



Ag & Hort Update



August 2008

July has been very busy; it seems like every year the summer flies by between July and August. We enjoyed another great fair, everybody had a good time although the weather was hot, but it wouldn't have been fair week without hot and humid weather. I want to thank everyone who attended the fair or livestock auction.

Now that July is coming to a close, our attention is focused on the month of August. August is the time when producers will either make it or break it with their crops. Corn and Soybean fields are in that critical time frame when they are most susceptible to wind, hail, disease or insect damage. Several corn fields are tasseled and starting to silk. This is a very important time in the crop's life; the next two months are very critical as the grain fill period will last between 55-65 days. During this period, Mother Nature could do us a huge favor by providing our crops with moisture (but not in abundance, slow gentle rains) warm sunny days and nighttime temperatures in the 60's. The most important day of the crop's life is the day that you plant; the second most important time in the crop's life is pollination and pod set. This newsletter contains some information on insects, diseases and crop conditions. It will not answer all of your questions, but hopefully it will prepare you for the next step in your decision making process. When the next newsletter arrives, school will have begun and the football season will be just beginning, so enjoy the next couple months of summer as we look towards a safe and prosperous fall.

Kent Ganzer

Important Dates:

August 7 - 17 – Iowa State Fair

August 12 – Farm Land Leasing Meeting, Extension Office, 10:00 a.m.

August 13 – Elwynn Taylor and John Lawrence, Speakers, Westphalia Hall

August 18 – Master Gardener Deadline for Fall Classes

August 19 – 4-H Beef Carcass Results Meeting, 6:00 p.m.

August 26 - 28 – Farm Progress Show, Boone

September 1 – Labor Day

Hard Times for Conifer Trees

Conifer trees (needle-bearing and shrubs that produce cones) of all types across Iowa including pines, spruces, firs and junipers are everywhere – in our yards, parks, windbreaks and wildlife plantings. Some conifers are native to Iowa or the Midwest. Although most are not, they have adapted extremely well and even thrived; this year Mother Nature is testing their limits. 2008 has definitely been a stress test for conifers, with record-breaking rainfall in the spring; many Iowans are finding out how long conifer trees

can tread water. In general, conifers hate wet feet. Conifers cannot tolerate long periods of waterlogged soils; their roots can't breathe in the water-filled soil. Like us, they can't hold their breath very long.

First to go are the tiny root hairs which do the work in absorbing water and nutrients. Once the roots run out of oxygen, they decline rapidly, and will start to die. Conifers can die in just a few days after waterlogged symptoms occur. Symptoms include yellowing of interior needles, top dieback and 100% of tree browning. These symptoms have been very common in the past 6 weeks.

Why is the damage so variable? Part of the reason is genetics. Conifer species will vary greatly; each individual tree within the same specie will vary in stress tolerance. Each individual tree root system will vary; two trees that are separated by a few feet can experience different signs of waterlogged damage, and some may not be damaged at all. Soil type, drainage, elevation and exposure to runoff are all factors that contribute to the trees stress level.

What do we do with these damaged conifers? Nothing will really cure these trees, unfortunately. Fertilization, deep aeration, or other horticulture therapies are not likely to help with recovery. These practices can be more harmful than good. Some trees will not recover. Trees that are 75% brown or crisp, are most likely already dead and will not recover. Replacement trees of a different species is highly recommended, and the trend is leaning toward conifers with higher tolerances to water. It is important to remember that there are other factors besides excess water; several trees are also dying due to the rapid spread of pine wilt. Pine Wilt is very destructive, and the cure is very expensive, unfortunately in the next couple of years our windbreaks, parks, yards, and timbers that have pine trees in them are likely to die. It is best to remove dead pine trees immediately to slow the spread of pine wilt to neighboring pine trees.

Information gathered from Mark Gleason, ISU Plant Pathology.

Soybean Cyst Nematodes

Several Western Iowa fields may be infested with soybean cyst nematode (SCN) but the infestations may not be known because SCN does not always cause obvious, above-ground symptoms. Yield loss of up to 40% has been documented without observing above-ground symptoms. An easy and free way to check your fields for the presence of SCN is to dig roots of susceptible soybean varieties and look for adult SCN females on the roots. The females appear as small, round, white objects on the roots and are about the size of a period at the end of a sentence. SCN females will appear on susceptible soybean roots through August and probably into early September. *Information gathered from Greg Tylka, ISU Professor of Plant Pathology*

Twisted Whorls, Buggy Whipping, Accelerated Growth Syndrome, Roping.

Take your pick! Whatever term that you choose to use is fine, they all describe the same situation where the uppermost plant leaves are tightly rolled and do not unfurl normally. Once the leaves break free, they are bright yellow in color. After they become exposed to the sun, they will turn green. Corn plants expressing these symptoms this year are between V10 – V12. In the past, these symptoms usually occur earlier in the plants life, around V5 – V6 leaf stage. So the question is why so late? It could be herbicides, several herbicide applications in corn were pushing the height or collar limit in which the herbicide was labeled for. It could be the hybrid, or your management practices, but probably the most likely cause was environmental stress. These symptoms are wide-spread across Iowa, all season long our crops have been under far less than ideal conditions, and this added stress factor can result in normal plants expressing themselves as ones with twisted whorls. Or whatever you call it. *Information gathered from Roger Elmore, Dept. of Agronomy and Alison Robertson, Dept. of Plant Pathology.*

When should I harvest my squash?

Harvest zucchini and other long-fruited summer squash when they are 1 ½ to 2 inches in diameter and 6 to 8 inches long. Scalloped varieties are better if harvested when they are 3 to 5 inches in diameter.

Fruit should have soft skin (rinds) that are easy to puncture and seeds should be soft and edible. Harvest plants frequently for continuous production.

Japanese Beetles are everywhere. What can I do?

Japanese beetles eat the foliage, fruits and flowers of more than 300 plants. When feeding occurs on foliage, they consume the tissue between the veins, leaving a lace-like skeleton. Flowers and fruits can be eaten completely. Adult beetles will be present for about six weeks in the summer. Adult beetles emerge from the ground in late June and will continue through July. Each beetle will live between 30 and 45 days.

Control of Japanese beetles is difficult. Persistence and repeated efforts are necessary in the control of Japanese beetles because new beetles emerge every day over a period of several weeks. Remove beetles in the early morning when temperatures are cool and the beetles are sluggish. Spraying of insecticides can help in controlling beetle populations; the downfall is that several applications are needed to maintain control.

What perennials grow well in wet soils?

When selecting perennials, it is important to choose plants that are suitable for the planting site. A few plants that grow well in moist to wet soils include sweet flag, Jack-in-the-pulpit, goat's beard, swamp milkweed, turtlehead, black snakeroot, Joe-pye weed, queen-of-the-prairie, rose mallow, Japanese iris, yellow flag, cardinal flower, obedient plant and spiderwort.

How often should I water my raspberries?

Adequate soil moisture is a must throughout the growing season. But, the most critical time is bloom through harvest. During fruit development, 1 to 1 ½ inches of water per week.

Prowl and Treflan Herbicide Damage to Soybeans

Earlier in the spring, there have been reports of herbicide damage. There were reports of soybean plants that had broken off just below the soil surface. Insects were not observed at these locations. It was later observed that a pendimethalin herbicide was used pre emergence; these pre emergence applications can sometimes cause a formation of a stem callous in soybeans. This area is quite brittle, and infected areas are subject to breakage. Injury of this kind is uncommon, but it shows up when the product comes in direct contact with the soybean stem. Particularly when the soybean plant is slowed due to cool temperatures and wet weather, this prolonged exposure of the stem tissue will continue to cause stem breakage, and in some cases will not let the soybean plant emerge at all. This is very uncommon, although it can happen.

Corn Earworms in Sweet Corn

I really enjoy eating fresh sweet corn; it may be from the garden or the local farmers market. The sweet corn grower battles with this pest almost every year, the corn earworm. The corn earworm does not overwinter in Iowa, but gets blown in from the south during May and June which reinfest the state. After these moths arrive, they start flying after sunset depositing their eggs on the fresh green silks of the corn plant. These eggs will then develop within 2 – 6 days and within one hour of hatching, the tiny larvae crawls into the silk channel and moves to the tip of the developing ear. The larvae feed on the silks and developing kernels. About three weeks after silking, the sweet corn is ready to harvest and eat, and there is the much developed corn earworm.

The infestations can vary greatly depending on the varieties and locations. Some varieties are more or less susceptible to earworm attack, genetically modified hybrids are starting to become available, and these hybrids produce their own attack against this pest. Growers and gardeners who want a clean sweet

corn patch must work hard to prevent earworms from getting into the silks. Once the earworms are crawling toward the tip of the ear, it's too late. Insecticide applications during complete green silk will prevent the corn earworms from attacking. Insecticide applications should begin at the first sign of green silk and then two days after the silks have elongated and a third time, two days after the second spraying. After the silks turn brown there is no benefit to spraying. This is an extensive amount of insecticide, but is currently the only practical method for assuring worm-free sweet corn. The alternative is not to treat at all and cut off the tip of infested ears and eat the remainder of the ear. *Information gathered from Donald Lewis, ISU Entomologist*

Redheaded Ash Borer Also a Threat to Ash Trees

We have all heard about the Emerald Ash Borer (EAB) destroying ash trees in the eastern United States. The EAB is currently as far west as Illinois. There are reports that the redheaded ash borer (which is native to Iowa) is becoming more widespread and leaving destruction in its path. The redheaded ash borer is a multicolored beetle; adults have a reddish head and thorax and four bands of fine yellow hairs that cross the beetles dark brown wing covers. The beetle is still very small, only 4-18 mm long.

The redheaded ash borer usually attacks stressed or weakened trees, but this is not the case all the time, they will also attack newly planted and mature trees. They are especially destructive to several hardwood species, but favored hosts are ash, oak, hickory, persimmon and hackberry. They will feed on fruit trees and have even been located on grapevines.

Larvae begin underneath the bark, then they move to the sapwood and heartwood to feed and mature, larvae feeding will cut off the nutrient and water flow and the tree dies. The tunnels generally follow the grain of wood which also distinguishes them from the EAB whose tunnels are in an S shape. The main trunk and branches are primary sites for feeding in older trees, while in younger trees the larvae cut tunnels vertically along the trunk, causing these trees to be prone to wind damage. In some cases, EAB was blamed for the damage, and it is now determined that it was the redheaded ash borer and not the emerald ash borer.

Fungicide Applications Have Begun What Should I Do?

Should I consider a fungicide application to protect yield? Common Rust is usually the first disease to appear in Iowa corn fields, usually in early July. Grey leaf spot and northern corn leaf blight are not usually far behind, sometime in late July. The thing to remember is that we are approximately two weeks behind normal. Common Rust is just now starting to show, at very low levels, which means grey leaf spot and northern corn leaf blight are also just starting, but more likely to show up in the second or third week in August. Don't get me wrong, there are fields with heavy infestations of GLS and common rust out there. Reports indicate that very few fields fit this criteria as of July 23. With our volatile markets and some fields already banged up by Mother Nature, the use of a fungicide to protect every bushel sounds real appealing and this could be a good year for fungicide applications---there are still several factors that need to be considered before pulling the trigger.

* Scout, Scout and Scout! If you haven't walked your field, how do you know if that field is experiencing any disease pressure? Don't assume that disease is present; just because it might have been there last year at this time doesn't mean that it is present this year. Remember we are roughly 114 growing degree days behind last year and don't spray just because you saw your neighbor spray.

* What's lost is lost: Because of certain weather patterns this year, some fields have already lost some yield potential. Hail damaged fields, lodged or green snapped fields or fields with uneven stands or fields that were earlier flooded, no fungicide application will recover that yield loss. It is best to target your fields with the highest yield potential.

* Growth stage of the crop: Make for sure the field is at or beyond VT (Tassel) stage. Last year some fungicide applications were made prior to VT or right at the beginning of VT, the end result was deformed ears and reduced yields.

* Hybrid susceptibility: Fungicide applications are not recommended on hybrids that are moderately resistant or resistant to foliar diseases. Also, fungicides are only effective for 14-21 days. Grain fill will last 55-65 days, don't get caught spraying too early and having the fungicide "wear" off before the foliar diseases set-in, disease spreading weather is typically during "state fair weather" which is typically hot and humid weather, and mornings that are filled with heavy dew or humid blankets of fog hanging over corn fields into late morning.

* Typical candidate for a fungicide application: You scout and notice some foliar diseases beginning to appear on the 3rd leaf below the ear leaf or higher, the hybrid is susceptible to common rust, grey leaf spot, northern corn leaf blight or other foliar diseases, the forecast is hot, humid and muggy weather, the previous crop was corn or the field has a history of disease pressure, a fungicide is most likely warranted to help protect your yield.

Your field doesn't have to meet all of the above factors; you just need to decide when the best time is to spray. And there may never be that best time, but this will hopefully give you a few guidelines to help make your decision a little easier.

Master Gardener Deadline Approaching

Reminder to all garden enthusiasts, the deadline for fall classes is August 18. Applications are available here in the extension office; the cost is a one-time fee of \$135.00.

Farm Land Leasing Workshop Set for August 12

"Should cash rent increase for 2009?" has been a much-asked question again this year. Setting cash rent in stable times is hard enough. Setting cash rent with higher prices for corn and soybeans and rising input costs and increasing land values is even more difficult. Input costs, such as seed and equipment, are also on the rise. Is a 5% return on land the correct approach?

Iowa State University (ISU) Extension in Shelby County is offering a Farm Leasing Arrangements meeting on August 12, from 10:00 a.m. – 12:00 p.m. at the Shelby County Extension Office in Harlan.

Tim Eggers, ISU Extension Farm Management Field Specialist, will be the presenter. According to Eggers, "The 2008 Cash Rental Survey shows that in Shelby County the average cash rental rate increased by 20 percent from 2007 to 2008."

Eggers will be discussing land values and cash rental rates, comparison of different types of leases, internet resources, and different methods to calculate fair cash rent, among other topics.

The Farm Leasing Arrangements meeting costs \$20 per person or \$25 per couple, which includes the 100-page Farm Leasing Arrangement booklet. Reproducible lease forms of several types are included in the notebook.

Pre-registration is requested to assure that there will be an adequate supply of Farm Leasing Arrangement booklets available. To pre-register, call the Shelby County Extension Office by Friday, August 8 at 712-755-3104.