

**Washington County Ag Report
May 25, 2004**

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

Quote

“Hell is being frozen in self-pity.” -- Unknown

Announcements

FIELD CROP SCOUTING, COME EARN A PESTICIDE RECERTIFICATION CREDIT BY SCOUTING WITH ME FOR ONE HOUR:

Tuesday, June 1 @ 11 am, Albert Marns farm, Hendee Rd., Kingsbury.

Tuesday, June 8, @ 11 am, Dan Thomas Farm, Center Cambridge Rd., Cambridge.

Thursday, June 4, 9 – 4 pm Bovine Hoof Care Clinic-SUNY Cobleskill – Looking for an opportunity to enhance your bovine hoof care knowledge and skill? Here is a one day clinic that can help you develop confidence in diagnosing and treating lameness problems. Registration is limited to 12 participants so do not delay in securing your seat in this upcoming program to be held at SUNY Cobleskill. The registration fee is \$ 50 for the day with lunch included. Please make \$ 50 check out to: RESEARCH FOUNDATION-SUNY COBLESKILL If interested on a piece of paper print your name, address and phone number and mail it along with check to: SUNY Cobleskill, Ag. Division Office, Curtis-Mott Bldg., Rt.7, Cobleskill, NY 12043 Attention—HOOF CARE CLINIC

Sat.-Sun., June 5-6, Northern Rensselaer County 10th Annual Farm Tour. Free tour of 6 diverse farm operations. American bison, cattle, pigs, llamas, dairy goats and kids, sheep and lambs, geese, and chickens, as well as vegetables, herbs, flowers and fruit. Pack a picnic. No dogs, please. Northern Rensselaer County Alternative Agricultural Approaches. For more information and a map call. 279-9867

Saturday, June 12th, 9-4, Christmas Tree Growers Workshop, Sunny Crest Tree Farm in Kingsbury. NYS DEC Pesticide Credits will be available. Cost is \$30/person. Pre-Register by June 10th. Call 668-4881 to register.

Midwest Commodity Prices - from the Wall Street Journal

| | | | |
|--------------------------|-----------|--------------------------|-----------|
| Corn per bushel | \$2.85/bu | Cotton Seed Meal per ton | \$200/ton |
| Soybean per bushel | 8.765/bu | Corn Gluten Feed | 79/ton |
| Hominy Feed per ton | 82/ton | Wheat, soft white | NA/bu |
| 48% Soybean meal per ton | 280.5/ton | Tallow per pound | .195/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 | 3.25 | 0.84 | 2.90 | 0.79 | 3.20 | 0.86 | 3.15 | 0.77 |
| So far this month | 6.19 | 3.25 | 5.18 | 3.07 | 5.62 | 2.81 | 5.53 | 2.67 |
| Total since April 1 st | 8.09 | 5.02 | 8.07 | 5.17 | 7.75 | 5.89 | 9.30 | 4.73 |
| GDD Base 41 Growing Degree Days = [hi temp + low temp]/2 – 41 | | | | | | | | |
| Past Week | 154 | 107 | 157 | 116 | 159 | 128 | 161 | 120 |
| Since April 1 st | 633 | 525 | 717 | 590 | 785 | 657 | 655 | 569 |
| 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 | 75 | 63 | 80 | 73 | 81 | 79 | 85 | 82 |
| Since April 1 st | 435 | 369 | 499 | 437 | 516 | 449 | 470 | 437 |

DAIRY NOTES:

Recently more and more calls have been coming into the office regarding our knowledge of businesses or farms that do custom work whether it be tillage, planting, harvesting, or spreading. Being I am new to Washington County and am unsure of the custom operators in the area I have come up with a brilliant idea to devise a list of anyone that does custom work. Many small herds in the county that don't have the interest or the financial resources to support owning large amounts of machinery have turned to custom operators. Your mission, if you choose to accept it, is to call us at the office (1-800-548-0881) if you do any kind of custom work and would like to be on the list or you know of somebody that should. This is a chance for you to bring some extra income to your business through free advertisement as well as helping your fellow farmers survive these tough economic times. Remember to post the necessary labor information for your employees. If you need something please call us and we can get it to you or if you are in question we can address your operation. Finally when life hands you lemons make lemonade, take the down time presented by the recent monsoons to check over and service forage and planting equipment to prevent costly breakdowns when the good weather presents it self again.

FARM BUSINESS MANAGEMENT: This is just a short note. I have included the 2 key handouts relating to the NYS Department of Labor workplace inspections. Due to the number of phone calls, I thought it would be worth mailing them. If you need a work agreement in Spanish, please give me a call. For those that receive the "Ag Report" by email, call our office for copies of a "Sample Work Agreement" and the "Minimum Wage" poster.

LIVESTOCK PEST MANAGEMENT: Please read the article attached at the end of “Ag Report”, from Keith Waldron (Cornell IPM Program). Now is the time to focus on fly management, before populations explode due to the summer heat.

AIR EMISSION LAWS COMING TO AGRICULTURE: See the attached article, from the Pro-Dairy Program.

PETROLEUM STORAGE: With high fuel prices, folks may be thinking of purchasing fuel in large quantities. If you add up the volume of all your fuel storage tanks, and it amounts to more than 1,100 gallons, then you are required to register with NYS Dept of Environmental Conservation and be permitted. I will have more on DEC regulations in next weeks “Ag Report”. For now, review the following two documents to be sure that your fuel storage practices are environmental sound:

<http://www.agmkt.state.ny.us/SoilWater/AEM/PetroleumStorage.pdf> for the Ag Environmental Management worksheet, and

<http://efotg.nrcs.usda.gov/treemenuFS.aspx?Fips=36115&MenuName=menuNY.zip>, for the NRCS Practice Standard for fuel storage facilities.

Call me if you do not have computer access to the web and want copies mailed to you. AG

CROPS

Soil Quality: Too bad that Mother Nature has no regard for moderation. Rain from lightening storms adds about one pound per acre of nitrate. However, with the deluge of rain, we now have water-logged soils so that the soil microbes and plant roots are suffocating from no oxygen. The nitrate formed by the lightening and delivered to the soil by rain, will be **denitrified** – that is turned back into nitrogen gas. Also, the nitrogen fertilizer applied at corn planting may also be denitrified or leached away. At the risk of being a nag, I just want to point out that the effects of this weather are another reason why we should go back to side-dressing nitrogen fertilizer on corn, rather than putting on all our fertilizer at planting.

Now is a good opportunity to examine fields for areas of poor drainage. Is this ponding caused by the natural soil characteristics or field work practices? Can you remedy some of these “ponding areas” with tillage or a deep-rooted crop? AG

Alfalfa: In Granville today, alfalfa was in early bud and at 38% NDF, according to the alfalfa stick – just perfect to begin harvest. Now we just need the right weather. **Alfalfa weevil** were fairly numerous and at the threshold – more than 50% of stem tops with feeding damage. By looking at the field, you would not think that it had this much damage. Larvae were from small to large. Leaf diseases are still moderate, but about to increase rapidly as fields lodge and the weather remains *moist*. Some areas of fields are under water. It may only take a couple days of flooding to kill alfalfa. Spot seeding some red clover may be needed in areas where the alfalfa dies out.

Field Corn: Scout fields for **Black Cutworm (BCW)**. We found old and fresh BCW feeding today. The seed was coated with Poncho 250 and it seemed to be doing a good job. We found two dead black cutworms. For one worm, it was obvious that it taken a couple of bites from two corn seedlings next to each other. The BCW larva was dead by one of the plants. Poncho is a *systemic* insecticide – it is absorbed into the plant by the roots from the seed coating. The BCW, seed maggots, or other pests must eat the plant to get a dose of the insecticide. The plants that we saw, which were eaten by the BCW will easily grow out of the little damage inflicted.

Check your corn populations. Count the plants in 17 feet 5 inches of row, if your rows are 30-inches apart. Since this is 1/1000th of an acre, multiply the number of plants by 1,000 to get a

per acre population. Count the plants in several rows planted, being sure to include rows from each planter unit. Plant populations should be from 26,000 plants per acre on our least productive soils to 34,000 for our most productive soils. **Uneven emergence** will reduce yield more than uneven plant spacing. **Corn under water**, can survive for a couple days. All this rain may reduce herbicide effectiveness. Monitor fields closely for weeds. I will include more next week on corn herbicides.

Grasses: Reed canarygrass is heading out in Granville, as is bromegrass. Bromegrass holds its quality longer than than other grasses. Regrowth of brome and reed canarygrass originates from buds on the roots (rhizomes) under the soil surface. It is slower than for orchardgrass, which regrows from buds in the crown at the soil surface. **Topdress harvested grass fields with 50 – 75 lbs of nitrogen**, or apply the appropriate rate of manure.

Pasture: In the past years, two farms have had heifers on pasture develop edema in their lower legs. Just below the dewclaw, an oozing sore develops. We are trying to determine the cause. If you have had this same problem, or know of others with this problem, please call me.

Soybeans: Cornell research shows that a planting rate of 200,000 seeds per acre yields the most (this is 150,000 – 200,000 plants per acre). There is a yield penalty for seeding less or more than this amount. Use this seeding rate for 7”, 14”, and 30” row spacings. Calibrate your planters, since seed size may be small this year. Also, inoculant is also recommended even on fields that have had soybeans in the past.

VEGETABLES

The Updated 2004 Cornell Commercial Vegetables Guidelines are now available online at <http://www.nysaes.cornell.edu/recommends/>

Cole crops: Management strategies for flea beetles (Umass Veg Notes) Basically, strategies for flea beetles could be summarized as one of five options: (1) Escape them, (2) Starve them, (3) Kill them, (4) Shut them out (5) Combine as many of these as possible. Here are more details:

Crop rotation

To reduce and delay flea beetle invasion of spring crops, move them as far away from the fields that were used for fall Brassica crops as possible. Barriers such as woods, roads, waterways, etc. help slow movement from overwintering sites to the new spring field. We do not know enough about beetle flight patterns to answer the question “how far is far enough?” We do know that any rotation is better than none, and the farther the better.

Delayed planting

If no Brassica crops are planted until mid to late July, this will stop the reproductive cycle because overwintered beetles will have no where to feed or reproduce (except on Brassica weeds). This strategy can be very effective in bringing the numbers down. Some mesclun growers use only non-Brassica greens in their mix until late summer. Depending on your markets, this strategy may require serious adjustments to the farm’s production and marketing plan – and may not be feasible. It is hard to imagine a successful farmstand or CSA farm with no Brassicas until fall.

Separate early and late crops

Let's assume that emergence of the summer generation of beetles from a spring crop begins in mid July. If there are young Brassicas close by, they will be heavily damaged. However, if fall Brassicas are seeded into an isolated, rotated field, beetle numbers will be low and the crop will suffer much less damage. Provide crops with good growing conditions. Research studies have shown that well-fertilized plants growing in good soil with adequate water are attacked less than plants that are wilted, poorly fed, or growing in compacted soil. While this may not overcome a large flea beetle population, it can make a difference in plant survival, growth and quality.

Use row covers

One of the best ways to protect Brassica crops from flea beetles is to place a floating row cover over the bed or row. In every pesticide trial conducted at UMass, the cleanest, highest quality greens are always those under row cover. For growers with relatively small (<1/2 acre) plantings row covers can be practical and cost-effective; however, they are a management-intensive system. It is critical to seal the edges immediately after seeding, because Brassica seeds germinate quickly and beetles rapidly find the cotyledons. Flea beetles can fit through extremely tiny cracks. Edges of the cover must be sealed on all sides using soil, black plastic bags filled with soil, or some other method. Occasionally growers leave a few uncovered plants at the end of the row and don't seal the ends of the row cover. The open crop attracts beetles to the bed, where they may crawl underneath the cover. Wide row covers have the advantage of protecting a larger area relative to the length of the edges. However, if there are raised beds, the furrow may have a large gap that allows entry. Make sure to weight the ends in the furrow. The weight of the row cover fabric should be considered. Heavier covers are more durable, an important factor, given the cost of row cover. They transmit less light, and provide more heating and more cold protection. Lower light transmission increases tenderness and length of the greens, which can be desirable. However, if heavier covers are used in midsummer, yield may be reduced. Non-heating, reinforced covers may be desirable for midsummer plantings. Weed control is another major issue with row covers. Preparing a stale seedbed before seeding, using flaming, cultivation or herbicide, will help delay weed emergence. We have also observed a compost mulch being used with success for intensively planted beds of greens. For conventional growers, preplant incorporated herbicide is an option. Even when weed control techniques are used prior to planting, covers may need to be removed for cultivation or hand hoeing. To minimize beetle entry, replace covers the same day.

Insecticides

There are a number of synthetic pyrethroids and carbamates which are labeled for flea beetle in Brassicas. (see the Cornell guidelines for specifics at <http://www.nysaes.cornell.edu/recommends/> or contact our office for the 2004 vegetable guidelines). For organic growers flea beetles are especially difficult because there have been no effective insecticides and many growers depend on succession-planted greens as a key part of their crop mix. However, insecticide trials at UMass and the CT Agricultural Experiment Station have provide some promising results. Thresholds for treatment will vary with Brassica species. One study in Colorado found that 5 or more flea beetles on seedling broccoli reduced subsequent head size. Cornell University and Rutgers University recommend a threshold of one flea beetle per plant on seedlings up to the 5 leaf stage, or injury and 1 beetle/plant on 50% of the stand.

Insecticide Trials

For the past three years we have conducted insecticide trials at the UMass Research farm with the goal of identifying low-risk and organic insecticides that will suppress or control flea beetles. We conducted these trials in 2002 and 2003, using Komatsuna, a *B. rapa* species that can be harvested for bunched greens five weeks after seeding. We used small replicated plots, with weekly spray applications. Flea beetle populations were high. Carbaryl (Sevin) was used as standard conventional insecticide, for comparison. Leaf damage (number of holes per plant) and plant weight at harvest and beetle counts were used to compare treatments. Results Carbaryl and row cover treatments had the lowest damage, and plant weights were significantly higher than the untreated controls for carbaryl in both years and for row cover in 2002. Kaolin (Surround, ½ lb/gal.) and pyrethrin (Pyganic EC 5.0, 16 oz/A) treatments had as much damage as the untreated control. Spinosad was tested in both the Spintor (5 oz/A) and the Entrust (1.5 oz/A) formulations. Both of these reduced leaf damage, although not as effectively as Sevin or row cover. This result was consistent in both years, although statistically only the final harvest in 2002 was not different from the control. The level of protection provided by spinosad, though far from perfect, is an encouraging result for organic growers because Entrust is allowed by the National Organic Program (NOP). Both are labeled for use in Brassica crops, although flea beetle is not listed as a target pest on the label. Thus it is legal to use Entrust in organic Brassica crops, and growers who use it can anticipate suppression of flea beetles and reduction of feeding damage. There is a limit of three applications allowed in a 30 day period. Capsaicin (Hot Pepper Wax, 8 oz/gal.) was tested in 2002 and reduced leaf damage as much as carbaryl and spinosad. Because this product is currently not allowed by the NOP we did not test this again in 2003. Provado was tested in 2001, and did not provide suppression in that trial. Similar experiments were conducted by Dr. Kim Stoner at the Connecticut Agricultural Experiment Station, comparing several organic treatments. Spinosad, pyganic and hot pepper wax all showed significantly less damage than the control. Spinosad, both Entrust and Spintor formulations, gave the highest levels of control. Pyganic was intermediate. Neem (Aza-direct) and insecticidal soap were no different from untreated plots.

Greenhouse: An interesting note about monitoring for insect damage in greenhouses (from Univ. of Maryland IPM Program). If you have good air circulation, you may want to check the benches closest to the air out-take vent first. If you do not have a screened in-take vent, the small insects may be pulled toward the out-take and take up residence there. Look for leaf feeding and be wary that if they set up shop they might be laying eggs.



Cyclamen mites are a real problem in greenhouses that grow New Guinea impatiens. This photo shows how the growing tip can be severely stunted and distorted. The dilemma is that this damage looks very similar to that of INSV and thrip damage. Materials used to control spider mites are not effective on cyclamen mites.

Photo 1. Cyclamen mite damage on New Guinea impatiens

A homeowner brought a diseased cineraria plant into the office this past week, and during the research for that problem, I discovered that in 2002 **cineraria** growers on Long Island found a new **rust** disease. The rust is *Puccinia lagenophorae*, originally from Australia but now found in Europe as well. According to the Cornell Floriculture website, www.greenhouse.cornell.edu, symptoms on cineraria are yellow patches covered with the aecia (shallow cups filled with spores) of the fungus; the leaf is often distorted because the infected areas are swollen. The rust fungus also infects groundsel, *Senecio vulgaris*. Cineraria growers should be especially careful to eliminate groundsel from the vicinity of their greenhouses to reduce the chance that this rust will be transmitted from the weed to the greenhouse flower crop. I have yet to see this in our area (the homeowner's plant did not have rust).



Photo 2: *Puccinia lagenophora*, cineraria rust pustules

Landscape: The heavy rains that we have experienced during the last 5 days have made herbicide applications pretty much ineffective and also has removed fertilizer from the root zone. As we approach one of the most important times for turf fertilization, all I can say is that if you were early with your Memorial day fertilizer, make sure that you apply again at the 4th of July, especially if you have sandy soil.

I have seen several samples of needlecast fungus diseases- **Rhabdocline (*Rhabdocline pseudotsugae*)** and **Swiss needlecast (*Phaeocryptus gaumanni*)**- which are problems in Douglas-fir. These two diseases cause premature needle loss resulting in trees with thin foliage. This condition adversely affects all Douglas-fir plantations, but is especially bad in Christmas tree plantations where thin-foliaged trees may not be salable. Look for early signs of Rhabdocline needlecast by examining current years needles. They develop small yellow spots in late fall or early winter. The yellow spots enlarge and by spring the needle spots are a yellowish brown to reddish brown. The discolored needles are cast in the spring after spore discharge. In *Swiss Needlecast* foliage symptoms include yellowing and browning of needles in late fall of the first year or during spring and summer of second year. Symptoms are most severe on older needles on lower branches. Diseased needles are often uniformly brown at the tips, but never mottled. Early season fungicides are necessary to control serious infections. Improve air movement around the tree with good weed control and by removing lower limbs.

Sincerely,

Aaron D. Gabriel
Extension Resource Educator
Crops and Soils