Capital Area Ag Report
August 1, 2013

“To disbelieve is easy. To scoff is simple. To have faith is harder.” — Louis L’Amour

Announcements

2013 DAIRY TOUR
Dutch Hollow Jerseys—Chittenden family
Wednesday, August 14, 1 to 3 pm
101 Running Creek Rd., town of Kinderhook
High-quality milk marketed in unique ways.
Family partners in a Jersey herd focused on breeding
Market high-quality milk to local name-brand processors
Experience at fostering good neighbor relations

PLEASE BE PROMPT
Please RSVP so we have enough materials & refreshments for you. Contact Katie Close (kec98@cornell.edu, 518-925-5806) or Aaron Gabriel (adg12@cornell.edu, 518-380-1496).

Soybean Integrated Pest Management
Field Meeting Series
ID and control of insects, weeds, and diseases of soybeans
Friday, August 9, 1 – 3 pm, at Langdonhurst Farms, 1601 Route 7A, Copake. Late-season IPM.

2 pesticide re-certification credits.
No charge, but please call for a head count, Aaron Gabriel, 518-380-1496, adg12@cornell.edu.
Weather Data—August 1, 2013

<table>
<thead>
<tr>
<th>Location</th>
<th>Rain</th>
<th>GDD 86/50</th>
<th>GDD 41</th>
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<tbody>
<tr>
<td></td>
<td>Past Week</td>
<td>This Month</td>
<td>Since April 1st</td>
</tr>
<tr>
<td>Granville</td>
<td>0.2</td>
<td>4.3</td>
<td>16.3</td>
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<tr>
<td>Whitehall</td>
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<td>3.5</td>
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<td>Argyle</td>
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<td>25.0</td>
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<td>Easton</td>
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<td>6.1</td>
<td>25.6</td>
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<tr>
<td>Redhook</td>
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</tr>
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</table>

Calendare (continued)

Tuesday, August 6—Small Scale Anaerobic Digester Workshop at Benton Fire Hall, 932 State Route 14A, Penn Yan, NY. 9:30 registration, 10:00am – 2:30 pm program. Lunch will be provided; Suggested donation: $10 at the door. Pre-registration required. Call CCE at 315-536-5123.

Aaron’s Comments

Corn: Corn rootworm (CRW) adults are emerging from the soil. I have only seen a few. Look for these beetles while there are fresh silks (over 2—3 weeks). If there is more than one western CRW (black & yellow stripped) or two northern CRW (green) per plant, then that field will have a CRW problem next year. Plan some sort of rotation or control for 2014. Armyworm were reported in Granville. Corn and reed canarygrass were the targets. Diseases are showing up in varying intensities. There are reports of disease lesions in the upper canopy. When the disease infects the leaves above the ear, then there is the potential for yield reductions. At that point and before the corn gets too tall to spray, you want to make a decision about applying fungicide or not.
Gray leaf spot.                                               Northern corn leaf blight lesion from Washington County this week.

**Soybeans:** The beans I have seen look good - very few soybean aphids, several lady beetles, very few disease lesions. I saw a couple spots of downy mildew in the upper canopy in some fields. The disease you need to watch this year is **white mold (Sclerotinia).** We have had perfect weather for it, moist and warm. The trouble with white mold is that it produces a resting structure (sclerotium) that will survive for 5 years or so. They survive more easily when they are plowed under. With no-till, they remain on the soil surface where there is lots of biological activity (decomposition) and insect feeding. Sclerotia survive less in no-till systems.

(Clockwise)

In a field, you may see the top of a dead plant. As you pull back the other plants you will see that the entire plant may be dead. If you look closely, you will see white fuzzy mold growth. At the end of the season you may find black pea-size sclerotia within the soybean stem.
Pastures: Be sure to clip weeds. Mowing very closely, 3” or less, will delay grass regrowth but remove competition for white clover to grow. There has been an issue of ergot in Wisconsin pastures. Ergot is a plant disease, a source of the hallucinogenic drug, LSD. During flowering, wet weather promotes infection of the grass flowers by the ergot fungus. As it grows, it replaces the seed with a black or brown fungal mass (sclerotium). It looks more like a rodent dropping. When animals eat too many of these ergots, they can get sick. If you see sclerotia in your pasture grasses, clip the pastures so that animals do not eat them. One publication states that 10 sclerotia per quart of grain is enough to reject the grain for feeding to cattle. Determining how much pasture infect it takes to affect cattle is pretty much a rough estimation. See the fact sheet at the end of this issue.

Winter Forages: It is time to plan and plant some winter forages. Again, here are some of the things we learned from our winter forage demonstration plots:

- Rye and triticale are two very different crops. Triticale must be drilled 1 1/4” deep in early September; rye is less particular. They have similar forage quality at the same stage of growth.
- Fall oats are difficult to harvest. Plant fall oats on well-drained fields so that you can get machinery to them in October or November. Have a “plan B” of greenchopping or grazing them.
- Oats at the soft-dough stage are 65% moisture. So if you plant a short-season oat now (grain type) and get it to reach soft-dough this fall, you can direct chop them without trying to wilt them in October or November.
Ergot is a fungal disease of worldwide distribution that is common in the northern two-thirds of North America. Ergot affects wild and cultivated grasses, as well as small grain crops such as wheat, oats, barley and especially rye. The ergot pathogen produces alkaloid toxins that are mostly vasoconstrictors. This means that the compounds produced as a result of ergot reduce blood flow in mammals. If these alkaloids are ingested they can result in convulsions, hallucinations, gangrene, and death. The effect of ergot is cumulative; poisoning may develop slowly if lesser quantities are eaten regularly. In animals such as cattle the first symptom of alkaloid toxicity is lameness, 2 to 4 weeks after exposure, as a result of the reduced blood flow to the extremities. The reduced blood flow will eventually lead to complete blockage of blood vessels with terminal necrosis of the extremities such as hooves and ears. This can be exaggerated in very hot or cold conditions.

Signs of ergot first appear as droplets of a sticky exudate (called honeydew) on immature grain heads. Honeydew contains asexual spores of the ergot fungus. Over 40 species of insects are attracted to honeydew and can carry spores from infected to healthy plants. After approximately two weeks, infected grains are replaced by dark, compact fungal structures called sclerotia. Sclerotia range in size from $\frac{1}{16}$ to $\frac{3}{16}$ inches in length, and often look like seeds, rodent droppings, or insect parts.

Ergot is caused by several species of the fungus *Claviceps*, most commonly *Claviceps purpurea*. Sclerotia of these fungi survive in soil and harvested grain. Sclerotia require a one to two month period of cold temperatures (32 to 50°F) after which they germinate to form small, mushroom-like structures that produce sexual spores. Germination is most common in cool (57 to 84°F), damp weather and is inhibited at higher temperatures. Sexual spores are blown to developing grain heads where infection occurs. Humid weather (> 90% relative humidity) contributes to honeydew production. Ergot is also often more severe if frosts occur at the time of spore production.

Fungicide treatments are not recommended to control ergot. If ergot occurs, modern cleaning equipment may assist in removing sclerotia from grain. However, if sclerotia are broken or are the same size as the grain itself, removal might be difficult and costly. Often attempted removal of sclerotia from grain will still result in levels above marketable thresholds. Tolerances for ergot sclerotia in harvested grain can be as low as 0.05% by weight. Infected grass crops should not be harvested for animal feed or grazed. All hay should be destroyed and should not be used for animal bedding.

Management of ergot should include rotation with at least one year between small grain crops. Use crops that are not susceptible to ergot (e.g., soybeans, alfalfa, corn) in years when small grains are not grown. Plant seed that is free of ergot sclerotia. Ergot-resistant varieties are not available, but avoid longer-flowering varieties as they tend to be more susceptible to infection. Keep weed grasses under control. Also, mow areas adjacent to small grain fields to prevent grasses from flowering and prevent development of ergot in these areas. In fields where ergot becomes a problem, consider clean, deep plowing that will bury ergot sclerotia to at least three to four inches, thus preventing sclerotia from germinating.