

**Washington County Ag Report
September 27, 2005**

Contributors are Sandy Buxton, Sandy Ferry, Aaron Gabriel, and Laura McDermott. Thanks to Connie Havens for compilation and formatting. **Special thanks to our dedicated weather watchers: Will Randles (Argyle), Don Skellie (Jackson), and Mike Radcliff (Lock 12, Whitehall).**

**“If you can not be a good example, then you will just have to be a horrible warning.”
-- Catherine Aird**

Announcements

October 5 – Flower Grower Program, Pioneer Gardens, Inc., Deerfield, Mass. 9:00 AM - 3:45 PM *Sponsored by: University of Massachusetts and Massachusetts Flower Growers Association.* The program will include a tour of Pioneer Gardens, full-day educational program and catered lunch. The morning session will focus on energy conservation and alternative fuel for greenhouse production. The afternoon session will include marketing, customer service and displaying for retail sales. There will also be a session on worker protection standards and what to expect from an inspector’s visit. Pioneer Gardens is a wholesale herbaceous perennial plant producer with forty acres of field-grown perennials and 72,000 sq.ft. of greenhouse perennial plug production, that produces more than 300 varieties of plants. Registration and Details: http://www.umass.edu/umext/floriculture/upcoming_events_archive/05_fall_mtg.htm. **If you would like to attend, please call Laura McDermott, 746-2560, ASAP. If there is enough interest we could ride-share in the CCE van.**

October 6, 2005 at 7 p.m., CCE Albany County, Voorheesville - **Ancient Forests in Modern Times.** Join Fred Breglia from Landis Arboretum and David Yarrow from Champion Trees to learn about the elder arbors that live in our area. Fred and David will share fascinating facts about the "old timers" including where they are and why they have been so successful at surviving. Please call Billie-Jo at 765-3512 by October 4th to register. Cost is \$10.

Friday, October 7-9, 2005 NYS Beef Tour has been CANCELED.

October 8 - NYS Nursery/Landscape Association Region 3 - Used Equipment Auction, held at HURB Landscaping, 4278 Albany St., Albany, NY 12205. An opportunity for members to buy and sell used equipment. Preview at 7:00 a.m., Auction starts at 8:00am. Sellers must register and get info on bringing items to sell. For more info contact: Jerry Parmenter 765-5002, or Brian Fleury at (518) 438-9823

October 20 - Raspberry High Tunnel Open House, 1 to 4 PM at Cornell University. For more information contact Cathy Heidenreich, mcm4@cornell.edu or call 315-787-2367

October 22 – Washington County Barn Tour, sponsored by Cornell Cooperative Extension. This event showcases several unique Washington County barns throughout the eastern side of the county. Please join us for this special day. Tickets are \$10/person.

Tuesday, Oct 25, 9:30 am – 3 p.m. – Field Crop Dealer Meeting – at Comfort Suites, 7 Northside Dr., Clifton Park. \$25 at the door. Cornell professors Bill Cox, Russ Hahn, Quirine Ketterings, Margaret Smith, and Jerry Cherney will give research updates for field crops.
Thursday, Dec. 8 – Eastern NY Expo: Alfalfa Production – at the Holiday Inn, Saratoga. More details coming.

November 10 – Greenhouse Tomato Conference, Tolland County Agricultural Center, 24 Hyde Ave (Route 30), Vernon CT *Sponsored by: University of Connecticut , University of Massachusetts, Northeast.* Topics include: Organic Greenhouse Production, Biocontrol of Insect Pests, Selecting the Best Structures, Environmental Controls and Energy Conservation Measures, Managing Light, Temperatures and Nutrients for Maximum Yields, Managing Greenhouse Tomato Diseases. For information and registration visit www.hort.uconn.edu/ipm/.

November 15-17 - Empire State Green Industries Show (formerly the Turf and Grounds Expo) Programs will be offered from the NYS Turfgrass Association, NYS Nursery/Landscape Association, NYS Arborist-ISA Chapter, Inc. and the NYS Flower Industries. Credits will be offered for courses; 41.25 DEC Category specific credits; 3.75 CORE credits; 2.05 GCSAA education points and 22.5 ISA continuing education units. Riverside Convention Center, Rochester, NY Contact: NYSTA (800) 873-TURF, www.nysta.org/greenshow/home/html.

December 13-15 – New England Vegetable and Berry Conference, Radisson Hotel in Manchester NH. The 3-day educational program on subjects pertaining to the production of fresh market vegetables and berries. Additional information on the New England Vegetable and Berry Conference and the New England Fruit Meeting, including downloadable registration material, may be found at <http://www.newenglandvfc.org/>. For more information, contact **Frank Mangan** (978) 422-6374, mangan@umext.umass.edu.

The Fall 2005 issue of the **Northeast Buckwheat Growers Association newsletter** is now online. <http://www.nysaes.cornell.edu/hort/faculty/bjorkman/buck/NL/905.html>

A CCE webpage on **manure spill response and prevention** is available at: <http://emergencypreparedness.cce.cornell.edu/topics/manure/>

For Your Information:

The Resource Guide for Organic Insect and Disease Management will be available to farmers on October 1st. It includes information on crop management practices in brassicas, cucurbits, lettuce, solanaceous crops and sweet corn plus fact sheets on a variety of pesticides for organic insect and disease management (Bt, copper, kaolin clay, neem, oils, etc.). Check for ordering information at: <http://www.nysaes.cornell.edu/pp/resourceguide/index.php>. A limited number of copies will be available for \$5 (plus \$4 shipping) from Gemma Osborne, Cornell University Communications Services, NYSAES, A117 Barton Laboratory, Geneva, NY 14456-0462. Phone 315-787-2248.

Weather Data – 2005 and average of 1999 - 2004

	Argyle		Easton		Whitehall		Jackson	
	2005	Average '99 – '04	2005	Average '99 – '04	2005	Average '99 – '04	2005	Average '03 – '04
Rain Past Week	0.72	0.90	1.10	1.33	0.27	1.42	0.70	1.04
So far this month	1.52	2.90	2.00	3.87	3.46	3.34	1.38	3.80
Total since April 1 st	23.90	23.45	20.52	21.38	21.80	24.30	22.30	15.65
GDD Base 41 Growing Degree Days = [hi temp + low temp]/2 - 41								
Past Week	156	148	161	150	197	161	145	127
Since April 1 st	4228	3893	4233	4043	4850	4264	4250	3908
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	100	99	108	106	137	107	93	95
Since April 1 st	2905	2647	2950	2787	3370	2920	2958	2686

Midwest Commodity Prices - from the Wall Street Journal

Corn per bushel	\$1.68/bu	Cotton Seed Meal per ton	\$140/ton
Soybean per bushel	5.32/bu	Corn Gluten Feed	51/ton
Hominy Feed per ton	41/ton	Wheat, soft white	3.54/bu
48% Soybean meal per ton	163/ton	Tallow per pound	.19/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.

Advertising accepted in accordance with rules of Cornell Cooperative Extension and subject to final determination of acceptability by the Executive Director. Advertising space is limited to subscribers only.

Trading Post

For Sale: New hydraulic hoses 3/8" with JIC ends 4' to 9' long, \$1/ ft.
JIC to 1/2" pipe fittings \$1 each. 495-0531

For Sale: Gathering chains for John Deere 1 and 2-row corn heads, used but good shape \$25 each. 495-0531

For Sale: Dion Forage Wagon with gear 16 ft. (2 beaters) \$3250.00, Kinzee 4-row corn planter w/monitor, insecticide boxes, no-till capability. \$3000.00. (802) 325-3478.

For Sale: Two New England style greenhouses are for sale from grower in Granville. First is 28'x72' 2nd is 17'x90'. Call 518-642-1367 for more information about these structures and other equipment.

DAIRY NOTES: We have had a few people approach us about being interested in us putting on a Spanish class to help employers, managers, and supervisors so they can be able to communicate better in Spanish. We are looking to find out how many people are interested in attending and where everyone lives so that we can try to set it up. Please contact either Sandy at 746-2560 or e-mail me, Sandy F. at slf10@cornell.edu if you are interested in attending.

FARM BUSINESS MANAGEMENT: Mark Stephenson from Cornell Dairy Policy program hasn't come out with his predictions yet but everybody seems to be a little mixed. There are fewer dairy products in storage coming out of the summer and CWT is about to put together another purchase of cattle and product. The hope is that this will provide the impetus to keep the prices up for awhile this fall and winter BUT as always that is hard to predict. Stay alert and plan your budget, you might be able to get ahead a little if you plan right.

For those that are interested, the milk check analysis is going to take place with September milk and the October milk check. This year they will be inputted locally and then the report will be compiled by Cornell University and Mark Stephenson (his time is being pinched so we are helping with the grunt work). Letters will be going out soon so keep watch if you want to participate!

CROPS

Soil Health: Frost tillage is a way to spread out tillage operations to the “off season” of the year. When bare soil is frozen to a depth of 1 – 4 inches (early and late winter usually), chisels and deep till implements can be used for tillage. The soil freezing at the surface dries out the soil underneath. You must check soil moisture to be sure that you are not smearing the unfrozen soil. It takes more horsepower to do frost tillage and the surface is left very rough. Secondary tillage in the spring is needed for seedbed preparation in the spring. The advantage of frost tillage is that it shifts the fieldwork load to a less busy time of year.

Copper and zinc are accumulating in our soils that have a history of manure and use of copper and zinc sulfate footbaths. Cornell researchers (E. Brock, Q. Kettering, and M McBride) studies several silt loam fields in Stueben County that had a history of receiving dairy and chicken manure. In brief, copper (Cu) and zinc (Zn) have been accumulating in the plow layer. These metals adhere to soil particles and do not readily leach out. So far, they have not accumulated to levels that would be toxic to plants. However, Cu and Zn become more available to plants at low soil pH (just like aluminum). These researchers are recommending that fields be tested for Cu and Zn every five years (using an “acid digestion” procedure) to monitor the impact of the farm management practices. Toxicity is a concern when Zn reaches 200 ppm and Cu reaches 100 ppm.

Cover Crops: How late can you plant winter rye? We recommend not past Oct. 15. But in a nice warm autumn, it will be okay until Nov. 1.

Alfalfa: I want to mention it one more time (well, I will say it several more times), that we ought to be thinking about doing deep tillage for alfalfa. Before a sod crop, deep tillage will help establish good soil tilth. Deep tillage before corn is simple to remedy soil compaction, which will get compacted again with the subsequent crop. If you are willing to try a strip or two of deep tillage in your next alfalfa planting, please give me a call. AG

Field Corn: Corn silage harvest is pretty much over, but you can use this idea next year or for haylage. When I heard it, I thought that it was a bright idea, maybe you already know it. But, to measure yields in small strips of test plots, chop forage directly into a mixer wagon with scales. I think that it is important for farmers to conduct their own field trials. This is one way to take a good measurement of yield.

Bill Cox (Cornell) has been keeping track of how many growing degree-days (GDD) it takes corn to develop from emergence to tasseling, and from tasseling to silage harvest maturity (65% - 70% moisture). He found that over the last three years, the GDD from emergence to tasseling is consistent for the different corn maturity groups as shown below. (There are 25 GDD in one day when the high temp is 86^oF and the low is 64^oF.)

Relative Maturity	GDD to Tasseling
96 – 100	1250 – 1285
101 – 105	1300 – 1330
106 – 110	1340 – 1370
111 – 115	1350 – 1405

However, the GDD from tasseling to harvest seems to be much more variable. The entire “What’s Cropping Up” newsletter article will be posted at:

<http://www.css.cornell.edu/extension/WCU/WhatsCroppingUpNewsletter.html>

Grasses: Too much growth going into the winter can set up fields for snow mold. The plants rot under a cover of snow in late winter when the air temperature is warm and there is still snow on the ground. So clip or graze grasses in the fall to a modest height. We still want a good ground cover.

Winter Wheat: Because soybean acreage is on the rise, Bill Cox and Phil Atkins (Cornell) are looking at winter wheat yields when wheat is planted in late October. Last year (nice autumn, snow cover, warm April, cool & dry May, warm June with rain) there was no difference in yields when winter wheat was planted on Oct. 29 compared to Sept. 21. A slightly higher seeding rate (2.4 bu/ac compared to the usual 2 bu/ac) was calculated for the later planting date. This study will continue for a couple of years.

Soybean Aphids: Fall Update (Julie Stavisky, Western NYS IPM Specialist) As soybeans have been nearing maturity, I have observed very few winged forms of the soybean aphid (SBA). In other years, winged forms of the SBA have been common by mid September. I've been watching buckthorn for winger aphids, too, though I have yet to see an aphid on buckthorn.

What would the appearance of winged forms of SBA tell us? Winged forms, or migrants, start to appear in the late summer or early fall when SBA are getting ready to move out of soybeans to their winter hide-outs. Migrating winged aphids fly to find buckthorn plants, where they lay eggs in the protected areas around the buds of buckthorn.

The movement of SBA in and out of fields can be indicative of future aphid infestations. By collecting SBA in suction traps in Illinois, researchers successfully predicted whether it would be a bad SBA year or a not-so-bad SBA year in 2003 and 2004. In the fall of 2002, they collected many winged SBA moving to buckthorn. They predicted high SBA populations in 2003. Nearly every soybean field was infested in 2003. In the fall of 2003, they collected very

few aphids in transit to winter homes. They speculated that SBA might be less numerous in 2004. Their speculation proved correct. Last fall, using results from suction trap collections, University of Illinois entomologists predicted high SBA populations for 2005. This prediction again was verified by widespread infestations of SBA in many parts of the Midwest. Another factor they consider when making these predictions is the numbers of predators, especially the multicolored Asian lady beetle. Large numbers of the lady beetle in the fall led to fewer SBA the following spring.

For more information about the suction trap network in Illinois, visit:

http://www.ipm.uiuc.edu/fieldcrops/insects/soybean_aphids/suction_trap_network/index.html

Although information gathered in the Midwest may not prove to be a predictor for SBA outbreaks in New York, we may be able to learn from our neighbors to the west, and make observations of our own regarding movement of winged SBA from soybean to buckthorn.

Weeds: (from Ken Wise, Eastern NY Field Crop IPM Specialist)

Do weeds indicate what insect pests may infest a cornfield next year?

Conducting a weed survey may identify conditions attractive to certain insect pests. Some weeds serve as over-wintering sites for common stalk borer, hop-vine borer, and potato stem borer. The black cutworm moth lays eggs on several species of weeds in the spring. Larvae of these insects migrate from weeds to emerging corn in the spring. Here are some weeds that attract these insect pests to certain fields:

<u>Insect Pest</u>	<u>Weeds</u>
Common stalk borer	ragweed and other large stemmed broadleaf weeds
Potato stem borer	quackgrass, green foxtail, barnyard grass, and dock
Hopvine borer	quackgrass and other grasses
Black cutworm	grasses, annual broadleaves such as common chickweed
Common billbug	yellow nutsedge

VEGETABLES – **Solonaceae** – **Late Blight** was found in a tomato field on the eastern border of Rensselaer County on September 22nd. Despite the fact that the season is winding down, we would still like to track the progression of this disease. If you see symptoms that look like late blight, please contact our office. We will come to take a look, gather samples and send them to the Diagnostic Lab for no charge. Late Blight appears on potato or tomato leaves as pale green, water-soaked spots, often beginning at leaf tips or edges. The leaf lesions are often surrounded by a pale yellowish-green border that merges with healthy tissue. Lesions grow quickly and within just a few days can turn dark brown to purplish-black all over the plant.

Keeping Your Potatoes Cool: A major problem noted in many storages over the years is allowing the temperature in the center of the potato piles to go into the 70's and sometimes the 80's. This often occurs when night temperatures are warm, in the 50's and lower 60's, and growers do not ventilate. Bringing cooler outside air into a storage and exhausting the warm air is necessary during the curing period to remove respiration and field heat and to supply oxygen. Temperatures above 60°F should not be allowed to build up within the pile. Check temperatures on the top and center of the piles. If these storage temperatures are above the temperature of the outside air, ventilate the storage. For most storages on Long Island, an exhaust fan is ideal for removing warm air from the top of the storage and bringing in cooler outside air. An exhaust fan should be sized at one-quarter cfm (cubic feet per minute). For example a 20,000 cwt storage

should have an exhaust fan rated at 5,000 cfm. (source: Long Island Fruit and Vegetable Update).

Indian Corn - Harvest by hand when the husk is dry. Break off ears with a quick downward motion. Spread the ears out to dry in a shallow pile where there is good air circulation and under cover if the weather has been damp. Pull the husk back if it is not completely dry at harvest to avoid mold growth. When husks and ears are dry, tie the ears together with twine or rubber bands in bunches of 2 – 3 around the base of the ears and allow them to dry in a warm, dark, airy place. **DO NOT** box or bag ears when they are first harvested or they may mold. Ears can be used for ornamental purposes after a week of drying. (adapted from Univ. of Kentucky fact sheet. source: OWYS Vegetable Update).

Brassica: Non-pathogenic disorders of broccoli: Brown bead, heat injury, hollow stem. As part of the Brassica project, we are working to gain a better understanding of these disorders. Each can be caused by a combination of factors – heat stress during head initiation, excessive water especially after a dry period, excessive nitrogen, rapid growth during head formation, deficiency of boron, and varietal susceptibility. Heat injury is most often manifest as unevenness of the crown and uneven bud size on the head, as well as small head size. Brown bead appears as heads approach maturity and is usually associated with rapid growth during periods of high temperature followed by abundant rainfall. Floral buds turn tan or brown and become easily detached. These may then become infected with soft rot bacteria, *Erwinia* species. Boron deficiency, which shows up as hollow stem of broccoli or cauliflower, brown discoloration of turnip or rutabaga roots, or internal discoloration of cauliflower, can be more severe if plants are water stressed or pH is greater than 7. Adequate supplies of soil organic matter, consistent and adequate water levels in the soil, and supplemental boron applied before planting if boron levels are low can all help in avoiding these problems. (written by: *R Hazzard, Bess Dicklow, A. Cavanagh, UMASS.*

Preparing for Next Year: Unfortunately, the fall is too short and all of our great work with season extension has made it even more challenging for growers to save time for the chores that might make next year a little easier, especially **soil nutrient management** and **weed control**. Now is the time to draw a weed map. This doesn't have to be a work of art, but rather a working document that lets you know where and what type of weeds need to be controlled. If you don't know what the weed is, get it identified. You should be able to put all weeds into classes: perennial broadleaves, perennial grasses, annual broadleaves and annual grasses. The density and type of weed will determine how you control it. For annual weeds the main focus should be to prevent weed seed production. For perennial weeds it will be to destroy the storage root. This can be done by tillage or a fall application of glyphosate before the first frost.

Time to Lime – Fall is the best time of year to apply finely ground limestone. The desirable pH for soils for vegetable production is 6.0 to 6.2. Low pH restricts the availability of phosphorous, increases the solubility of elements such as aluminum which are toxic at high levels, decreases the availability of molybdenum and boron and is usually associated with low levels of calcium and magnesium. On the other hand avoid pHs above 6.5 for most crops. High pHs can lead to zinc or manganese deficiencies in crops such as sweet corn, snap beans, spinach, beets, onions and tomatoes. The choice of dolomitic (high magnesium) calcitic (high calcium) limestone

depends mostly on whether magnesium is needed. Both dolomitic and calcitic limestone provides very little or no magnesium. It is recommended dolomitic limestone be used unless magnesium levels in the soil are high. If you don't want to increase the pH of the soil, Gypsum (calcium sulfate) is an option to increase calcium levels. Gypsum (calcium sulfate) supplies calcium, but will not neutralize acidity. For *organic growers*, any agricultural lime would be approved, as long as it is pure ground limestone and has nothing else added.

Soils Should be Tested a Minimum of Every Three Years – Complete nutrient soil test mailers are available at every Cornell Cooperative Extension office for \$10 plus postage. Soil pH test kits are also available for \$10.

Fall Cover Crops, Manure, Tillage, etc. There's still time this fall to plant a ryegrass cover crop. Ryegrass is a small-seeded, fine grass with an extensive root system that improves soil aggregation better than most. It can grow into compacted soils. Use 18 – 20 lbs./acre of ryegrass. Rye is notable in that it can be planted as late as mid-October. It may not make much growth this fall but can make up for that next spring. Plan to incorporate it next spring a few weeks before planting to avoid problems with seed maggots. Use 80– 10 lbs./acre. Cover crops DO make a difference in your soil health!

Vegetable growers are making more use of manure. It can be a significant source of plant nutrients in addition to improving soil health. Fall is the best time to apply it for a variety of reasons. First, you can avoid food safety concerns. Second, the additional time for breakdown of the organic matter in fresh or slurry manure will ensure that beneficial soil microorganisms are present when your crop is growing. Finally, raw manure can burn roots and leave them open to plant pathogens, a particular concern for root crops. Applying manure during tillage for cover crop planting will help prevent the loss of nitrogen. Fall's a good time to check for the presence of, and depth of, compacted layers. Compaction limits both the depth of crop rooting and the percolation of rainwater. Penetrometers are available for about \$250 or you can use a 1/2-inch diameter iron rod with a handle welded on. A dry fall may give you the opportunity to get some deep tillage done in those fields with plow layer or deeper compaction. A straight shank with no wings is recommended. If you're planning on zone tilling next spring note that fall's a good time for zone building. (written by Carol MacNeil, PestMinder)

ORNAMENTALS: The only major problem with the fall mum crop outside of a **delayed bloom** due to high early fall temperatures are **Serpentine leafminers**. We had homeowners bring in a few of these plants and it has been reported to have been a problem for large growers in the Mid-Atlantic region. This pest makes narrow mines that wind around on leaves. The tip of the leaf dies first and then it moves back toward stem. Early detection of the pest is the only way to prevent damage as the symptoms continue even after pest has been killed, so you need to prevent the mines from forming at all.

TURFGRASS: Broadleaf Weed Control: After the rains have returned, broadleaf weed herbicides should become effective. However, don't be in too much of a rush to apply because our data suggests that better control is obtained with October applications in than in September. Studies have shown that herbicides applied from October 1 through November 1 improved long-term ground ivy control compared to the same herbicides applied in September. It is possible that weeds are killed either directly by the herbicide when applied later in the fall or weakened to the

point that they succumb to winterkill. Herbicides applied earlier in the fall may allow the plant to recover and survive the winter. This was validated by researchers in Scottsbluff, NE, who found that applications of 2,4-D and/or dicamba were far more effective in controlling dandelions and Canada thistle when applied 1 to 10 days after the first frost than when applied 5 to 11 days before the frost. These researchers found that the herbicides indirectly reduced concentrations of total sugars, thus increasing the plants susceptibility to freezing temperatures and winterkill. Other studies have shown that even tough-to-control weeds can be controlled effectively in October and November with herbicides that would be considered marginal at other times of the year. Still another benefit in waiting until after the first frost is that germinating winter annuals like common chickweed and henbit will also be controlled. Applications made in September may miss some of these later-germinating winter annuals. To maximize success with any broadleaf herbicide, try to apply on a dry, warm (>55 degrees F), sunny day to maximize effect. (source: Week 27 Cornell ShortCUTT)

Sincerely,

Aaron D. Gabriel
Extension Resource Educator
Crops and Soils

We Need Your Response – 2005 “Ag Report” Evaluation

Please fill out this survey and return it by mail or email.

(Use the backside for additional comments.)

What commercial enterprise do you manage? (circle one or more)

Livestock Field Crops Vegetables Ornamentals/Turf Fruit None

How has the “Ag Report” helped you in your business?

Should we continue the “Washington County Ag Report” next year? YES NO

Did you receive the “Ag Report” by: EMAIL 1st CLASS MAIL

What suggestions do you have to improve its delivery?

How else can we improve the “Ag Report”?

What things do you want to learn about to improve your business?

Due to space constraints, CCE is exploring alternative office locations. One of the potential locations is the Washington County Fairgrounds as they also explore expanding their offices. What questions or concerns do you have about this potential office location, or any move in general? Do you have other potential locations/sites for us to consider?