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Washington County Ag Report
July 27, 2004

Contributors are Sandy Buxton, Colleen Converse, Aaron Gabriel, Laura McDermott, and JJ Schell.

"To prop up a sad and discouraged mind is better than to conquer a kingdom."
- Martin Luther

Announcements

FIELD CROP SCOUTING, COME EARN A PESTICIDE RECERTIFICATION CREDIT BY SCOUTING WITH ME FOR ONE HOUR:
Tuesday, August 3 @ 11 am, at Chambers Farm, Chambers Rd., Salem.

Aug 3. First Annual Twilight Meeting at Cornell's Freeville Organic Research Farm
Cornell University researchers will host their first annual twilight meeting at the Freeville Organic Research Farm in Freeville, New York, on Tuesday, August 3rd from 5PM to 8PM. Visitors will tour the research plots and hear about current research projects. For more information: Jeromy Biazzo, Farm Coordinator, (607) 255-2041 or jb262@cornell.edu.
Thursday, August 5th at 6:30 p.m.- Vegetable Twilight Meeting at Jim Stannards Farm on Harkness Road in Center Cambridge area. Go south on Route 74 from Greenwich past county line. When road makes hard bend to right look for Harkness Rd. on left. Follow signs to field. DEC Pesticide Recertification credits will be available. Come and take a look at the SARE project, which is examining two different composts in a plasticulture system. Call 746-2560 for more information and directions.
August 12 – 15, Northeast Organic Farming Association 30th Annual Summer Conference – at Hampshire College, Amherst, MA. Info at www.nofa.org/conference/2004 or 508-799-2278.

The Northeast IPM Website has resources from crops to public health at http://NortheastIPM.org.

Midwest Commodity Prices - from the Wall Street Journal

Corn per bushel	$2.12/bu	Cotton Seed Meal per ton	$180/ton
Soybean per bushel	6.84/bu	Corn Gluten Feed	63/ton
Hominy Feed per ton	75/ton	Wheat, soft white	3.87/bu
48% Soybean meal per ton	230/ton	Tallow per pound	.22/lb

These prices are provided only to show where the general market trends are moving and to help you determine appropriate ration ingredients. Local prices will vary due to shipping, processing, and discounts.

Weather Data – 2004 and average of 1999 - 2003

	Argyle		Easton		Whitehall		Jackson	
	2004	Average '99 – '03	**2004**	Average '99 – '03	**2004**	Average '99 – '03	**2004**	Last Year
Rain Past Week	**1.30**	0.87	**0.15**	0.81	**2.21**	1.42	**0.10**	1.78
So far this month	**6.15**	4.05	**4.45**	3.58	**4.63**	4.77	**3.04**	4.01
Total since April 1st	**16.79**	13.74	**15.45**	14.18	**14.81**	15.02	**15.28**	11.75
GDD Base 41 Growing Degree Days = [hi temp + low temp]/2 – 41								
Past Week	**215**	214	**214**	212	**230**	221	**202**	225
Since April 1st	**2253**	2240	**2316**	2316	**2535**	2488	**2301**	2302
GDD 86/50 [hi temp + low temp]/2 - 50 High's >86°F are set to 86°F, low's <50°F are set to 50°F								
Past Week	**151**	150	**148**	146	**166**	155	**140**	156
Since April 1st	**1539**	1519	**1617**	1591	**1729**	1695	**1601**	1579

DAIRY NOTES: Last week I had the opportunity to see some progressive and innovative dairy farms in southern Pennsylvania and although they each managed their businesses differently, I saw a common theme in the way they handled their employees. The owners stressed the importance of weekly employee meetings especially when it involved the milkers. The meetings allowed the owners to interact with the employees and provide feedback using performance indicators I mentioned in a previous issue of the agricultural report. These meetings are not only essential for the employees but the owners also benefit from these meeting by getting suggestions on how improvements to the farm can increase the quality of the employee's performance and in the long run make them more profitable. Another beneficial aspect of employee meetings is, it shows your employees you have a vested interest in their opinion and allows them to take some ownership in your business which can be used to prevent turnover. Although most of the farms we saw on this trip were large and had structured meetings and chains of command I recommend to all farms who have at least one employee to set aside some time to talk to them. Finally your employees see things from a different perspective than you and it is important to get their views on your business because two heads are always better than one.

FARM BUSINESS MANAGEMENT: The Dairy Tour to PA of last week served to remind all participants of the need to plan ahead. We saw different types of technology in effect on the various farms. Some farms are trying to become more efficient by adopting it – others are accommodating regulations.

All of the farms commented that an owner had to be planning ahead for where the farm would be over the next 5-10 years, in order to plan for the future of the finances and the facilities.

CROP INSURANCE: I recently attended a workshop on crop insurance. It seems that the USDA would like to move farmers from commodity programs to crop insurance. The Risk Management Agency (part of the USDA) administers federal crop insurance funds, but insurance is purchased through commercial insurance companies. RMA has the goal to educate all farmers about crop insurance so that they can make informed decisions to purchase or not purchase it.

There are several types of insurance. Catastrophic (minimal coverage), Buy-up (good coverage for a little more money), revenue based coverages (based on yield and market price), and more. You may have heard about AGR for small farms. What I learned about AGR is that it is appropriate when your annual income varies more than 25% due to loss in yield or market value. Data shows that dairy farm income usually does not vary 25% or more; so dairies are better off with typical crop insurance. Currently, losses due to forage quality and corn harvested for silage are not included in insurance programs. However, insurance is being developed to include these two things, and should be here in a couple of years. Crop insurance covers many types of losses, not only at harvest, but also when plantings fail, or when plantings are delayed or prevented due to weather. We will be having some seminars to teach you all the details of crop insurance so that you can make wise decisions. AG

CROPS

Soil Quality: Today I looked at a hilly field of corn that had barely any erosion, despite the torrential rains that washed out many other fields this year. What was the difference? This field had a rye cover crop and it was planted no-till.

Beneficial Insects: You can find a great manual to beneficial insects on the web at http://www.nysaes.cornell.edu/ent/biocontrol/. You can also purchase this manual, "Natural Enemies of Vegetable Insect Pests" from CCE by calling 607-255-2080. AG

Alfalfa: Today's rain prevented me from sweeping any alfalfa. Cool wet conditions should slow down potato leafhopper and increase the diseases in them that I mentioned last week. Foliar diseases will also be on the rise. Cutting high to improve forage quality will leave a lot of diseased tissue in the field to infect regrowth. I suggest that you use the typical 3-inch cutting height and clean up the fields.

Field Corn: Most corn is looking good. Check to see if you rootworm insecticide worked by pulling up a few plants and looking for brown feeding wounds. A couple of eaten roots is normal. Moisture stress (dryness) hurts corn the most at pollination. I guess we will not have to worry about that this year. Now is the time to check fields for **corn rootworm adults.** Look for beetles in silking corn. An average of one western CRW or two northern CRW per plant means that a rootworm insecticide will be necessary if that field is planted to corn in 2005. The pictures below are from Marlin Rice (ISU).

From Ken Wise –"I have observed common rust in several corn fields over the last 2 weeks. The conditions that favor this rust are warm and moist weather. Common rust appears as small, round to elongate, golden to cinnamon-brown pustules that form on leaf surfaces and other above ground parts of the plant. The pustules become brown to black as the plant matures. When the disease becomes severe, the leaves turn yellow, wither and die early. Common rust rarely causes significant yield reduction in field corn. Most commercial corn hybrids have good tolerance to this disease. For pictures of common rust view this website: http://ohioline.osu.edu/b827/b827_39.html." So far, I have seen no significant diseases on corn.

Pasture: Today I looked at some brown midrib sorghum/sudan (BMR SS) used for pasture. One paddock was plowed fit and planted in mid-June. It was grazed at 24 inches high, about 6 weeks later. The cows had been milking only fairly well, and then they increased production greatly while grazing the BMR SS. If life could only be that good all the time. Another field was grazed and a third was mowed, then killed with herbicide, and planted to BMR SS with a no-till drill in late June during dry conditions. This planting is doing poorly because of poor emergence and slow growth. The grazed field has a lot of plant debris, which seems to have contributed to a poor stand. The drill seemed to be working poorly since two rows consistently performed better than the rest of the drill. The field that was mowed, has more regrowth from the previous sod, but the BMR SS stand has a higher population (though not good) and better growth. The lesson learned here, is that when planting no-till, let the sod break down for a couple of weeks so that the soil loosens and the decomposition does not rob the soil of oxygen. Too much plant debris can cause problems – due to the coulters pinning material into the furrow and/or robbing oxygen for decomposition.

VEGETABLES

Cucurbits: Crisis exemption issued for Quintec to manage cucurbit powdery mildew in NY
by Meg McGrath,Cornell University A crisis exemption was issued for Quintec 2.08SC because fungicide resistance rendered chemical control of cucurbit powdery mildew unacceptable in 2003. Including Quintec in fungicide programs will facilitate effectively controlling powdery mildew and managing resistance. Without a second fungicide that effectively controls powdery mildew on the lower surface of leaves resistance will develop. Quinoxyfen, the active ingredient in Quintec, has a new mode of action not in any registered fungicides. Although it is not systemic, it moves into leaf surfaces and redistributes, and it has a vapor phase. Excellent control achieved on the underside of leaves is thought to be due to redistribution via its vapor phase. Quintec can be applied a maximum of 3 times at 4 fl. oz/A as a foliar spray to melons, winter squash, gourds, and pumpkin. Consecutive applications are not permitted to minimize selection pressure for resistance. One recommended fungicide program (7 to 10 day interval) consists of Quintec plus a protectant fungicide (sulfur, chlorothalonil, copper, etc.) applied in alternation with a DMI fungicide (Nova) plus a protectant fungicide. Begin the alternation with either Quintec or Nova. The first application should be made either preventively or shortly after detecting powdery mildew at the action threshold of at least 1 of 50 old leaves with symptoms. It is critical that the fungicide program be started very early in powdery mildew development for resistance management**. Curative applications are strongly discouraged**. Apply Nova at the highest label rate (4 oz/A). Monitor powdery mildew severity in crops treated with Quintec

and/or Nova. Stop using these fungicides if powdery mildew does not appear to be suppressed on the lower leaf surface. Also protectant fungicides alone are recommended for the last applications to a crop.

Quintec has provided excellent control of powdery mildew on lower surfaces of leaves as well as on upper leaf surfaces in fungicide evaluations conducted at Cornell University and at other public institutions in the United States. For example, Quintec applied in alternation with Bravo + Nova was one of the most effective treatments in Freeville, NY, in 2002. For more information on powdery mildew, fungicide resistance, and management, see on-line articles at vegetablemdonline.ppath.cornell.edu

Vegetable Pest Status Report July 22, 2004 By John Mishanec, IPM Vegetable Program **Potatoes** (From john Gibbons, Ontario County CCE) **Late blight** has been confirmed in a small protected potato field in Yates County and is also in Monroe, Orleans and Steuben Co., and areas in PA., so local tomato and potato growers should scout frequently and keep their crops protected with fungicide. **A 5-day spray interval is essential on both crops.** There are many ways that late blight could get to your farm. In cloudy, humid weather viable spores of late blight can be carried many miles on the wind. Tomato and petunia transplants have brought it into NYS from the south in years past. It does not carry over in soil that we know of but does carry over on cull potatoes and volunteers. Small areas of culls or diseased plants can be buried deeply or covered with black plastic until they're completely dead. Destroy any potato or tomato fields that are too badly infected to stop the disease from spreading to other fields or farms. If 5% of the foliage is diseased Plant Pathologist Bill Fry says that you won't be able to stop it. Spray foliage with Gramoxone or a potato vine-killer and disc it up immediately. Repeat if necessary so no green tissue remains. If you're destroying a spot in a field be sure to also destroy a wide border around the spot since infection that's not yet visible is likely. In the morning while plants are wet with rain or dew late blight looks very black with spreading, irregular borders. A fine white fuzz of sporulation is often present. In the afternoon on a sunny day the lesions on leaves look brown with a prominent yellow-green border and the sporulation will be dried. Lesions may appear first on leaves, stems, the growing point, or in the axils of the leaves. Lesions may be tiny or may be over an inch across. If you think you may have late blight place green foliage with suspicious lesions in a blown up plastic bag and seal. Keep at room temperature if you can get it to us within 24 hours. These conditions will promote spore formation, which is diagnostic. If you have to hold the sample longer then refrigerate. If you think you may have late blight call your local Cooperative Extension office or e-mail me at jjm27@cornell.edu Photos are accessible in the Disease Factsheet section online at http://vegetablemdonline.ppath.cornell.edu/.

If a 5-day spray interval is not possible be sure to use one of the more effective fungicides such as Curzate, Gavel or Previcur Flex. Curzate and Previcur Flex need to be tank mixed with a protectant fungicide. Gavel is formulated as a mix with mancozeb. Previcur Flex has systemic activity (movement up and out), Curzate has locally systemic activity, but Gavel should be treated as a protectant. Gavel and Previcur Flex have tuber blight activity. Bravo Weatherstik has also provided good control but it's not systemic and doesn't seem to have tuber blight activity. Maneb/mancozeb materials are good mixing partners. (from T. Zitter, Cornell) A good hilling can protect tubers from late blight infection. Quite a bit of leaf burn is showing up where potatoes were hilled later than desired. Conditions have been excellent for *early blight* development lately. An application of Quadris when early blight is first seen and then again in a

few weeks will also help control *Colletotrichum black dot*, which causes stems to collapse early in hot years and also causes a surface tuber infection that looks similar to *silver scurf*.

For organic growers, several fixed copper fungicides are available (Basicop, Champ, Kocide, etc.) and provide fair control of late blight and early blight, again if used preventatively. These and other copper products are registered for use on both potato and tomato.

Large *Colorado potato beetle* larvae along with a few small larvae are out in fields. Try to use an insecticide from a different chemical class if you need to spray for second generation larvae to slow the development of resistance.

Sweet Corn

We have still not caught any corn ear worm (CEW) locally. Last week we caught a few in Orange County and caught even fewer this week. The threshold for CEW is one per night and we are well below this. Long Island is catching a few and western NY is still only catching a few so we can feel reasonably safe about CEW. Watch the storms coming up from the south. Lately the storms have been coming from the west and not carrying the migratory worms.

Fruit:

If you are a fruit grower and are wondering why we never mention fruit culture in the Ag Report it's because Washington County is part of the Northeast Regional Fruit Program led by Regional Fruit Specialist Kevin Iungermann. Kevin puts out a newsletter for Tree Fruit growers and small fruit growers and if you are not a member, you need to be. Call 885-8995 and ask to join the Northeast Regional Fruit Program.

Also – fruit growers should be aware that now is the time to gather leaf samples for foliar nutrient analysis. Plant tissue analysis is used to directly measure the amount of nutrients in plant parts. For perennial plants this may be a better indicator of nutrient status than a soil test. Foliar analysis does not need to be done annually, but should be done routinely every other year. The cost is $28 and will provide a nitrogen reading plus 13 other essential nutrients. Sampling kits are available at our office.

Landscape: Lily leaf beetles, *Lilioceris lilii*, found in Henrietta, NY by an astute Master Gardener. The adult beetles can feed on a number of hosts including Lilium sp., Fritillaria sp. Polygonatum sp.(Solomon's seal), Solanum dulcamara (bittersweet nightshade), Solanum tuberosum (potato), Lily of the valley, Hollyhock, Hosta sp., Smilax sp., Nicotiana sp. and others. However, the beetle is reported to lay eggs only on Lilium sp., and Fritillaria sp. and heavy feeding is only seen on these plants, feeding on leaves, stems buds and flowers. The adult beetle has a bright scarlet red body and black legs, head and antennae as well as underside. The eggs are red-orange in color, laid on the underside of the leaves in an irregular line, and hatch in 4 to 8 days. Females are reported to lay about 300 eggs over her life span. The young larvae resemble slugs, swollen orange-brown to greenish, and carry excrement on their back. Larvae feed for 16 to 24 days, going through 4 instars before entering the soil to pupate. Pupae are a bright fluorescent orange. New adults emerge 16 to 24 days later and feed into the fall. The adults spend the winter in the soil or in plant debris in garden or woods. In the spring mating occurs and egg laying takes place anytime March through June. Lily leaf beetle was first officially sighted in the USA in the summer of 1992 in Cambridge, Massachusetts. This European insect was discovered in Montreal, Canada in 1945. This is the second sighting in

NYS. It was first seen in Clinton County in 2001 (also by a Master Gardener!!). **If you see this insect, please contact the Cornell Cooperative Extension office at 1-800-548-0881.**

I have seen examples of **Juniper Tip Blight** this past week that seems to be in abundance. Try to plant resistant varieties whenever possible. If you are managing this problem, remember to rotate your sprays between Mancozeb and Fungo or Banrot to avoid resistance problems. Junipers that have very dense growth tend to really succumb to one of the two forms of tip blight and they are also damaged by rust diseases. Contact me for a list of resistant varieties if you are planning an installation anytime soon.

From the disease Diagnostic Laboratory a report that **Fire Blight,** a bacterial disease has been very prolific across the state. Crab apple, Ornamental pear, cottoneaster, and firethorn have found their way into the laboratory with this disease. **Quince rust**, which is caused by the fungus *Gymnosporangium clavipes*, has also been common. This disease, which is not often thought of as a problem of ornamental pear, has also done considerable damage to the species. In some cases, the symptoms of branch dieback caused by the rust appear very similar to those caused by **fire blight**. If you suspect **rust**, look very closely at the dead twigs for the characteristic swellings which may have a pink to orange protuberance. Quince rust, like **cedar apple rust**, needs an alternate host – the cedar. You can often see the fruiting mass of the fungus in cedar trees in the spring. In general, rust diseases are much less problematic than Fire Blight, so make sure your diagnosis is correct.

As **turf** growth outpaces mowing this summer with abundant rainfall, the thought of fertilizing seems a great irony. Warm moist soils under most older turf areas (>15 years) are releasing more than adequate nitrogen from organic sources, however younger (<15 years) turf areas may not have enough organic fuel to keep up with the flush of top growth we are experiencing. Also, if the turf is expected to receive some traffic in the next few weeks a slow release nitrogen fertilizer might be timely and avoid the problems associated with depleted nitrogen in early September when traffic can be severe. Be prepared to fertilize as soon as possible in late August or early September.

Disease problems in turf are rampant. We have seen red thread, pink patch, and brown patch during the past two weeks. Very difficult to control these problems with the current weather pattern.

Sincerely,

Aaron D. Gabriel
Extension Resource Educator
Crops and Soils