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# Washington County Ag Report
# August 9, 2005

Contributors are Sandy Buxton, Sandy Ferry, Aaron Gabriel, and Laura McDermott. Thanks to Connie Havens for compilation and formatting.

**"It is my pleasure that my children are free and happy, and unrestrained by parental tyranny. Love is the chain whereby to bind a child to its parents." -- Abraham Lincoln**

## Announcements

**Tuesday August 16th, 2005 6:45 p.m. – 9 p.m. Equine Short Course in Dutchess County,** this course will introduce a statewide program for horse farms, the latest in micro-chipping technology and up-to-date information about the devastating disease, EPM (Equine Protozoal Myelitis). To Register: Phone: 845-677-8223, ext. 118 FAX: 845-677-6563. There is a $10 fee charged for this program.

**August 22-28, 2005 Washington County Fair** – make sure that you check out the exhibits, meet people including Sandy F. the new Dairy Educator, and take a minute to socialize and unwind!

**Thursday, September 8th – Coach Bus Trip to Wave Hill Gardens and Stone Barns Center for Food and Agriculture.** Sponsored by Master Gardeners of Washington County, but opened to the general public. Cost is $50/person for guided tours and transportation. Please call 746-2560 for more information on this trip, or check out our website at http://www.cce.cornell.edu/washington/washington.html. Registration is due by August 25th, but trip should fill quickly.

**FYI:**

**Suspicious Activity in Illinois** (from "Doane's AgProfessional Weekly") - "The Illinois Fertilizer and Chemical Association (IFCA) reports that several IFCA members in central and west central Illinois were contacted by a man who said he worked for the U.S. Army and needed to purchase ammonium nitrate in order to build test-bombs for the military. Three different IFCA members tried to pry additional information from the caller and one had caller ID and wrote down the number. These members contacted the sheriff's department and the IFCA. IFCA then called the state terrorism task force and ATF and the caller was identified and interviewed by these agencies. That is all they would tell us about the case, but they called the IFCA office to ask us to relay thanks to our industry for continuing to be so vigilant about reporting suspicious activity." (We do not need to "freak out", but we do need to use common sense and be vigilant. AG)

**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 | **0.15** | 1.01 | **0.00** | 0.73 | **0.21** | 0.93 | **0.00** | 1.16 |
| So far this month | **0.15** | 1.29 | **0.35** | 1.06 | **0.21** | 1.20 | **0.00** | 2.11 |
| Total since April 1st | **15.33** | 16.01 | **14.97** | 15.95 | **15.91** | 16.69 | **15.57** | 11.13 |
| **GDD Base 41** Growing Degree Days = [hi temp + low temp]/2 – 41 | | | | | | | | |
| Past Week | **255** | 223 | **245** | 223 | **270** | 233 | **251** | 216 |
| Since April 1st | **2830** | 2652 | **2856** | 2728 | **3278** | 2928 | **2895** | 2694 |
| **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 | **179** | 156 | **170** | 154 | **190** | 167 | **172** | 144 |
| Since April 1st | **1942** | 1812 | **1998** | 1879 | **2254** | 2008 | **2034** | 1860 |

**Midwest Commodity Prices - from the Wall Street Journal**

| | | | |
|---|---|---|---|
| Corn per bushel | $2.02/bu | Cotton Seed Meal per ton | $148ton |
| Soybean per bushel | 6.57/bu | Corn Gluten Feed | 52/ton |
| Hominy Feed per ton | 44/ton | Wheat, soft white | 3.6/bu |
| 48% Soybean meal per ton | 214/ton | Tallow per pound | /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.

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## Trading Post

**Welder with Welder on Wheels, your yard or on the spot. Anytime, Anywhere. 747-9180. Low Rates.**

**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

**DAIRY NOTES:** I would like to thank Chambers Valley Farms for hosting the dairy tour last week. We had a good turnout and I enjoyed seeing some of you again and meeting more Washington County farmers. The dairy tour provided a good chance for people to be able to get together and see a farm that they have not been able to see the changes occur from the road.

The fair is fast approaching and the weather does not seem to be relenting. Make sure that you have plenty of fans to keep your cows cool at the fair. I am looking forward to seeing the great animals exhibited at the fair and to meet more of you.

**FARM BUSINESS MANAGEMENT:** The Dairy Tour at Chambers Valley Farms, Inc. last week was a nice little "commercial break" for producers. Though it is frequently challenging to take the time and visit other operations or hear different ideas, it can be very beneficial to looking at your own operation with new eyes. Imagine that you came to your farm for the first time, get out and walk around, look at everything. Now start and think about how cows move around your facility, equipment around the farmstead, and how the flow works. The trick is to do this without the automatic explanations or excuses about why it is done this current way. Take a look and see if you see anything surprising.

**CROPS**

**Soil Health:** One of the best soil health instruments is a shovel. Dig down in your fields. Look at root condition and for hardpan layers. How far down are your roots growing?

**Alfalfa:** Should we maintain a 30-day cutting schedule for alfalfa in drought? (Edited comments from Jerry Cherney) Here is what to consider. For stand longevity, it is the cutting interval between the last two cuts that matters the most. You need a good 6 to 7 weeks between the last two cuts. The earlier cutting intervals can be shorter, especially if the alfalfa has already gone to bud or flower before the normal 30-day interval.

"There have been past debates about whether or not to just clip off alfalfa that is flowering, but too short to justify a harvest. Most have concluded that it would not need to be clipped off to stimulate regrowth, once moisture returns, regrowth will happen if clipped or not." However, if you do not clip it, regrowth will not begin until the plants have gone through their reproductive stage (flower, set seed, seed maturation). So, I (Aaron) think that clipping drought stunted alfalfa will speed regrowth once moisture comes.

**How much rain do we need to ensure a successful summer seeding?** Some folks are wisely and patiently waiting for rain before they summer seed hay fields. Below is a table I printed in the 7/19 "Ag Report", which shows "*available"* water storage capacity in a foot of soil. Since our soils are **bone dry (for a depth of 18" or so)**, we need rain to get them up to the minimum available moisture, then more rain to get then up to full available moisture. So, as a hip shot, I would say to look at the inches of "available water" for a particular soil in the table below, then double it, and that is how much rain we need to get near maximum available moisture in the top foot.

| Table 2. Total Available Water of Various Soils (At "Field Capacity") | |
|---|---|
| Soil Class | Available water storage capacity in acre-inches of water per foot depth of soil |
| Gravelly sandy loams | 0.8 – 1.3 |
| Sandy loams | 1.2 – 1.5 |
| Gravelly loams and gravelly silt loams | 1.5 – 2.0 |
| Loams and silt loams | 1.75 – 2.25 |
| Silty clay loams | 1.8 – 2.0 |
| Organic soils ("muck") | 2.0 – 4.0 |

**Field Corn:** Some corn is looking very drought stressed. In another drought stricken area, a farmer was encouraged to start chopping corn now. I cut up a wilted corn plant and could still squeeze out juice with my fingers quite easily. That is a pretty crude moisture test, but I do not think that we are at the proper moisture for chopping. Which brings me to my next point, **buy a forage moisture tester if you do not already have one.** Three common testers are a Koster Tester, a microwave oven, and a metal spaghetti strainer on top of a hot air popcorn popper. You will also need a dietetic or postal scale that measures in single grams. The only way to properly determine whole plant moisture is to chop several plants and test a sample. Moisture at harvest has a *HUGE* influence on fermentation. With our large corn crop, let's get it stored properly. Otherwise you will have a year or more feed supply that will be difficult to feed at best, and very unhealthy for the cows at the worst. Get what you need now to measure harvest moisture and take the time to sample and measure the moisture in each feed. It may be a very tricky year predicting harvest moisture. Say it takes 30 minutes at $50/hr for your time and effort to take and measure a sample. This management information is well worth the value of one ton of corn silage.

**Grasses:** Orchardgrass looks only fair. The tips have died back. Other grasses are holding on and looking green despite the dryness, but not growing.

**Pasture:** Faculty at the University of Massachusetts are writing a proposal to the USDA to establish a **"USDA-ARS Pasture Research Center for New England and Eastern New York"** to be housed at the UMASS Crops and Animal Research and Education Center (CAREC) n South Deerfield, MA. The proposed theme for this facility is the "ecology and management of short-season grass-based multi-species grazing and mixed farming systems. I was invited to an August 15 meeting at UMASS to help develop the full proposal. I will not be able to attend, but if you have comments or suggestions, please give them to me so that I can pass them on to the committee. The committee is looking for grass-roots input on the need for this center; research needs in the area of grazing; and methods of collaboration and outreach for this region. Please give me (Aaron) your comments.

**Grains: Soybean Rust spores are predicted to arrive in extreme southern New York this week.**
(from "Doane's AgProfessional Weekly") Doane economists are forecasting a sharp decline in the national average corn yield from a year ago, to 135.4 bushels per acre, for a total crop of

10.031 billion bushels. This is a 25-bushel-per-acre (16%) decline in yield and nearly a 1.8 billion-bushel (15%) cut in production from a year ago.

Doane is forecasting a national average soybean yield of 38.7 bushels per acre for total 2005 soybean production of 2.79 billion bushels (assuming normal weather from here on, which is not likely). This is 3.8 bushels per acre less than last year's 42.5 bushel-per-acre record yield.

**Weeds: Glyphosate (Roundup) -Resistant Weeds** (from "Doane's AgProfessional Weekly") The most recent confirmed case of a glyphosate resistant weed population is of marestail (horseweed) in California. Along with the US, this resistant weed is present in China, Spain, and South Africa. Glyphosate-resistant common ragweed was recently confirmed in Missouri and Arkansas, while giant ragweed is being tested for resistance in Indiana and Arkansas, and palmer pigweed is being tested for resistance in Georgia.

Here in Washington County, we have weeds resistant to atrazine. To avoid these serious problems of weed resistance to herbicides, we must rotate the herbicides we use, rather than using the same one(s) each year. In the long term, it is cheaper to use what may be more expensive herbicides every couple of years, and not the lowest cost ones each year.

**VEGETABLES – Solanaceae:** This week I found two-spotted spider mites in eggplants in the southern part of the county. I have no doubt that they are present in many fields throughout our county because of the hot dry weather that we have been experiencing. Spider mites can infest many different crops including tomato, peppers, cucurbits and beans. According to the Rutgers Extension, focus your scouting efforts on the edges of the field near hedgerows or those bordered by soybeans. Look under the leaves and at the base of the leaf for white stippling. I find that a hand lens really helps to actually see the insect. If you see a bronzing or discoloration and webbing you know that the population is high. At this point it is very difficult to achieve reasonable control – another reason that scouting early would payoff

We had several **tomato hornworm larvae** brought in to the office last week – they really alarm the first time gardener! This explanation of some of the white bumps might be of interest to those of you that have seen these insects before. **WHAT ARE THOSE WHITE THINGS ON TOMATO HORNWORMS?** (from the Vermont Vegetable and Berry News - August 15, 2005) Tomato hornworm larvae are parasitized by a number of insects. One of the most common is a small braconid wasp, Cotesia congregatus. Larvae that hatch from wasp eggs laid on the hornworm feed on the inside of the hornworm until the wasp is ready to pupate. The cocoons appear as many small white projections protruding from the hornworm's body. Parasitized hornworms should be left in the field to conserve the beneficial parasitoids. The wasps will kill the hornworms when they emerge from the cocoons and will seek out other hornworms to parasitize.

**Sweet corn: What's wrong with my corn?** Written by Steve Reiners, Associate Professor, Cornell University.

Sweet corn growers are well aware of symptoms associated with diseases like Stewart's Wilt, Common Rust or Smut, but many symptoms seen every year are not caused by a pathogen. Many are due to environmental conditions and are called physiological or abiotic problems. Some of the most common problems include:

**SPIKED LEAVES –** Plants from dry fields show the typical rolling with spiky looking leaves that give plants more of the appearance of pineapples than sweet corn. In older plants, dry soil will also limit nitrogen uptake and give plants a dull green color on young foliage and yellow to brown older leaves.

**SUNSCALD –** Temperatures exceeding 95F with low humidity and inadequate soil moisture, and dry winds, can lead to leaves yellowing then rolling and bleaching. Sunscald varies greatly by variety.

**EXCESSIVE LEAF WAX** – This condition has been seen in hot, dry years in New York. The plant produces greater amounts of wax than is normal in an attempt to minimize water loss through its leaves. This is normally due to high temperatures but any stress can cause some varieties to produce a waxier leaf.

**POOR TIP FILL and MISSING KERNELS -** Usually related to poor pollination due to excessive heat and drought. Irrigation at the optimum time, when plants are silking and ears just developing, is critical. Any insect that feeds on the silks can affect pollination and the final ear quality. High plant populations and low fertility may also cause the problem. Varies very much by variety.

**BARREN STALKS –** Differs from poor tip fill or missing kernels in that no ears are produced on the plant. Often related to high plant populations or very low fertility. Barley Yellow Dwarf virus may be associated with barren stalks. Look for red or yellow streaking on leaves as a symptom of the virus.

**BUGGY WHIP-** Also known as "onion leafing", in which leaves remain wrapped in a spike. Usually associated with 2,4-D injury, but plants that have a difficult time emerging through a thick soil crust may also show this effect.

**TASSEL EARS -** A normal looking ear has a tassel growing from its end. Usually only a few plants will show this odd trait and its cause, although likely genetic, is not known for sure.

**EXPOSED EAR TIPS –** Usually variety related but may be worse in years with dry conditions at silking and kernel set followed by rainfall and optimum growing conditions.

**BIRDS BEGONE,** written by Stephen Clegg, Four Town Farm, Seekonk, MA
Bird damage in corn is one of our biggest problems. As with other crops, we have settled on a combination of scare-eye balloons and distress call speakers. With corn however, you need to increase the number of balloons to 14 to 16 per acre. To suspend the balloons above the corn, we use a ten-foot piece of rebar bent at a 35-degree angle, two feet from the top. Over this we slip a four-foot length of 3/4-inch PVC pipe with the balloon suspended from the top of the PVC. The PVC pipe gets the balloon up higher and allows you to easily remove the balloon from the rebar for storage. Obviously, you can't put these out until you are done spraying, approximately a week to ten days before harvest.

When all else fails, we fall back on hand held pistols that fire off either a screamer or a banger. These will get them all out for 15 minutes or so, but then they start drifting back. Our final resort is to put someone on a tractor and have them drive up and down the spray rows all day. This sounds expensive, but with retail corn in Massachusetts approaching $5 a dozen, this only amounts to about two dozen an hour. We only find this necessary to do about one week out of every year.

I am not a salesman for the scare-eye balloons, but we have tried everything under the sun and overall, these work the best for us. Although they are time consuming to set up and awkward as far as spraying is concerned, we will continue to use them in the foreseeable future.

**ELECTRONIC BIRD REPELLER FOR SWEET CORN-BIRD GUARD PLUS**
Michael R. Pillmeier, Pillmeier Produce Farm, Florida, New York

As a relative new comer to the sweet corn producing industry I was experiencing problems with bird destruction at the time corn was ready for picking. Initially I purchased one Bird guard Pro-Plus, and was so impressed with the results the first year that I purchased a second machine for the next growing season. I find I get the best results when setting up the machines in the fields at least a week to ten days before the sweet corn is mature. This past growing season on a trial basis, I used a wind driven bird repeller in conjunction with the electronic machines and also had good results.

**Crucifers:** I have seen Cabbage looper in broccoli in the southern part of the county. Cabbage Looper is a migratory pest, but it does not follow a clear pattern of arrival like some of the sweet corn pests. Look for damage on the underside of leaves – they are small "window-paning" holes Looper larvae are little inchworms. They are the most destructive of all the cabbage larvae. The other two caterpillars which may also be causing damage are Diamondback and Cabbage moths. Diamond back and cabbage looper moths are nocturnal, so if you see moths in the daytime they are the cabbage butterflies.

**Cucurbits: FACTORS INFLUENCING FRUIT SET.** Written by H. Chris Wien, Professor, Cornell University

Like many of the vine crops, pumpkins and gourds have separate male and female flowers, so pollen must be transferred from male to female blossoms to allow fruit set to take place. The primary agent of pollen transfer is several types of bees, that visit the flowers looking for nectar and pollen to store in their nests. Under New York field conditions, honeybees are common pollinators, either from wild colonies, or from hives that a grower would set up. Hive rental is recommended for fields of 10 acres or larger, and should be used at the rate of 1 to 3 hives per acre.

The native squash bee plays an important role in setting fruits of pumpkin and squash. These bees build nests in the ground, and emerge about the time that pumpkins start to flower each year. Both male and female squash bees visit the flowers, and can frequently be seen visiting

flowers early in the morning, before honey bees become active. Nests are found in field border areas, at edge of woods, and should be protected from field operations.

No matter which insect carries the pollen from the male to the female flower, around 2000 pollen grains need to be deposited on the pistil for maximum chance of success in fruit setting. From eight to 10 bee visits provide enough pollen, but these have to occur between dawn and around noon, when the flowers close.

The weather also can affect the success of the fruit set process. For example, on rainy mornings, bees tend not to be active, and the cup of the female flower may fill up with water, literally washing out the pollination process. In hot weather, fruit set percentage may also be low, although we have little exact information on what is happening. Prolonged hot weather will prevent proper development of female flowers in some varieties, leading to delayed fruit formation in hot locations. Day temperatures in the 90's, followed by night temperatures in the 70's for more than a week are enough to cause this disorder in 'Howden'. In the Northeast, the temperatures are seldom hot enough for a long enough period to prevent successful fruit set in time for the pumpkin season, but this could be a common problem in the Southern US. Breeders are working to develop new varieties with greater tolerance to hot weather.

**Foliar Analyses For Small and Tree Fruit:** ***Strawberries:*** Sample the first fully expanded leaves after renovation or within the first 6 weeks after harvest. ***Raspberries:*** Sample healthy leaves on non-fruiting canes between August 1 - 20. ***Blueberries:*** Sample healthy leaves between July 1st and August 30th. *Tree Fruits:* Select leaves from similar age trees between July 1 and August 15th. In all cases, select healthy leaves, well exposed to light, representing the average condition of the planting and undamaged by disease, insects, weather or mechanical injury. AVOID mixing leaves from different cultivars. DO NOT mix leaves from plants of different ages. At least 30 leaves are needed per sample, preferably selected from different plants within the sampled area. For an accurate nutrient recommendation, include results of a recent pH test. The cost of the test is $28 per sample. For more information call the Nutrient Lab at Cornell at 607-255-4540 or you can call our office. We have a few kits remaining that we can send or you can pick up in the office.

**Ornamentals: Black Vine Weevil** is commonly seen as a pest on rhododendrons but this year in the mid-Atlantic the weevil is a real problem on lily of the valley, Astilbe and Heuchera. Keep a lookout for notched leaf margins which is caused by adult weevil feeding. The larvae can also feed on the roots. The adults will notch the margin of leaves. Adults can be controlled with applications of Acephate (Orthene), or bifenthrin (Talstar). Larval control can be obtained with soil applications of bifentrhin (Talstar), imidacloprid (Marathon), or Hb strain of entomo-pathogenic nematodes.

**Petunias dying in landscape beds – A problem your customers might be having in the landscape.** (Editors note: This article appeared in TPM/IPM Report Weekly Report from the University of Maryland Cooperative Extension. It was of particular interest because of lots of problems with petunias in our area. Most of what I was seeing I have been blaming on **Powdery mildew**, but we haven't sent any to the lab yet to really find out what the problem is.)

Large beds of wave petunia are dying rapidly in the last 2 weeks. **Several diseases are active on Petunias, so lab exams are needed to differentiate.** This week the Plant Diagnostic Lab had specimens of Petunia, both Wave and other varieties from landscapes dying from ***Phytophthora parasitica*** **blight**. Hot, wet weather is favorable for this disease. Three other diseases that could be confused with this are:
1 –**Southern Blight** – fungus *Sclerotium rolfsii*. Look for small spherical sclerotia and conspicuous white mycelium on mulch, and on stems at soil line and growing upward on stems.
2 – **Rhizoctonia web blight** –fungus *Rhizoctonia solani*. Look for fine, wispy, tan mycelium (especially in early morning before dew has dried) that is causing above ground plant parts to "melt down" and that sticks the dying plant parts together.
3 – **White mold** – fungus *Sclerotinia sclerotiorum*. Look for white mycelium fluffing out of stems of wilting plants and the formation of dark, lumpy sclerotia (about the size of a sunflower seed).
Once you have this disease in the landscape, it will persist in the soil and come back to blight any susceptible plants the next year. Some managers have had good results with treating with fungicide and re-planting the site. This requires that they catch it early and can obtain replacement plants. Fungicides that can help control *Phytophthora* include SubdueMaxx; Alliette; Terrazole, Alude; Heritage and Compass. It is wise to give the bed a rest from susceptible crops for a few years. Some plants that are NOT reported to be susceptible to *Phytophthora parasitica* include: Impatiens, Begonia, Chrysanthemum, Coreopsis, Dianthus, Geranium, Phlox, Portulaca, Rudbeckia, Verbena, Zinnia. These could be used to follow a Phytophthora blight of petunias. Plants that are reported to be blighted by Phytophthora parasitica include: Tomato, tobacco, pepper, pansy, Madagascar periwinkle (*Catharanthus*), and Petunia. These should NOT follow one another in landscape beds. Once you have had blight from *Phytophthora*, you should rotate the bed out of susceptible crops for several years.

**Turfgrass:** (From Dr. Frank Rossi's ShortCUTT e-newsletter)
Crabgrass plants continue to grow in size with adequate rainfall and high temperature. Most plants are larger than what can be controlled with the one application of Acclaim at the highest rate. Outside NY Drive remains the best option. In NY, multiple applications of the high rate of Acclaim or MSMA applied to actively growing plants could provide some relief. Also, any crabgrass plants that germinate from this point forward are not likely to produce seed and could serve as a means of depleting the crabgrass seedbank.

**Preparing Sports Turf for Fall Season:**
Summer does not offer ideal weather conditions for improving sports turf for the fall season but adequate rainfall this year should have allowed for some improvements regarding fertilizer applications, coring and overseeding. What is often referred to as pre-stress conditioning is essential for maintaining s safe turf this fall when soccer and football season begins. Letting the turf go for extended periods unmown, not taking advantage of rainfall to apply slow release or natural organic fertilizers, and not conducting some form of cultivation and overseeding are all missed opportunities that will leave the turf less stress tolerant this fall. It is not too late, consider some action now before the dog days of August begin.

Sincerely,

Aaron D. Gabriel
Extension Resource Educator
Crops and Soils