead, use drip watering that happens at the base of the plant. Not only will you get more pollinators in the garden, but your plants will absorb more of the water.

#### PLANT A POLLINATOR GARDEN

Planting a pollinator garden will attract pollinators to your yard and while they are in the pollinator garden, they will also visit the plants in your vegetable garden. You can find directions for planting a pollinator garden here.

#### HAND POLLINATE

If Mother Nature is sabotaging your insect pollination with too much rain or too much wind or if you are gardening in a location pollinators can't get to, like a high rise, a greenhouse or indoors, you can hand pollinate plants that need pollinators. Simply take a small paintbrush and swirl it inside a flower and then, much like a normal insect pollinator, move from flower to flower, gently swirling the brush inside the flowers. This process is a little tedious but worth the time if natural pollinators are not available.

Randy Pryor, Extension Educator

University of Nebraska-Lincoln Extension in Saline County • 306 West 3<sup>rd</sup> Street, Wilber, NE 68465

Phone (402) 821-2151 • Fax (402) 821-3398 • e-mail: [randy.pryor@unl.edu](mailto:randy.pryor@unl.edu)