Vegetables

Vegetable Insects - Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

Melons.
Continue to scout all melons for aphids, cucumber beetles, and spider mites. Economic levels of melon aphids have been detected and spider mite populations are building in a few fields. The threshold for mites is 20-30% infested crowns with 1-2 mites per leaf. Capture, Danitol, Agri-Mek or Kelthane will provide control, but should be rotated to avoid the development of resistance. The treatment threshold for aphids is 20% infested plants with at least 5 aphids per leaf. Fulfill, Lannate and Thiodan are labeled on melons and will provide melon aphid control. You should also watch carefully for cucumber beetles.

For growers transplanting some or all of their vine crops, the following article from Dr. Shelby Fleischer, entomologist of Penn State University, explains the rates for treating flats. "To control cucumber beetle invasion at transplanting, we recommend using Admire at a very low rate (0.02 ml/plant) to treat transplants about 1 day prior to planting in the field. To treat a flat of 200 transplants with Admire at this rate, a grower would need to dilute 4 ml (0.135 fl oz) of Admire in a volume of water sufficient to soak the soil mix evenly. This treatment will protect the plants for a short period of time (about 2 weeks) and after that should be followed by field application.

[Water plants lightly after application to avoid leaching insecticide out of the media.] To help make other conversions, just multiply 0.02 ml per plant times the number of plants in your flat. For example, use 20 ml (0.7 fl oz) to treat 1000 transplants. (This rate is just a little higher than suggested for tomato transplants, which is 15 ml [or 0.5 fl oz] per 1000 transplants.) You can convert ml to fl oz by dividing ml by 29.6 (there is 29.6 ml in one fl oz). Be careful of burning the plants at higher rates. We observed burning of leaf margins at 0.04 ml/melon plant at the 2-leaf stage, although these plants did grow out of this in about 2 weeks."

Seed Corn maggot continues to be a problem in recently transplanted melons. Before transplanting, a broadcast application of diazinon should be incorporated 3 inches deep. The use of Admire or Platinum as a drip irrigation injection treatment has helped to reduce problems from seed corn maggot.

Peas.
Continue to sample for aphids. A treatment will be needed if you find 5-10 aphids per plant or 50 or more aphids per sweep. Dimethoate or Lannate will provide aphid control. Be sure to check the labels for application restrictions during bloom.

Peppers.
Since pepper transplants were set out last week, you should be sure to watch for thrips and corn borer activity. In years when corn planting is delayed, we often find corn borer larvae entering
the petioles and main stems. Watch for egg masses and small larvae as well as check local moth catches in your area. Although no threshold has been established, a treatment with a pyrethroid may be needed if corn borer moth catches reach 10 moths per night, especially if you are using rye strips as wind breaks. We have also seen corn borer larvae move out of rye strips and attack tomatoes. In general, 2 applications of a pyrethroid will be needed to achieve effective control. Thrips can cause damage in peppers by vectoring tomato spotted wilt virus and by causing direct plant damage. Although there are no available thresholds, a treatment may be needed if you see populations increasing. Baythroid, Capture, Spintor and Warrior will provide thrips control.

**Potatoes.**

Colorado potato beetle (CPB) adults, egg masses and the first small larvae can still be found in earliest emerged fields where an at-planting CPB material was not used. A treatment should not be needed for adults until you find 25 beetles per 50 plants and defoliation has reached the 10% level. Once larvae are detected, the threshold is 4 small larvae per plant or 1.5 large larvae per plant. Actara, cryloite, Spintor or Provado will provide control. Corn borer catches remain light; however ECB egg masses can be found in the earliest planted potatoes. A corn borer spray may be needed 3-5 days after an increase in trap catches or when we reach 700-degree days (base 50). Be sure to check our website [http://www.udel.edu/IPM/traps/latestblt.html](http://www.udel.edu/IPM/traps/latestblt.html) for the most recent moth catches in your area. Ambush, Baythroid, Furadan, Penncap, Pounce or Spintor will provide control. If you are scouting for infested terminals, the first treatment should be applied when 20-25% of the terminals are infested. Furadan or Monitor will provide the best control if you are waiting until you see infested terminals. Potato leafhoppers populations remain light. As a general guideline, controls should be applied if you find ½ to one adult per sweep and/or one nymph per every 10 leaves. A pyrethroid, Actara or Provado will provide control. With the cooler weather, we have also seen an increase in potato aphid populations. Although we have rarely sprayed for potato aphids, the treatment threshold for aphids is 2 per leaf. Provado, Monitor or Fulfill will provide aphid control.

**Sweet Corn.**

Flea beetles and cutworms are still active in seedling stage sweet corn. The treatment threshold for flea beetles is 5% infested plants. The cutworm threshold is 3% cut plants or 10% leaf feeding. Continue to sample any corn in the whorl stage for European corn borer larvae. A treatment should be applied if 15% of the plants are infested. In recent years, Baythroid, Mustang, Penncap or Warrior have provided effective control.

**Cool Temperatures and Wilting Transplants**

*Tracy Wootten, Extension Associate – Vegetable Crops, wootten@udel.edu; Derby Walker, Extension Agricultural Agent, derby@udel.edu*

There have been numerous calls concerning wilting transplants in the field. Weather conditions have not been favorable for plant growth. Beginning May 1, there have been only 4 days out of 21 days that the average air temperature was greater than 65°F. The minimum temperature for watermelon growth is 65°F, with optimum temperatures for growth at 70-85°F.

This growing season has not been forgiving. Under the current growing conditions, even strong transplants would have a tough time becoming established in the field. Last week we mentioned transplants that were wilting from being planted too shallow with inadequate soil coverage of the plug mix. Other observations since then include: root balls that were damaged as they were pulled from the trays at planting, leaving a smaller, damaged root system; plants are leggy with too much plant at the top for the root system to keep up; and some transplants may have been planted in the field too early, before the root system can support the plant under field conditions.
Transplants are also wilting from being planted too deep or are submerged in water. Some transplants have been planted up to the cotyledon leaves. This can happen when the soil is over saturated at planting or if you try to compensate for some of the leggy transplants that have resulted from the cool, cloudy weather during transplant production. In a dry year, these transplants would probably have been fine, but are too deep in a wet year. Cucurbits will not form roots on the stem as tomatoes will. Thus, the extra wet soil around the stem induces extra stress on the plant, leading to reduced oxygen and possible disease infection. Watermelons can not tolerate wet conditions for an extended period of time. They do not like to have “wet feet”. Roots become starved for oxygen and eventually die. Problems seemed to be more severe in heavier soils that do not drain well. Even high, sandy areas have been too wet after the large rain we received.

What to do? Planting in these conditions can be tricky. People transplanting should adjust their planting depth to current soil conditions. This may mean planting at a shallower depth in the low areas, but still covering the plug mix. The science of transplanting is getting enough soil around the transplant to keep it from popping out of the ground. The art of transplanting is not getting too much soil around the plant to suffocate it. The amount of water delivered to each transplant may also need to be adjusted.

So far this season, we have experienced transplants infected with seed corn maggot, plants with discoloration of the roots or stems indicating possible disease infection, or otherwise healthy plants that have wilted. No insects are present or no obvious symptoms of disease (discoloration of the roots or stem). Plants have a strong stem with collapsed leaves. The growing point is still active. If there is discoloration of the roots or stems, plants should be examined for seed corn maggot damage or possible disease. See related article under Vegetable Diseases.

When to replant? Our current recommendation would be to wait until we receive warm, sunny weather. Current transplants have wilted leaves with the next true leaf emerging. There is no way of knowing at this time which plants will recover. Unless the weather changes, any transplants placed in the field at this time with sit until we do receive better growing conditions.
Air Temperatures (°F) May 1-21, 2003

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* Weather data taken from the weather station at the UD Research & Education Center, Georgetown, Delaware

Approximate Monthly Temperatures (°F) for Best Growth and Quality of Vegetable Crops

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60-70  60-75  65-75  70-75  70-85
50     50     50     65     65
80     95     90     80     95
Lima Bean, Snap Bean Sweet Corn, Southern Pea Pumpkin, Squash Cucumber, Musk melon Sweet Pepper, Tomato Eggplant, Hot Pepper, Okra, Sweet Potato, Watermelon


Vegetable Crop Diseases – Kate Everts, Extension Plant Pathologist University of Maryland and Delaware, everts@udel.edu

Pythium Damping-Off in Watermelon
Post-emergence damping off caused by Pythium is not a common problem on Delmarva in watermelon; however, the cool wet conditions that have prevailed this spring can be conducive to damping-off. Symptoms of Pythium damping-off are water-soaked lesions on the stems followed by rapid collapse of the plant (24 – 48 hours). Chlorosis of the leaves may proceed wilting, but are not always present. Infected stems are limp, not turgid (stiff) and the disease begins in low parts of the field.

Our lab has not seen any Pythium-infected plants yet this year. If Pythium becomes a problem, the only post-plant options for control are mfenoxam-based products (Ridomil Gold EC or Ultra Flourish). These products are labeled for delivery through the drip line however; delivery of the chemical is problematic because both Ridomil and Ultra Flourish must be taken up by the plant to be effective. Currently existing root systems are small and may be far from the drip tube. In addition, in saturated soil, the fungicide may not
move toward the plant, and the plant may not be rapidly taking up water (and mefenoxam). However, for growers that need Pythium damping-off control, apply mefenoxam (Ridomil Gold 4 E 1-2 pt/A or Ultra Flourish RE, 2-4 pt/A) through the drip and calculate the rate based on a banded application.

**Scab on Muskmelon or Watermelon.**
The cool wet weather we are experiencing is highly conducive to development of scab on melons, watermelons and cucurbits that don’t have tolerance. Disease is spread when temperatures fall below 70°F, and at temperatures of 63°F or below, vine tips may be killed. Look for water-soaked lesions that turn grey to white and develop a shot-holed appearance, sometimes surrounded by a chlorotic halo. Stems and petioles develop white to tan sunken lesions. The disease may deform young leaves. Apply chlorothalonil (Bravo, Echo, Equus, 2-3 pt 6F/A or other labeled formulation) as soon as possible. If conditions that are conducive for disease development continue, reapply in 5-7 days.

**Bacterial Speck on Tomatoes**
Low temperatures (64°F-75°F) and high moisture favor bacterial speck on tomatoes. Lesions on leaves are small, dark brown to black, and develop a yellow halo. Spots may coalesce killing large areas of the leaf. Fruit can also be infected. Apply the following on a 7-day schedule: fixed copper at 1 lb active ingredient/A plus mancozeb (Dithane, Manex II, Manzate or Pencozeb) at 1.5 lb 75 WP/A or use ManKocide 2.6 to 5.3 lb 61 WP/A.

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**Section 18 for Reflex in Snap Beans** - Mark VanGessel, Extension Weed Specialist, mjv@udel.edu

The EPA has granted a Section 18 for use of Reflex as a postemergence application in snap beans. The use rate is 1 pt/A, with only one application per year. There is a 30 day pre-harvest interval.

**Raptor Labeled for Snap Beans** - Mark VanGessel, Extension Weed Specialist, mjv@udel.edu

BASF has received a supplemental label for postemergence use of Raptor on snap beans (NOT on limas). Raptor is a very similar herbicide to Pursuit, so it will not control Pursuit-resistant pigweed and we need to be sure not to overuse Pursuit and Raptor in the same fields. Rotate other herbicide mode of actions whenever you can. Raptor does have rotational concerns, all vegetables are at least 9 months and many are as long as 18 months, so check the label. This is a herbicide that needs to be applied early (to weeds 3” tall or less) for maximum effectiveness. Snap beans should be in the first to second trifoliate leaf. Apply before the plants start to flower. The Raptor rate is 4 oz/A. The Raptor label requires Basagran to be tankmixed with Raptor. Basagran is included to increase the crop safety. Basagran should be applied at rates of 6 to 16 oz/A. At these rates, Basagran will not bring much in terms of weed control. Also include a non-ionic surfactant.

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**Field Crops**

**Field Crop Insects** - Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

**Alfalfa.**
Since it has been 2 weeks since the first potato leafhopper adults were detected, it will be
important to sample all stands within one week of cutting for adults and nymphs. Once the damage is found, yield loss has already occurred. The treatment thresholds are 20 per 100 sweeps on alfalfa 3 inches or less in height, 50 per 100 sweeps in 4-6 inch tall alfalfa and 100 per 100 sweeps in 7-11 inch tall alfalfa. Baythroid, dimethoate, Mustang or Warrior will provide effective control. There have also been reports of delayed regrowth. Although alfalfa weevil populations were light, there may be fields where adults and/or larvae feeding in the crown are holding back regrowth. Examine the crowns and treat if you find 2 or more adults and/or larvae per crown.

Field Corn.
In addition to cutworms, be sure to watch for true armyworms, especially in no-till fields where a grass cover or volunteer small grains were burned down at planting. We have received our first report of armyworms feeding in no-till corn planted into a rye cover. The treatment threshold for armyworms in corn is 25% infested plants with larvae less than one-inch long. A pyrethroid will provide effective control, but only if worms are less than one-inch long. We are also seeing cereal leaf beetle adults in the earliest planted fields. No controls will be needed until you find 10 beetles per plant and 50% of the plants exhibit damage. With the recent cool, wet weather, we are also seeing an increase in slug activity. Although there are no new control options, an application of 30% nitrogen (20 gallons per acre on corn in the spike to one-leaf stage) or a metaldehyde bait (e.g. Trails End LG or Deadline MPs) should be considered.

In the last few weeks, there have also been isolated fields with corn leaf aphids feeding on spike to 2 leaf stage corn. In most years, we do not see aphids in corn until the late whorl to tassel stage. In all cases, it was related to the presence of volunteer grain and/or heavy populations of annual bluegrass present at the time of planting. Midwestern research indicates that plants infested in the coleoptile to two-leaf stage were the most sensitive to aphid feeding. Aphids feeding at these stages can result in delayed plant development, reduced plant height, and delayed pollen shed and silking. Although no thresholds have been established, aphid populations of 15 or more per seedling plant may warrant a treatment, especially in seed production fields.

Small Grains.
Continue to scout all fields for cereal leaf beetle (CLB), aphids, grass sawfly and armyworms. We are still finding fields with economic levels of cereal leaf beetle. The cereal leaf beetle treatment threshold is 0.5 larvae per stem. If economic levels of CLB are present, sprays will be needed until the grain reaches the hard dough stage. The treatment threshold for aphids is 20-25 per head with low beneficial activity (less than 1 per 50 aphids). In both wheat and barley, the treatment threshold for sawflies is 2 per 5 foot of row innerspace or 0.4 per foot of row. The armyworm threshold is one per foot of row in barley and two per foot of row in wheat. If multiple pests are present in barley, your control options include Lannate or Parathion. In wheat, your options include Lannate, Mustang, Parathion or Warrior. Remember, Parathion can only be applied by air and has numerous set back restrictions.

Forage Fertilization - Richard W. Taylor, Extension Agronomist; rtaylor@udel.edu

The cool to cold spring weather along with long periods of wet, cloudy weather has delayed hay harvest schedules this spring. When the weather finally begins to cooperate and growers begin hay harvest, they also need to consider the need for additional nitrogen fertilizer and the first split maintenance application of phosphorus (P) and potassium (K) plus boron (B) if legumes are present. In some areas, the rainfall over the past months may have leached the remaining soil N out of the crop’s root zone so additional N will be needed after harvest. Observe plants closely for signs of sulfur deficiency as well and fertilize with
ammonium sulfate, potassium magnesium sulfate, or Epsom salt if you notice S deficiency symptoms (general yellowing of the plant especially on newer growth and possibly stunting or very slow growth especially after N has been added).

The regular maintenance levels of P, K, and B (if legumes are present) should be applied in early June or after the first hay harvest. For fields being grazed, you should apply needed P and K in early to mid-June before hot, dry weather sets in on us. Usually your soil test will have recommendations for maintenance fertility programs, but if you do not have a recent soil test you should take this opportunity to take soil samples and get them tested. In pastures and hay fields, we have no choice but to apply all fertilizer on the surface, a 0 to 4 inch sampling depth will be best. For deep rooted crops such as alfalfa, you should take both a 0 to 4 inch and a 0 to 8 inch sample so you will know when the crop is depleting the deeper soil levels of nutrients.

Sulfur Deficient Barley’s Response to Sul-Po Mag Fertilizer - Richard W. Taylor, Extension Agronomist; rtaylor@udel.edu

In Issue 6 (Vol. 11) on May 2, I talked about several fields of wheat and barley that were showing sulfur (S) and/or magnesium (Mg) deficiency that had been confirmed by tissue testing. Often the question is raised whether it is too late to get a response to fertilization especially when severe stunting has occurred as was evident in one of the barley fields (Photo 1). In the case of this field, there was debate over whether the barley would respond enough to justify the application of potassium magnesium sulfate or Sul-Po Mag. The grower felt that the application would benefit the next crop (double-crop soybeans) and that alone justified the application and fertilizer cost.

As can be seen in photo 2 and 3, the application of potassium magnesium sulfate produced a dramatic growth response from barley. Although yields are still likely to be well below the usual average for the field, the response seen here almost certainly means that the grower will recover not only the cost of fertilizer and application, but improve his net return as well.
Fertilizer Injury on No-Till Corn - Richard W. Taylor, Extension Agronomist; rtaylor@udel.edu; Gordon Johnson, Extension Agent, Kent County gcjohn@udel.edu

We recently investigated a field showing leaf tip burn on the first and second emerged leaves (Photo 1) as well as lack of emergence in sections of rows. The field showed patterns that were probably man-made, but at the same time were very unusual. The corn was seeded no-till with a planter that was being used for the first time on field corn. In the past, the planter had been used to plant sweet corn. The planter was step up to apply a 2 by 2 banded starter, in-furrow pop-up fertilizer, in-furrow insecticide, and with row sweeps to remove trash over the row for faster soil warm-up.

As can be seen in Photo 2, the salt injury was causing necrosis or burn on the coleoptile, the first true leaf, and the emerging root system. When compared with unaffected plants, the root systems were quite small and showed injury to the root tips. In many cases the first true leaf, was almost completely necrotic at emergence. For other seeds, although the seminal root system partially formed, mesocotyl elongation and coleoptile growth failed to occur. In Photo 2, the seeds in the center were cut open to show the lack of disease signs.

The field showed an unusual pattern. Row 2 and 5 of a six row planter showed salt injury (Photo 3) symptoms when the planter was traveling in one direction, but the injury was much less noticeable when the planter was traveling in the opposite direction. Row 1, 3, 4, and 6 did not show salt injury symptoms (Photo 3). The pattern of injury in row 2 and 5 in one direction of travel was pronounced in the first half of the field, but was slightly less pronounced three quarters of the way across the field. The grower reported that the
fertilizer attachments for row 2 and 5 were closer to the row than they should have been and tended to move some during planting. In addition, the row sweeps or cleaners on those two rows were very aggressive and tended to sometimes pile soil to the side of the row where the fertilizer openers were running. This may have decreased the depth at which the banded fertilizer was placed. In addition to starter fertilizer, the corn also received an in-furrow application of fertilizer along with insecticide.

Certainly the cool weather in combination with no-till slowed corn growth to the point that the plants were accumulating nutrients from the fertilizer to the point that salt injury was occurring. The unusual pattern is more difficult to explain although it may in part be due to the observed movement of the banding attachments and the soil ridging caused by the aggressive row sweeps. At first, we were stumped by why the injury was seen only when the planter was traveling in one direction and not the other, but on reflection we speculate that on the day of planting there was a strong cross wind. When strong enough and from the right direction, the wind may have moved the fertilizer falling into the band towards the row when the planter was traveling in one direction, but on the return trip the wind would have moved the fertilizer away from the row. So, the combination of wind movement, cool to cold weather causing slow growth, no-till (also causing slow growth due to lower soil temperatures), the use of banded and in-furrow pop-up fertilizer, and fertilizer placement problems on these two rows all combined to make for a very unusual field pattern of salt injury.

Photo 3. Row two (on left) and row three (on right) from a six-row planter showing injury from a combination of factors (Photo by R. Taylor).

Grain Marketing Highlights - Carl German, Extension Crops Marketing Specialist; clgerman@udel.edu

Markets Subject to Position Squaring Ahead of Holiday Weekend
With only two trading days left before the Memorial Day weekend some of the fund buyers are taking profits and squaring positions ahead of the three day weekend. This is likely to take commodity prices slightly lower going into the holiday. Export activity and weather developments continue to dominate and headline the news for commodity price activity with price volatility picking up as the cropping season progresses.

Net sales of U.S. corn at 756,300 MT were 28% below the week earlier and 3% short of the previous 4-week average. Corn exports were reported to be within the range of trade guesses at 831,300 MT.

Wheat net sales of 108,300 MT were reported to be 55% below the previous week and 52% below the average. Exports of 353,900 MT were 20% below the prior week and 7% less than the average. This sales level was also reported to be within trade expectations.

U.S. soybean shipments are slowing as we near the end of the old crop supply. Net sales reported at 108,400 MT were 24% below the previous week and the prior 4-week average. Actual shipments at 114,600 MT during May 9-15, declined by 63% from the previous week and 68% from the 4-week average.

Marketing Strategy
Weather developments are likely to dominate the market over the next few months keeping commodity prices in a volatile mode, particularly
for new crop corn in the near term. This morning’s drop in the soybean price is indicative that planters are rolling in the corn belt and that fund traders are taking profits. New crop corn sales are best left on hold for the time being in that it is still early in the growing season, with new crop Dec '03 corn futures trading at $2.43 per bushel. New crop soybeans, have dropped 10 cents per bushel this morning in today's trading activity. With the new crop soybean basis at 10 under the Nov '03 futures contract, the next sales objective for bumping new crop soybean sales another 10% (to the 20 - 30% of intended production level) should be placed at the $5.75 per bushel level (CBT November '03 futures).

**Horseweed (or marestail) Control - Mark VanGessel, Extension Weed Specialist, mjv@udel.edu**

I have had a couple of questions about control of glyphosate-resistant horseweed in Roundup Ready corn. These fields did not use any atrazine at planting, only glyphosate and the resistant horseweed is now 8 to 16 inches tall. Dicamba (Banvel, Clarity, Distinct, or Marksman) will have the most activity on these weeds. Since these weeds are large, at least 8 oz/A of Banvel or Clarity with non-ionic surfactant is needed. Distinct rate should be 6 oz/A. Given the size of the weeds, do not expect complete control of the horseweed, rather expect the dicamba to suppress it and really reduce the weed’s competitiveness.

The trade off is some crop response from the dicamba versus control of the horseweed. Horseweed plants will continue to get taller with time. It is not a true winter annual that flowers in May and stops growing. Horseweed will continue to grow in height up to early July. So treating it now is essential.

No-till soybean fields that have not been treated yet also pose a difficult situation. 2,4-D at 1 pt/A will have very little effect on the tall horseweed plants. ALS-inhibiting herbicides such as Amplify or FirstRate are not particularly good on these tall plants. Canopy or Canopy XL will be the best options because the high rates of Classic (a component in each of these herbicides). This is not a good option to use every year, but given the unusual conditions this year, it would be a good choice. If Canopy or Canopy XL do not fit into your herbicide program, two applications of Gramoxone Max will be needed to control/suppress these large weeds. The final option is resort to tillage to control the existing plants.

**Use Higher Spray Volume With Paraquat Burndown - Mark VanGessel, Extension Weed Specialist, mjv@udel.edu**

Since a number of no-till soybean fields still need to be sprayed with a knockdown herbicide, keeping in mind Gramoxone Max (paraquat) needs good coverage for best control. Some people report good control with less than 20 gallons when the weeds are small, but spray coverage of these larger weeds is essential. When you have many things working against you for controlling large weeds, keep spray volumes high (minimum of 20 gallons per acre). Also with these larger weeds, use the higher end of the rate range for Gramoxone Max (2 to 2.7 pts/A).

**Be Sure to Scout Early-Planted Corn - Mark VanGessel, Extension Weed Specialist, mjv@udel.edu**

It is important to start to get over the early planted corn ground to check if there are weed breaks. Crabgrass is also one that worries me since it is very difficult to control with a postemergence spray. Most of the postemergence grass herbicides (Basis Gold, Steadfast, or Option) will not control crabgrass over 1 to 2 inches tall. Herbicide-resistant corn (Liberty Link or Roundup Ready) gives you a wider window for crabgrass control. Be sure to check your fields early.
UPCOMING EVENTS:

Agronomic Crops Twilight Session

When: Tuesday, June 3, 2003
Where: UD Cooperative Extension Research and Demonstration Area
(3/4-mile east of Armstrong Corner, on Marl Pit Rd. - Rd 429)
Time: 6:00 PM

Join your fellow producers and the UD Extension team for an interactive and hands-on experience as we discuss demonstration trials and address in-season production issues in small grains, corn, and soybeans. We will focus on:

- Small grain variety comparisons,
- Corn fertility and nutrient management,
- Insect, weed, and disease management.

We will apply for both DE Pesticide and Nutrient Management re-certification credit.

This meeting is free and everyone interested in attending is welcome. To register, for more information or special consideration in accessing this meeting, please call our office in advance, at (302) 831-2667.

See you there!
Carl P. Davis, Extension Agent, Agriculture

Weather Summary

http://www.rec.udel.edu/TopLevel/Weather.htm

Weeks of May 16 to May 22, 2003

Rainfall:
2.94 inches: May 16
0.15 inches: May 17
0.13 inches: May 18
0.64 inches: May 21
0.12 inches: May 22

Readings taken for the previous 24 hours at 8 a.m.

Air Temperature:
Highs Ranged from 74°F on May 20 to 51°F on May 17.
Lows Ranged from 55°F on May 22 to 40°F on May 20.

Soil Temperature:
61°F average for the week.
(Soil temperature taken at a 2 inch depth, under sod)

Web Address for the U of D Research & Education Center:
http://www.rec.udel.edu

Compiled and Edited By:
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Extension Associate - Vegetable Crops

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