



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Vegetables

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

Cucumbers.

Both pickles and slicers should be watched for increases in aphid and cucumber beetle populations. Fresh market cucumbers are very susceptible to bacterial wilt vectored by cucumber beetles. Although pickling cucumbers grown in high-density rows can compensate for about a 10 percent stand loss, beetle feeding can reduce plant growth. If moderate feeding can be found in the cotyledons and/or the first true leaves and there is a history of bacterial wilt on your farm, a cucumber beetle spray should be applied. Actara, Thiodan, a pyrethroid or Lannate will provide control. A treatment should be applied for aphids if 10 to 20 percent of the plants are infested with aphids. Actara, Thiodan or Lannate will provide control.

Melons.

Economic levels of cucumber beetles, aphids and spider mites continue to be found. As vines begin to run, be sure to sample carefully for spider mites. The threshold is 20- 30% infested crowns with 1-2 mites per leaf. If populations of mites have exploded and adult mites are the predominant life stage, Capture, Danitol or Kelthane should be used. If the population is a mixture of eggs, immature mites and lower levels

of adult mites, Agri-Mek should be used at 8 oz/acre. A second miticide application may be needed in 3-7 days depending on the population level at treatment time. If populations are heavy or numerous eggs are present at the time of treatment, at least 2-4 miticide applications will be needed. Be sure to also sample melons for aphids. The treatment threshold for aphids is 20% infested plants with at least 5 aphids per leaf. Actara, Fulfill, Lannate and Thiodan are labeled on melons and will provide melon aphid control. Actara, Lannate and Thiodan will also provide cucumber beetle control. Capture will provide cucumber beetle and spider mite control.

Peas.

Be sure to sample fields for pea aphids starting at the bud stage and continuing through harvest. Populations have increased in fields throughout the state. With the recent cool, weather beneficial insect activity has started to lag behind.

Peppers.

When fruit is ½-inch in size or larger, peppers should be sprayed on a 7 –10 day schedule for corn borer control. Orthene or Address (both acephate) should be used on a 10-day schedule and will also provide pepper maggot control. Remember - only 2 applications of acephate at the 1 1/3 lb per acre rate can now be used. If a pyrethroid or Lannate is used, sprays should be applied on a 7-day schedule and dimethoate should be added to the mix for pepper maggot control. If no fruit is present, be sure to watch for

larvae tunneling into the main stems of peppers. Sprays must be applied before larvae move into the stems to achieve effective control.

Potatoes.

Economic levels of CPB adults and small larvae can still be found in the earliest planted fields. Actara, Spintor or Provado will provide control. The first ECB egg masses and stem entrances have been detected in potatoes. Be sure to check our website (<http://www.udel.edu/IPM/traps/latestblt.html>) for the most recent moth catches in your area. If trap catches are being used to time sprays, the first application will be needed this week. Ambush, Baythroid, Furadan, Penncap, or Pounce 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. Continue to sample for potato leafhopper adults and nymphs. 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.

Sweet Corn.

Be sure to watch the earliest planted fields for European Corn Borer larvae. We are starting to see our first larvae in whorl stage sweet corn. A treatment should be applied if 15% of the plants are infested. The best timing for a treatment is just as the tassels are emerging from the whorls. In recent years, the best corn control has been achieved with Ambush, Pounce, Penncap or Warrior.



Update on Sandea Herbicide for Cucumbers -
Ed Kee, Extension Vegetable Crops Specialist;
kee@udel.edu and *Mark VanGessel, Extension*
Weed Specialist; mjv@udel.edu

Sandea has received a 24c third party label in Delaware for use on cucumbers, both fresh market and pickling. The material can be used pre-emergence after planting, but before cracking at 2/3 to 1 ounce per acre. This application will control many broadleaf weeds, including redroot pigweed, lambsquarter, jimsonweed, and ragweed. It will also provide some control of yellow nutsedge. It can be tank-mixed with Command to obtain grass control.

Sandea can also be used as a post-emergence treatment at 2/3 to 1 ounce with nonionic surfactant at a rate of 0.25% of the spray solution (1 quart/100 gallons). The same weeds will be controlled, with better control of nutsedge to be expected. Check the label for a complete listing of weeds controlled.

Postemergence applications can be made after the crop has reached the 1-2 true leaf stage, but before the 5-6 true leaf stage. Applications must be made 30 days before harvest, and by ground application only.

Sandea cannot be applied to crops treated with soil applied organophosphate insecticides, nor should such insecticides be applied 7 days before Sandea application, or 3 days after.

Cucumber producers interested in using this material must sign a waiver of liability with the dealer, and with the Vegetable Growers Assn. of Delaware, which is the third party labeling organization. This waiver will be mailed out to the pickling cucumber growers and other slicer growers we have identified. If you are interested, contact Ed Kee at 856-7303 or by email (Kee@udel.edu).

Read the label carefully for other instructions and restrictions.



Vegetable Diseases - - Bob Mulrooney, Extension Plant Pathologist; bobmul@udel.edu

Gold /Bravo, or Flouronil between the time the potatoes are nickle-sized until flowering, and repeat 14 days later.

Potatoes.

To control **pink rot** caused by *Phytophthora erythroseptica* and *P. nicotianae*, and leak caused by Pythium apply Ridomil Gold MZ, Ridomil



Late Blight Update - - Bob Mulrooney, Extension Plant Pathologist; bobmul@udel.edu

Disease Severity Value (DSV) Accumulations as of May 30, 2001 are as follows:

Remember that 18 DSV's is the threshold to begin a spray program

Emergence Date	DSV's May 16	DSV's May 17	DSV's May 20	DSV's May 30	Recommendation
April 28	0	11	29	51	5-day, low rate

Potatoes that have reached greenrow (50% emergence) since May 18 have all reached more than 18 DSV's.

Growers should be applying a fungicide for late blight control at this time. Please check the University of Delaware's IPM website <http://www.udel.edu/IPM> for the most current DSV accumulations. DSV's are updated twice a week.



Vegetable Diseases - Kate Everts, Extension Vegetable Pathologist, University of Delaware and University of Maryland; everts@udel.edu

MELCAST for Watermelons

EFI Values (Environmental Favorability Index)

Do not use MELCAST if there is a disease outbreak in your field, it is a **preventative program**. Any questions, please call David Armentrout at (410) 742-8788 or e-mail: da88@umail.umd.edu

Location	5/23	5/24	5/25	5/26	5/27	5/28	5/29	5/30
Bridgeville, DE		0	0	2	4	1	1	0
Laurel, DE (Collins Farms)		0	0	2	1	1	1	1
Galestown, MD		1	0	2	4	0	1	1
Georgetown, DE	1	1	0	1	2	1	1	0
Hebron, MD		0	0	2	3	1	2	1
Salisbury, MD		1	0	2	2	1	2	1
Laurel, DE (Vincent Farms)		0	0	1	2	1	3	1

Watermelon Fields should be sprayed with a fungicide when 30 EFI values have been accumulated by the weather station nearest your fields. Add 2 points for every overhead irrigation. After a fungicide spray, reset your counter to 0 and start over. If a spray has NOT been applied in 14 days, apply a fungicide and reset the counter to zero. The first and last day above can be partial days so use the larger EFI value of this report and other reports for any specific day

More detailed information concerning MELCAST and sample data sheets are available on the web at <http://www.agnr.umd.edu/users/veg/disease/veg/disease.htm>. ❖



Licensed and Bonded Dealers in Agricultural Products

The Delaware Department of Agriculture grants licenses to Dealers of Agricultural Products. The Dealers include Delaware brokers, as well as, out-of-state brokers licensed as dealers of agricultural products in the State of Delaware. The Department of Agriculture makes no warranty concerning the use of this list.

For more information, contact Cliff Hudson, DDA, 302-739-4811.

LICENSE No.	COMPANY/ADDRESS	LETTER OF CREDIT	BOND EXPIRATION
128-01	L & L Melon Sales Inc. P. O. Box 288, 90 U.S. Route 13 Laurel, Delaware 19956		7/9/01
129-01	Wm. P. Hearne Produce Co., Inc. P.O. Box 1975 Salisbury, Maryland 21802		12/31/01
130.01	Seabrook Brothers & Sons, Inc. P.O. Box 5103 Seabrook, New Jersey 08302		12/31/01
131-01	Agway, Inc. Country Products Group, 333 Butternut Drive DeWitt, New York 13214		12/31/01
132-01	McMelon, Inc. P. O. Box 1077 Lake Wales, Florida 33859		1/01/02
133-01	Sunnyboy Produce Co., Inc. 3301 S. Galloway St., Rm 248 Philadelphia, Pennsylvania 19148		12/07/01
134-01	Tri Winner Irving Acres, Inc. P. O. Box 1289, Houlton Road Presque Isle, Maine 04769		12/31/01

135-01	C & J Transport, Inc. J. R. Sales P. O. Box 267 Fairfield, Maine 04937		12/31/01
136-01	Potandon Produce L.L.C. 3242 South Woodruff Avenue Idaho Falls, Idaho 83404		12/31/01
137-01	Pacific Heartland, LTD 4335 State Road 60 West Mulberry, Florida 33860		12/31/01
138-01	Hapco Farms, Inc. 889 Harrison Avenue Riverhead, New York 11901		12/31/01
139-01	Maine Potato Growers, Inc. P. O. Box 271 Presque Isle, Maine 04769		12/31/01
140-01	Thomas E. Moore, Inc. P. O. Box 794 Dover, Delaware 19903		4/14/01
141-01	John F. Cope Co., Inc. John Cope's Food Products, Inc. 156 W. Harrisburg Ave., P. O. Box 419 Rheems, Pennsylvania 17570		12/31/01
142-01	Maine Farmers Exchange P. O. Box 869 Presque Isle, Maine 04769		12/31/01
143-01	M. G. Ford Produce, Inc. P. O. Box 2872 Labelle, Florida 33975	1-0001	2/15/02
144-01	W. B. M. Potato Brokerage, Inc. 5616 Old State Road Lincoln, Delaware 19960		12/31/01
145-01	S. E. W. Friel P. O. Box 10 Queenstown, Maryland 21658-0010		1/16/02
146-01	Hanover Foods Corporation P. O. Box 334 Hanover, PA 17331		12/31/01
147-01	Agrilink Foods, Inc.		12/31/01

	P. O. Box 20670 Rochester, NY 14602-0670	
148-01	Morris Pagano, Inc. 69-71 Brooklyn Terminal Market Brooklyn, New York 11236	3/27/02
149-01	Pictsweet Frozen Foods Division of United Foods, Inc. Ten Pictsweet Drive Bells, Tennessee 38006	12/31/01
150-01	Furman Foods, Inc. P.O. Box 500 Northumberland, Pennsylvania 17857-0500	3/22/02
151-01	J.G. Townsend Jr. & Company P.O. Box 430/316 N. Race Street Georgetown, Delaware 19947	1/14/02
152-01	Dosse Givens, Inc. 23000 Concord Pond Road Seaford, Delaware 19973	12/31/01
153-01	Vlasic Food International 260 S. Blacks Corners Imlay City, Michigan 48444	2/14/02



Field Crops

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

Field Corn.

Continue to watch for armyworms moving from small grain fields into nearby corn fields. The treatment threshold for armyworms in corn is 25% infested plants with larvae less than one-inch long. A pyrethroid will provide effective control. Cutworms remain active and fields should be scouted through the 5th leaf stage. At the 5 leaf stage, a treatment is needed if 5% of the plants are cut and larvae are one inch or less in size.

Small Grains.

Continue to sample barley and wheat for armyworm populations. Economic levels continue to be found in wheat and barley. The treatment threshold on wheat is 2 per foot of row and on barley the threshold is one per foot. On wheat, Warrior, Lannate or Parathion can be used. On barley, Lannate or Parathion can be used. Warrior has a 30 day wait until harvest, Parathion a 14 day wait and Lannate a 7 day wait.

Soybeans.

With the cooler weather and wet soils, both seed corn maggot and slugs will be a potential problem in no-till soybeans. In no-till fields, seed corn maggot will remain a problem through early June. Flies continue to lay eggs and maggots will be present at the time of seed germination. The only

hopper box treatment available with a soybean label is Kernel Guard Supreme. The active ingredient is permethrin and it should be used at a rate of 1.5 oz per 50 lbs. of seed. If slugs start to feed on soybeans, the metaldehyde baits should be considered. Results from Ohio indicate that the mini-pellet formulations provide the most effective control.

Alfalfa.

We continue to get calls about alfalfa weevil feeding on regrowth after the first cutting. Fields should be checked within a week of harvest for larvae feeding on regrowth. If you can find 2 or more larvae per crown or 50% tip feeding, a treatment should be considered. Baythroid, Imidan, Furadan or Warrior will provide control.



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

World Coarse Grain Use Projected at a Record Pace

The International Grains Council is now forecasting record world coarse grain use at 902 million metric tons for the 2001/02 marketing year. This is a 14 mmt increase in world use from the current marketing year. The projected increase in world coarse grain use is largely attributed to stronger demand for poultry feed in developing nations.

Low Prices Equal Sales

Export news around the world and in the U.S. has been rather brisk this week. The reason being

Maximum Corn Size for Postemergence Herbicide Applications - *Mark VanGessel, Extension Weed Specialist;* mjv@udel.edu

Broadcast applications refer to an over the top application and directed refers to use of special spray equipment to direct the spray and avoiding the spray coming in contact with the whorl of the corn. When corn height and collar number are given, base your decision on whichever feature is first attained.

when commodity prices get low enough, sales happen. U.S. exports are currently reported to be moving to Jordan, South Korea, and China.

Crop Progress/Condition

Crop progress reports this week show U.S. corn 95% planted, 3% over the 5 year average. 70% of the nation's corn crop is reported to be in the good/excellent categories, 2% less than last week and equal to last year. U.S. soybeans are 70% planted, 6% over the 5 year average, with 61% of the crop in the good/excellent categories, down 5 points from last year. The general condition of the winter and spring wheat crops has declined slightly from last week, with 89% of the spring wheat crop planted.

General Comments

Rains occurring generally across the U.S. the past two weeks have, for the moment alleviated crop moisture concerns. Rain makes grain, however, it also takes heat units (growing degree days) to produce normal to better grain crops and the U.S. is presently lacking in heat units. This is why we saw a reduction in the crop condition ratings this week as compared to last. With brisk export news in the U.S. and around the world, we should see some gains in commodity prices in the near term. Apparently, the army worm scare had little to no impact upon commodity prices. Currently, Dec. corn closed at \$2.09 in overnight trade, Nov. soybeans at \$4.20, and July wheat at \$2.64 per bushel. No sales are warranted at this time.



Herbicides	Maximum Corn Size
Accent	broadcast: 6 collars or 24 in.; directed: 10 collars or 36 in.
Aim	broadcast: up to 8 collars; directed: when necessary
Atrazine	12 inches tall
Banvel or Clarity	more than ½ pt/A: broadcast: 5 lvs or 8 in.; directed: 36 inches tall ½ pt/A or less: 36 inches tall
Basagran	No restrictions listed
Beacon	broadcast: min- 4 inches tall and max- 20 in. tall or 6 collar; directed: pre-tassel
Bladex	prior to when 5th leaf is visible
Buctril	pre-tassel
2,4-D Amine	broadcast: 8 inches tall; directed: pre-tassel
2,4-D Ester	broadcast: 8 inches tall; directed: pre-tassel
Evik	directed only: 12 inches tall do not apply 3 weeks before tasseling
Liberty	broadcast: 24 inches tall or 7 collars; directed: 20 to 36 inches tall
Permit	broadcast: 48 inches tall; directed: when necessary
Pinnacle	1 – 4 collars or 12 inches tall
Resource	broadcast: 2- to 10-lf collars; directed: when necessary;
Roundup Ultra and UltraMax	up to 30 inches or 8 collars
Stinger	24 inches tall
Touchdown	up to 8 collars
Tough	until 68 days pre-harvest
Premixes	
Basis	2 collars or 6 inches tall
Basis Gold	5 collars or 12 inches tall
Celebrity Plus	broadcast: 4 to 24 inches tall
Distinct	6 oz rate: 4 to 10 inches tall; 4 oz rate: up to 24 in. tall
Exceed	broadcast: min- 4 in. tall; max- 20 in. tall or 6 collar; directed: 20 to 30 inches tall
Hornet	broadcast: 24 inches tall; directed: until 85 days pre-harvest
Laddok	12 inches tall
Liberty ATZ	12 inches tall
Lightning	broadcast: 12 inches tall; directed: 20 inches tall
Marksman	broadcast: 5-lf stage or 8 inches tall

Northstar	broadcast: min- 4 inches tall and max- 20 in. tall or 6 collar; directed: 20 to 30 inches tall
Ready Master ATZ	emergence until 12 inches tall
Shotgun	broadcast: 8 inches tall; directed: 12 inches tall or if rate >2 pts
Spirit	broadcast: 20 inches tall or 6 collars (minimum ht. 4 in. tall); directed: 20 to 24 inches tall (before tassel emerg.)



UPCOMING MEETINGS:

**The Household Hazardous Waste (HHW)
Collection Program - Sussex County**
Saturday, **June 2, 2001**
Southern Solid Waste Management Center
Route 20, Jones Crossroads
Hours: 8 a.m. – 3 p.m.
Citizen's Response Line: 1-800-404-7080

What to bring to a collection site:
Product containers marked with the words: "Warning:
Hazardous, Flammable, Poisonous, Corrosive or
Explosive."



For a complete listing of the items that will be
accepted see the Delaware Solid Waste Authority
website at [http:// www.dswa.com](http://www.dswa.com)
The next collection will be Saturday, July 7 in New
Castle County (Delaware Recycling Center)

Pesticide Applicator Training Session & Exam
June 26 - 27, 2001
Delaware Department of Agriculture (302-739-4811)
on Rt 13 south of Dover.

Day 1: training 8:30 a.m.-4:00 p.m.
Day 2: training 8:30 a.m.-Noon
Day 2: Exam starts at 1:00 p.m.
Bring your calculator for the calibration questions.



Weather Summary

Week of May 24 to May 31, 2001

Rainfall:

May 26: 0.60 inches
May 28: 0.10 inches
May 29: 0.03 inches

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

Air Temperature:

Highs Ranged from 75°F on May 29 to 69°F on
May 25, 30 and 31.

Lows Ranged from 60°F on May 28 to 44°F on
May 31.

Soil Temperature:

70°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>

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