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WCU Subscription Options for 2013: Mail, Fax, Email or Text

We hope that this first issue of Weekly Crop Update for 2013 will help you get your growing season off to a good start. The next WCU for 2013 will be issued on April 5. The WCU will then be posted on the web, and sent to mail and fax subscribers by 4:30 p.m. each Friday until September 27. The cost of mail or fax subscription is \$40. You can subscribe by returning the form at the back of this issue. The WCU is also available for free online as a printable PDF or blog format at a new website: http://extension.udel.edu/weeklycropupdate/.

For those of you who access the newsletter via the internet we offer to send a weekly email reminder which will let you know when the WCU has been posted online, provide a link directly to the current issue, and give you a taste of the headlines. If you would like to receive the email reminder or if you experience problems during the season with the online WCU please contact me at <u>emmalea@udel.edu</u> or (302)-856-7303.

I will also send out a text message each week when a new issue is posted. The message will be brief, and the text message distribution list will not be used for other announcements except those of an urgent nature (i.e. pest or disease alerts). If you would like to receive the text reminder please send your name, number and cell phone carrier to me at the above email address or send a message to 302-233-4719. *Emmalea Ernest*

Vegetable Crops

Insecticide Updates for Vegetable and

<u>Fruit Crops</u> - Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

Sevin - Please note that all formulations of this active ingredient (carbaryl) are *no longer* labeled on succulent shelled peas and beans (Crop Subgroup 6B), which includes but is not limited to lima beans.

Venom Insecticide (Valent USA) - A new supplemental label has been approved by the EPA that contains new crops that Venom is now labeled on. These crops include peaches and nectarines, onion, watercress, various berry crops, and various tuberous and corm vegetables. All labels must also have a state label so you will need to check to be sure these are labeled in your state before using (information is available from your state Department of Agriculture). Consult the label for specific crops, rates and restrictions (http://www.cdms.net/LDat/ld76N003.pdf).

No-Till and Vertical Tillage for Processing

Vegetables - Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

No-Till Processing Vegetables

There is increased interest in no-till production of processing vegetables. No-till production is possible for most of our common processing vegetables. However, success will depend upon a number of factors. For spring planted crops, soil temperature and emergence will be the dominant issue. For summer plantings, especially into small grain stubble, soil seed contact and stand emergence will be a major issue. When planting any vegetable crop no-till into cover crops, residue management is a major challenge and for all mechanically harvested crops, contamination by previous crop residue at harvest is a common concern along with harvest recovery.

No-Till Peas

Research at the University of Delaware in 2012 showed that peas planted into winter-killed cover crops yielded equal to or better than peas planted conventionally (March planting). Yields were highest in plots where forage radish or oil seed radish winter killed. No-till peas after winter killed mustards also performed well. In contrast, peas no-tilled after winter killed spring oats did not perform as well as conventionally planted peas. It should be noted that 2012 was exceptionally warm in March. Success with early no-tilled peas will depend upon soil temperature and ground cover. Lower residue systems such as winter killed radishes or soybean stubble would be best adapted for no-till peas.

No-Till Sweet Corn

Sweet corn can be successfully no-tilled. However, a major concern for early planted notill sweet corn into decaying crop residue or killed cover crops is seed corn maggot. Even with insecticidal seed treatments, seed corn maggot can overwhelm early plantings in some conditions and reduce stands significantly. In a 2012 experiment, April planted processing sweet corn planted into killed forage radish cover crop performed poorly when compared to conventional plots due to losses to seed corn maggot. Another issue is cold soils and delayed emergence. While most processing sweet corn varieties compensate well for reduced stands, early no-till plantings are still at risk for reduced yields. No-till sweet corn will be most successful from mid-May onward. Use of row cleaners can help to make no-till more successful in early planted systems.

No-Till Lima Beans

Lima beans have been successfully no-tilled in

the past. The main issue has been with residue at harvest. In 2012 trials, no-till lima beans did not perform as well as conventionally planted lima beans after wheat. This difference was most pronounced where stubble was close mowed prior to planting versus planting into standing stubble. Trials in 2013 will focus on stubble height in no-till systems after small grain with lima beans.

No-Till Snap Beans

Snap beans have been successfully no-tilled. In discussions with growers and green bean processors, green beans no-tilled into barley stubble performed very well. We will be evaluating no-till snap beans in 2013 in different stubble heights after barley. Early planted snap beans (April and May) also have the potential to be no-tilled into areas with winter killed cover crops and we will be evaluating no-till snap beans after winter killed forage radishes in 2013. Early terminated small grain cover crop would also be a possibility with no-till snap beans.

Using Vertical Tillage with Processing Vegetables

Growers are interested in the use of vertical tillage tools with processing vegetables. The success of this system will depend on the type of cover prior to planting. In 2012 research, vertical tillage prior to pea planting performed as well or better than conventional tillage in areas with winter killed forage radishes. Processing sweet corn performed equal to conventionally planted sweet corn in vertically tilled ground again after a winter killed forage radish crop. Research in 2013 will look at vertical tillage in a number of crop residues and processing crops.

Seedless Watermelon Spacing and

Pollenizer Placement - Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

We have received several questions about seedless watermelon spacing and pollinizer spacing as growers make final decisions for 2013. Several growers had questions about 2 ft versus 3 ft in-row spacing as well as pollinizer placement. The original work on seedless watermelons when spacing recommendations were developed showed no difference in yield or returns between 2 ft and 3 ft in-row spacing with standard size (14-24 lb) seedless watermelons. Wider spacing (4 ft or greater) reduced yield, closer spacing (2 ft, 1 ft) did not yield better than 3 ft between plants.

Another common question is, will changing inrow spacing affect fruit size in seedless melons? Some studies have shown that decreasing in-row distance decreased number of fruit per plant but did not decrease fruit size. Other studies have shown that if square footage per plant is maintained, closer in-row spacing will increase the number of smaller melons but not affect overall tonnage. This effect will be variety dependent. In our research in 2012 in comparing 3 ft and 4 ft spacing, overall yields in the variety Fascination were not affected; however, in the variety SS 7187, yields were decreased at the 4 ft spacing. Fruit sizes for both varieties increased significantly from 3 ft to 4 ft spacing.

Our recommendations for standard size watermelons are 20-25 square feet per plant. On 8 ft bed centers this would be 2.5-3 ft between plants. On 7 ft bed centers this would 3-3.5 ft between plants. This maximizes yield with the minimal plant cost.

In mini-watermelons (under 8 lbs), the standard recommendation hast been to plant at a 2 ft spacing between plants. However, recent research has shown that yield and size grades were optimized at a 1 ft in-row spacing.

The definitive work with pollenizers showed that pollenizers between every third and fourth seedless plant (seedless planted every 3 ft) optimized yields when compared to dedicated rows or pollenizers planted every fourth plant.

Our research has shown that the majority of special pollenizers performed well in this configuration (seedless at 3 ft, pollenizers between seedless plants 3 and 4). However, most standard seeded types when used as in-row pollenizers were too competitive and reduced yields. An exception was with the standard seeded type 'Stargazer' which performed equal to the special pollenizers. In research in the south, they have shown similar results using the seeded variety 'Mickylee' as an in-row pollinizer.

A recent inquiry was the potential for planting every 2 ft with a standard diploid pollenizer every fourth plant. This system should perform equal to our standard (seedless at 3 ft., pollinizer between plants 3 and 4). However, plant cost will be higher.

<u>Vegetable Fungicide Update for 2013</u> - Kate Everts, Vegetable Pathologist, University of Delaware and University of Maryland; <u>keverts@umd.edu</u> and Mason Newark, University of Maryland; <u>mnewark@umd.edu</u>

We hope that everyone has purchased the current version of the Commercial Vegetable Recommendation Guide for 2013 (CVRG-2013). The CVRG-2013 includes new information on insecticides, herbicides and cultivars. The following is a brief overview of some of the changes and updates to fungicides that are included in CVRG-2013. Some of these additions represent newly registered products. Other fungicides were added because reevaluation of trial data indicated that they were effective. This summary is not comprehensive. Also, many of these products have not been tested in replicated trials, therefore comparisons of efficacy with existing labeled fungicides is difficult. Remember to follow all label safety guidelines, rates, resistance management guidelines, and tank mix incompatibilities.

Beans-(snap and lima)

• Phosphonate fungicides (ProPhyt, K-Phite, Rampart, Phostrol) are included in the CVRG-2013 for downy mildew and cottony leak.

• Priaxor is now labeled for anthracnose and web blight.

• Fontelis is now approved for common snap bean rust.

• Uniform is now labeled for root rot. Avoid direct seed contact as delayed emergence may occur.

Cucurbits-(squash, muskmelon, pumpkin, watermelon, cucumber)

• Fontelis is labeled for gummy stem blight,

powdery mildew, *Sclerotinia* stem rot on all above listed cucurbits.

• Luna Experience is labeled for gummy stem blight and powdery mildew on watermelon.

• Uniform is labeled for *Pythium* damping off and *Rhizoctonia* for all above listed cucurbits.

• Torino is now labeled for powdery mildew on all above listed cucurbits.

• Zampro, has been added to the previously labeled products Forum, Ranman, and Tanos for downy mildew on cucumber.

• Zampro is now labeled for downy mildew on pumpkin.

Tomato

• Fontelis, Priaxor, and Quadris Top are now labeled for foliar pathogens (Septoria leaf spot, early blight) and fruit rots (early blight, anthracnose).

Potato

• Vydate was added for management of nematodes. Pre-plant or foliar applications are allowed.

Sweet Corn

• Headline AMP and Priaxor are now labeled for leaf spots and blights plus rust.

Pepper

• Priaxor is now labeled for Anthracnose fruit rot.

• Ranman was added under *Phytophthora* blight.

Spinach

• Uniform is now approved for damping off.

• Fontelis is now labeled for leaf spot and anthracnose.

Comparison of Yields of Watermelon Varieties Tested in the University of Delaware Trials for Multiple Years -

Emmalea Ernest, Extension Associate-Vegetable Crops; emmalea@udel.edu

The University of Delaware Extension Vegetable Program has been testing seedless watermelon varieties at the Georgetown Research Farm for more than twenty years. Each year's trial results are available online at

http://extension.udel.edu/ag/vegetable-fruit-

resources/vegetable-small-fruits-

program/variety-trial-results/. Using the trial reports to determine which varieties performed well in a given year is fairly strait forward, but it is better to base variety selection decisions on more than one year's data. Since the same varieties do not appear in every trial, making comparisons based on multiple years' data can be difficult when just looking at the reports.

Yield data for varieties that were tested in more than one of the trials conducted since 2005 is compiled in the table below. Three high yielding varieties that were included in all five of the trials since 2005 are used as standards in the analysis below: Crunchy Red, SS 7187, and Tri-X 313. The other varieties are compared to these standards. For example, Sugar Heart was trialed in three of the five years. Its average yield for those three trials was 60,361 lbs/A. The average yield for Crunchy Red for those same three trials was 73,651 lbs/A. The p-value for the difference between the standard variety and the variety being compared is given in italics below the vield values for the standard varieties. The lower the p-value, the more likely it is that there is a real difference in yield between the two varieties. P-values that are less than 0.05 are considered statistically significant. The pvalue for the difference between the yields of Sugar Heart and Crunchy Red is 0.0802, so the yields of these two varieties should not be considered significantly different in the trials.

The three standard varieties were not significantly different than one another in terms of yield for the five years that they were tested. None of the varieties tested had yields that were significantly higher than the standard varieties. Six varieties were not significantly different than the standard varieties and are considered equivalent to the standards in terms of yield: Sugar Heart, Crisp n Sweet, SugaRed, Declaration, SS 7197, and Sweet Delight. Six varieties had yields that were significantly lower than Crunchy Red, but not significantly lower than SS 7187 or Tri-X 313: SS 7167, Liberty, Troubadour, Fascination, Gypsy and Sugar Coat. Melody, Sorbet and Ruby had yields that were significantly lower than all three of the standard varieties. This information can be used to choose varieties that have produced high yields over

multiple seasons in our trial. Of course, other important characteristics, such as fruit size, appearance and days to maturity, will also need to be considered when choosing a variety. Information on these characteristics is available in the trial reports.

Comparison of Yields of Watermelon Varieties	Tested in the UD Trials for Multiple Years
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	#		Standard Variety Yield (Melons/A)				Standard Variety Yield (Lbs/A)		
	Years	Yield	Crunchy	SS	Tri-X	Yield	Crunchy	SS	Tri-X
Variety	Tested	(Melons/A)	Red	7187	313	(Ibs/A)	Red	7187	313
Crunchy Red	5	5070		5060	4807	84742		80052	74488
p-value				0.9766	0.4588			0.3835	0.0627
SS 7187	5	5060	5070		4807	80052	84742		74488
p-value			0.9766		0.4765		0.3835		0.3025
Tri-X 313	5	4807	5070	5060		74488	84742	80052	
p-value			0.4588	0.4765			0.0627	0.3025	
Sugar	3	4042	4659	4218	4319	60361	73651	66134	66959
Heart <i>p-value</i>			0.2068	0.7133	0.564		0.0802	0.4312	0.3696
Crisp n	3	3812	4296	4299	4077	59893	69424	69324	65175
Sweet <i>p-value</i>			0.2798	0.277	0.5491		0.1911	0.1956	0.4613
SugaRed	2	4322	4598	4391	4183	70350	73566	69214	61163
p-value			0.5678	0.8864	0.7749		0.6937	0.8892	0.2641
Declaration	2	4218	4598	4391	4183	61800	73566	69214	61163
p-value			0.4331	0.7209	0.943		0.1549	0.366	0.9378
SS 7197	2	4079	4598	4391	4183	58236	73566	69214	61163
p-value			0.2867	0.5206	0.8295		0.0665	0.1837	0.7199
Sweet	2	4780	5294	4840	4992	82573	91108	77622	80425
Delight <i>p-value</i>			0.4391	0.9263	0.7472		0.4531	0.6608	0.8485
SS 7167	5	4738	5070	5060	4807	70440	84742	80052	74488
p-value			0.3504	0.3655	0.8444		0.0114	0.0799	0.4513
Liberty	4	5119	5491	5581	5266	79055	96244	89275	83103
p-value			0.3529	0.25	0.7112		0.0074	0.095	0.4977
Troubadour	2	4667	4598	4391	4183	56472	73566	69214	61163
p-value			0.8861	0.5676	0.3198		0.0418	0.1244	0.5661
Fascination	2	3872	4598	4391	4183	54919	73566	69214	61163
p-value			0.1389	0.287	0.5206		0.0272	0.086	0.4458
Gypsy	3	5485	5465	5163	5125	75312	96871	83504	81049
p-value			0.9685	0.5304	0.4845		0.0205	0.3473	0.5077
Sugar Coat	2	3526	4598	4391	4183	56018	73566	69214	61163
p-value			0.0317	0.0799	0.1792		0.037	0.112	0.5293
Melody	3	4477	4921	5206	4685	56691	80498	81672	70530
p-value			0.3145	0.1064	0.6341		0.001	0.0007	0.0353
Sorbet	2	6283	5687	6322	5540	63234	101379	100928	85781
p-value			0.4175	0.9571	0.316		0.0012	0.0013	0.0277
Ruby	2	5264	6111	6716	6050	72758	100702	101803	91941
p-value			0.1492	0.0215	0.1779		0.0016	0.0012	0.0169

<u>Pea Herbicides</u> - Mark VanGessel, Extension Weed Specialist; <u>mjv@udel.edu</u>

Weed control options remain limited for processing peas. Pursuit, at 1.5 to 2.0 fluid ounces per acre, needs to be used as a pre-plant incorporated or preemergence treatment and is used primarily for broadleaf weeds. Preemergence applications of Command at 8 to 16 fl oz or Dual at 0.5 to 1 pt/A are labeled for control of annual grasses and some broadleaf weeds. Basagran and Thistrol are labeled for postemergence control of broadleaf weeds. Apply Basagran at 1.5 to 2 pints per acre after peas have more than three pairs of leaves. Do not add oil concentrate. Select, Assure II, Targa, or Poast can be used for postemergence grass control.

For no-till plantings of early peas, controlling all weeds present before planting can be challenging. The cool weather can result in poor performance with glyphosate. There are no other products that can be tankmixed with glyphosate to improve control in this situation. In some situations, use of glyphosate 10 to 14 days prior to planting and then a sequential application of Gramoxone maybe need at planting to completely kill weeds prior to planting.

Fruit Crops

Pruning Season - Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

March is the major month for pruning tree fruits, grapes, and cane fruits. Pruning earlier than March often stimulates plants too early and can result in later cold damage; pruning after plants have leafed out can result in loss of plant vigor.

On young fruits, pruning is used to develop the plant architecture and to allow for good root systems to develop. On bearing fruits, pruning is used to maintain productivity. In commercial orchards, pruning is done to create maximum fruit bearing surface, to allow sunlight to enter, to allow air to circulate throughout the tree canopy, to promote good spray penetration, to renew fruiting wood, and to maintain growth or vigor in all parts of the tree. Pruning is also a way of regulating the fruit load on the tree in the current season and from season to season.

On bearing tree fruits, the first step is to remove any suckers from the base of the plant. The second step would be to remove damaged or diseased wood. Remove this back to a main branch or scaffold limb and make the pruning cut at the branch collar (do not flush cut). Next, remove any watersprouts. These are rapidly growing upright shoots that form along the trunk or scaffold branches. Depending on the training system, additional pruning or training will be needed to maintain proper plant shape or height. For example, in fruits trained to an open center, remove any inward growing material. For central leader systems, remove excess branches to the main trunk. Finally, thin out flowering wood or spurs as necessary to reduce fruit load and make pruning cuts to encourage future fruiting wood development (this step varies considerably depending on the type of fruit).

In bearing grapes (generally starting the third year after planting), pruning is used to set the fruiting area for the season and for renewing young canes for the next year. Cane pruning is the usual system for Vinifera types but is also appropriate for some hybrids and American types. In this system a permanent trunks is established (often two trunks are established) to the wire, and every year two canes arising from the trunk, each 8-10 buds long, are selected and tied to the wire (one each direction), and all other canes are cut out. Canes should be about the thickness of your little finger and should come out from the trunk as close to the wire as possible. These canes should have buds fairly close together (avoid large thick canes with buds spaced far apart). Another system, often used with hybrid grapes, is the cordon or spur pruning system. With this system, in the second season, one cane is trained to each side of the trunk. and they become permanent arms that remain as the base on which short spurs are established to produce new fruiting canes each year. These spurs are two or three buds long.

In blueberries, a cane fruit, the philosophy behind pruning is to constantly renew the older,

decreasingly productive canes by cutting them out and forcing new canes. Plants are continually replacing old canes with new canes while most canes are in a productive, intermediate stage. For mature bearing blueberries, plants should produce at least three to five new canes per year. Start by pruning out all dead wood. Keep the three best one-year-old canes and remove the rest. Locate the oldest canes and prune out one of every six canes, starting with the oldest. Prune out all low branches and then detail prune by remove twiggy wood on older canes to increase fruit size.

Agronomic Crops

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

Small Grains

Each year I get questions about Hessian fly in small grains and we do see an occasional field with an economic problem. Most of the new information regarding the management of this insect pest has been developed by entomologists in states to our south where Hessian fly is a perennial problem. A new regional publication, *Biology and Management of Hessian Fly in the Southeast, ANR 1069*, was released in January and the authors have done an excellent job of covering the biology, monitoring and management of this pest in small grains. You can access this publication at

https://store.aces.edu/ItemDetail.aspx?Productl D=13507 (it provides different download formats) or www.aces.edu/HessianFly direct link to a supporting website.

Field Corn

With all of the new BT traits available to producers and different refuge requirements, it is helpful to have a quick reference to the most up to date information. My colleagues from the Midwest have done an excellent job of summarizing the latest information in one simple fact sheet call the "Handy Bt Trait Table." Their fact sheet provides a quick reference to currently available Bt traits, spectrum of insects controlled, and refuge requirements. They update it frequently so you will want to book mark their site for the latest information. <u>http://labs.russell.wisc.edu/cullenlab/files/201</u> 2/10/Handy_Bt_Trait_Table.pdf.

Insecticide Update for Agronomic Crops – Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

Deadline MPs (Amvac) - In December 2012, we were made aware of the fact that this metaldehyde bait formulation will be available for use in corn and soybeans in 2013. It will be the *only* metaldehyde bait formulation available for use in 2013 from Amvac. For clarification, the MPs are "bright blue" in color. The information submitted by IR-4 for re-registration is at EPA for review. Be sure to check with your dealers and distributors about availability in your area.

Notes on Small Grain Weed Control - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

Some fields were sprayed last spring with Osprey for control of annual ryegrass and there was no control. At least one of these fields was confirmed as having ALS-resistant annual ryegrass. If Osprey or PowerFlex (another ALSherbicide or Group 2 herbicide), were used for annual ryegrass but did not control them, Axial XL is the only option for ryegrass control this spring.

More fields with ALS-resistant common chickweed (resistant to Finesse, Harmony Extra, Osprey, and PowerFlex) are showing up in Delaware. Spring application of Starane Ultra is the best option to suppress/control the resistant chickweed.

Be sure to read the herbicide label carefully because some products can be tankmixed with nitrogen but only if the nitrogen is no more than 50% of the spray solution (nitrogen is mixed 1:1 with water). A few specifics:

• Osprey cannot be applied within 14 days of nitrogen application

• Harmony Extra can be applied with nitrogen, but use of surfactant differs depending on concentration of nitrogen and targeted weed species

• Axial XL and PowerFlex can only be applied with nitrogen if it is mixed 1:1 with water; also PowerFlex cannot be applied with nitrogen if the amount is more than 30 lbs of N/A

Read the label for rotational restrictions. Axial XL and PowerFlex are two herbicides that are effective on annual ryegrass. Both of these can be double-cropped with soybeans. However, PowerFlex will injure vegetables planted after harvest. There is a 90 day rotational restriction with Axial XL for soybeans and most vegetables. Starane Ultra has a 120 day restriction for replanting crops (Delaware has a label for planting soybeans 90 days after application, but Maryland does not have this special label).

<u>Updated Weed Management Guides</u> - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

Updated weed management guides are available online at <u>http://extension.udel.edu/ag/weed-</u> <u>science/</u>

The Guides for "Corn Weed Management", "Soybean Weed Management", and" Pasture and Hay Weed Management Guide" as well as other bulletins are available.

General

Section 24(c) Labels for Delaware -

<u>Herbicides</u> - *Mark VanGessel, Extension Weed* Specialist; <u>mjv@udel.edu</u>

The DE Department of Agriculture has granted a number of Section 24(c) or State Local Needs labels for use in Delaware. Often these special labels are not listed on the manufacturer's websites or in public data bases; and thus can be hard to find. These herbicides may not be registered in adjoining states to Delaware. The 24c for herbicides in Delaware include: Spartan Charge for lima beans.

Goal Tender for cabbage, broccoli, and cauliflower.

Starane Ultra has reduced interval for planting soybeans (90 days instead of 120 days).

There are labels for Dual on spinach, asparagus, watermelon, peppers, and cabbage. These labels are available at <u>www.FarmAssist.com</u>. You need to register at this site, then under the heading of Products, select indemnified labels. You will need to sign off on the form acknowledging you are accepting the risk associated with this use.

Chateau has a label for watermelon, cantaloupes, peppers and tomatoes when grown on plastic. This label is very specific: use for row middles only; pre-transplant application with hooded sprayers; no herbicide sprayer on the top of plastic; rain or irrigation between application and transplanting. Be sure to read the supplemental label for full details. This label requires notarized signature before use. A copy of the label and required documents are available at

http://extension.udel.edu/ag/files/2013/03/Ch ateau2013GrowerPackage.pdf

If you need clarification or more information on any of these, please contact Mark VanGessel at <u>mjv@udel.edu</u> or 302/856-7303 ext 510.

Announcements

Delaware Produce Food Safety Trainings for 2013

In 2013, three initial training opportunities will be offered for produce growers on food safety and good agricultural practices and good handling practices (GAP's and GHP's) by the University of Delaware Extension Service. Training covers microbial food contaminants, outbreaks associated with produce, how produce becomes contaminated, Good Agricultural Practices in the field (water sources; animals, manures, and compost; field sanitation; and worker hygiene) and Good Handling Practices from harvest to sales (packing area sanitation, worker hygiene, storage, handling, and shipping). For growers who have attended previous trainings, we are having a special FDA rule update. The FDA has put forward rules that will affect all growers who sell wholesale. This update session will go over each aspect of the proposed rules and how they will affect your business. All wholesale growers are encouraged to attend.

Initial training sessions at county extension offices and DDA will be as follows:

NEW CASTLE COUNTY March 15, 2013 9:30 a.m. – 12:30 p.m. Call (302) 831-2506 to register.

KENT COUNTY March 20, 2013 9-12 p.m. & 12-3 p.m. Call (302) 730-4000 to register.

SUSSEX COUNTY March 12, 2013 6:00 – 9:00 p.m. Call (302) 856-7303 to register.

Special update sessions on FDA rule affecting produce growers:

KENT COUNTY March 21, 2013 9 a.m. – Noon Call (302) 730-4000 to register.

SUSSEX COUNTY March 19, 2013 6:00 – 9:00 p.m. Call (302) 856-7303 to register.

More information can be found at:

http://extension.udel.edu/ag/agriculture-and-naturalresources/2013-produce-food-safety-trainings/

2013 University of Delaware Cooperative Extension Horticulture Short Courses

Plant Identification Basics

April 10, 2013 4:00-6:00 p.m. UD Carvel Research & Education Center Sussex County Extension Office 16483 County Seat Hwy., Georgetown, DE Cost: \$15

Learn how to learn to identify new plants. This course will focus on the top 25 plants in the nursery and landscape industry and teach you how to approach the process of identifying new plants. Once you have learned what to look for, it will be easier to learn new plants as you come across them.

Instructors: Susan Barton, Valann Budischak

Pest and Beneficial Insect Walks

June 26, 2013 4:00-6:00p.m. UD Carvel Research & Education Center Sussex County Extension Office 16483 County Seat Hwy., Georgetown, DE Cost: \$15

Tour the grounds of the Sussex County Extension Office in Georgetown to identify insects, diseases and beneficial insects in the landscape.

Instructors: Nancy Gregory, Brian Kunkel, Carrie Murphy, and Tracy Wootten

Register for either course with Tracy Wootten: (302) 856-7303 or <u>wootten@udel.edu</u>

Computer Session: Working with Excel to Organize Your Records

Thursday, March 21, 2013 1:00 – 4:00 p.m. U D Carvel Research & Education Center 16483 County Seat Hwy. Georgetown, DE 19947

This session will demonstrate many functions of Excel. In addition, participants will be introduced to a variety of uses for spreadsheets, both for the home and farm.

If you have specific questions and would like to let me know ahead of time, please feel free to send an email message to Laurie Wolinski (<u>lgw@udel.edu</u>) or add it to the form when registering. Please register by Tuesday, March 19th.A registration form is available online at:

http://extension.udel.edu/weeklycropupdate/files/2013/ 03/ExcelSession.pdf

For more information, please contact Laurie Wolinski: <u>lgw@udel.edu</u> or 302-831-2538.

Weed Science Training: Back to the Basics

March 26, 2013 8:30 am - 3:30 pm University of Delaware Research and Education Center (old office building) 16686 County Seat Hwy. Georgetown, DE 19947

> March 27, 2012 8:30 am - 3:30 pm Kent County Extension Office 69 Transportation Circle Dover, DE 19901

UD Extension will be holding one-day trainings on the basics of weed science. This training will focus on weeds and issues with agronomic crops and commercial vegetables. This is open to those new to the profession or those who are looking for a little refresher.

Topics Include

Weed Biology and Identification

(with live specimens)

This will include a discussion on weed life cycles (annual, biennial, and perennial), characteristics that make weeds unique. Much of this portion will be spent on identifying live specimens and learning to use an I.D. key.

Weed Control Strategies

This portion will include a discussion on cultural, mechanical, biological, and chemical weed control. Cultural control topics will include the effect of crop rotation on weeds, crop management on weeds, and late-season destruction of weed to limit seed production. Mechanical control will include effect of tillage, types of tillage, the use of mowing, etc. for weed management. We will finish this session with a brief overview of chemical weed control.

Herbicide Characteristics and Injury Symptoms (with live specimens)

This portion will be spent discussing herbicide mode of action, characteristics of soil and foliar applied herbicides. Herbicide mode of action and how this relates to symptoms on crops and weeds will be discussed. A lab on herbicide-crop-weed activity will be included in this section.

Herbicide Regulations

A discussion on pesticide regulations and issues associated with proper pesticide use. Topics to include

DE Noxious Weed Law, how to read a pesticide label, pesticide residues and tolerances, rotational issues, preharvest intervals, etc

Class starts promptly at 8:30 am and ends at 3:30 pm. Lunch is provided and all participants will receive a free copy of the "Weeds of the Northeast".

CCA credits: 4 credits for pest management

DE Pesticide credits: 5 credits for PA or 1A and 2 for 03

Please pre-register with Karen Adams at $302/856-7303 \times 540$

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of February 28 to March 6, 2013

Readings Taken from Midnight to Midnight

Rainfall:

0.3 inch: February 28 2.6 inches: March 6

Air Temperature:

Highs ranged from 48° F on March 5 to 37° F on March 3.

Lows ranged from 36°F on February 28 to 24°F on March 5.

Soil Temperature:

40.6°F average

Additional Delaware weather data is available at http://www.deos.udel.edu/monthly_retrieval.html and http://www.rec.udel.edu/TopLevel/Weather.htm

Weekly Crop Update is compiled and edited by Emmalea Ernest, Extension Associate - Vegetable Crops

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Weekly Vegetable and Agronomic Crops Newsletter April 5 through September 27, 2013 http://extension.udel.edu/weeklycropupdate/ Timely Production Topics Current Ag Issues Disease and Insect Outbreaks Latest Weed, Insect and Disease Control Options Crop Progress Reports Pasture and Forage Management Weather Summary Upcoming Meetings and Events

Information provided by University of Delaware Cooperative Extension Specialists and Agents.

The Weekly Crop Update is available by:

First Class Mail (\$40/season), Fax (\$40/season), or on the Internet (FREE) The Weekly Crop Update is mailed, faxed and posted on the internet each Friday by 4:30 pm.

To receive FREE weekly email reminders, email Emmalea Ernest, <u>emmalea@udel.edu</u> To receive weekly text reminders, email or text Emmalea Ernest (302) 233-4719

To receive the WCU by First Class Mail or Fax, complete the form below and return to: Emmalea Ernest, Carvel Research & Education Center 16483 County Seat Highway, Georgetown, DE 19947

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