Spring Observations from WyeREC
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Strawberry Plasticulture
Chandlers continue to bloom with first harvest anticipated to be next week.
Sweet Charlie harvest began this week.
Runners are beginning in most varieties grown here. Some bud clipper injury was noted on the most recent closed buds. Loss of these buds may help increase final size of the berries that will form from the open flowers. Continue leaf and leaf petiole sampling for nutrient analysis to optimize nutrient applications.

Tree Fruit - Peach
Shuck fall in complete. Critical sprays for scab control and bacterial leaf spot for susceptible varieties. Some early fruit thinning revealed more bud loss from Winter injury than was first noted. The 5 varieties of flat type peaches grown here exhibited very little bud loss.

Tree Fruit - Apple
Petal fall is just about complete. MaryBlyt, the Fire Blight prediction model, did not predict any infection periods this Spring for our location. If you still have bloom, the next few days of rain and warmer temperatures may put your trees at risk of infection. Apply a protective spray right away.

Make plans to attend the 2014 Strawberry Twilight Meeting, Wednesday May 21 from 6 – 8:00PM. Directions can be found at the Wye Research and Education website at: http://agresearch.umd.edu/wye

WMREC Tree Fruit Update
By Bryan Butler
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Just a few thoughts from western Maryland as the season begins. If you have used or plan to use Surround on peaches for BMSB control be sure you get an early start at shuck split, shuck fall. I have been using 12.5 pounds of Surround in 100 gallons of water mixed with an insecticide. This is still a work in progress but it does appear to be able to reduce BMSB damage if the pressure is not too high. I feel this approach may have a place especially early in the season for both apple and peach allowing producers to limit the use of the “big guns” and save them for application later in the season when BMSB pressure increases.

As far as our tall spindle apples trees we passed the top wire last season and this year which will be our fifth leaf have begun to attempt height control. This is another work in progress and we may begin to start seeing differences in the Geneva rootstocks this season. We have added to the planting showcased at out August twilight with a number of additional Geneva rootstocks with Aztec Fuji, Honey Crisp and Kingston Black as the scions. Anyone is welcome to come up and see the planting during the season.
Leafminers in Vegetable Crops

Each spring, we receive reports of leaf miners attacking spring planted vegetable crops. There are a number of potential species that attack vegetables including the vegetable leafminer, serpentine leaf miner, spinach leafminer and beet leafminer. Leaf miners can be difficult to control and we have limited experience with control strategies in our area. The following links provide information on some of the potentially important species:

http://entnemdept.ufl.edu/creatures/veg/leaf/vegetable_leafminer.htm
http://entnemdept.ufl.edu/creatures/veg/leaf/a_serpentine_leafminer.htm
http://extension.umass.edu/vegetable/insects/leafminer-beet-and-spinach

Cabbage

Continue to scout for diamondback and imported cabbageworm larvae. A treatment should be applied when 5% of the plants are infested and before larvae move to the hearts of the plants.

Melons

Continue to scout all melons for aphids and cucumber beetles. Aphids can be found in some of the earliest transplanted fields. As a general guideline, a treatment should be applied for aphids when 20 percent of the plants are infested with 5 aphids per leaf and before significant leaf curling occurs.

Potatoes

Continue to sample for Colorado potato beetle adults and egg laying. A treatment should be considered for adults when 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.

Snap Beans

All seedling stage fields should be scouted for thrips activity. The thrips threshold is 5-6 per leaflet. Be sure to also watch for bean leaf beetle feeding. Damage appears as circular holes in leaves and we have seen significant damage in recent years on the earliest planted fields. As a general guideline, a treatment should be considered if you defoliation exceeds 20% prebloom.

Sweet Corn

Continue to sample for cutworms and flea beetles. As a general guideline, treatments should be applied if you find 3% cut plants or 10% leaf feeding. In order to get an accurate estimate of flea beetle populations, fields should be scouted mid-day when beetles are active. A treatment will be needed if 5% of the plants are infested with beetles:

IPM Threshold Guide for Vegetable Crops

ECONOMIC THRESHOLD - Level of pest activity when control action is suggested to prevent economic injury Online at: https://extension.umd.edu/sites/default/files/_docs/IPMGuideVegetables2009.pdf

Seed Corn Maggots

Bad in Some Fields this Spring

By Jerry Brust
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This cool spring has been good weather for a pest of early planted seeds and bulbs—the seed corn maggot Delia platura (SCM) and other seed maggots such as Cabbage maggot Delia radicum (it prefers to feed on cole crops) and Onion maggot Delia antiqua (it feeds on crops in the onion family). The seed corn maggot is one of the earliest seed maggots in a field and it has a huge host range of seeds and plants that it attacks. Many of our previous springs were unseasonably warm and at times dry, two conditions that do not favor the maggots and is why we did not see a lot of damage in those years.

The seed maggots overwinter as pupae in the soil and in early spring (usually early March for SCM and mid-April for onion maggot), the adults emerge. Adults are elongated and dark greyish-brown, with wings that overlap their bodies when they are at rest (fig. 1). Large swarms of flies can be seen in the spring flying over newly tilled fields. The flies mate within 2-3 days after emerging and lay eggs in soil that has a great deal of decaying organic matter, which includes any rotting vegetation or manure as well as germinating seeds or newly set transplants—SCM flies are not finicky and will target the artificial media in the root balls of transplants.

The eggs hatch in 2-4 days in temperatures as low as 50°F. The larvae develop over a large temperature range: 50°-90°F. However I have found that the flies do not like to lay eggs in soil that has reached 71°F at a 4-inch soil depth for 2-3 days in a row. Therefore, once soils warm up the flies tend not to lay eggs any more.
Larvae or maggots are yellowish-white, about ¼ inch in length, legless with head-ends that are wedge-shaped (fig. 2). The maggots complete their entire development within the soil by burrowing into seeds or feeding on cotyledons emerging from seeds. The pupae are brown, oval-shaped capsules 1/5 inch in length (fig. 2). Generally, seed corn maggots complete their life cycle within three weeks and have 3-4 generations. It is the first generation that causes the most crop damage in our area.

Seed maggots cause damage by burrowing into seeds or cotyledons and hollowing them out. Although it can take 5 maggots per snap bean seed to cause significant damage, once the seed has been opened up by the maggots the seed becomes much more susceptible to invasion from soil borne pathogens. The maggots also can burrow into the bulb or stem of transplants such as watermelon or cantaloupe as well as cole crops, garlic, onions, etc. (fig. 3).

University of Massachusetts has a good publication on maggots and lists the Growing Degree Days for emergence of the flies in the spring, found at: http://extension.umass.edu/vegetable/articles/cabbage-and-onion-maggot-flies

There is a good report on growing degree days in the IPM report from May 12, 2012. It is available at: http://ipmnet.umd.edu/landscape/LndscpAlerts/2012/12May11L.pdf

Peak flights for seed corn and cabbage maggots already have occurred with peak flight for onion maggots just about ready to occur.

**Management Strategy**

As most of you know there is no rescue treatment once maggots are found in the seed or plant. Fields with moist, heavy-textured soil usually have the worst problems. To reduce the appeal of a field to egg-laying adults, disc or plow early in the season to incorporate residues from the previous crop and allow time for residues to completely decompose before planting. Destroy any weed growth. Avoid planting a crop following root crops or cole crops such as cabbage and cauliflower or after fall tomatoes. Ensure rapid seed germination by planting in moist soil not very deep when weather conditions are good. Later-season plantings may avoid the early season infestation of this pest. For crops like onions or garlic row covers can be used as soon as transplants are put in the field. Plants can remain covered until the ground warms. Diazinon as a broadcast application before planting can be used with some vegetables (be sure to check the label for each crop and see the Commercial Vegetable Production Recommendations 2014 guide).
Spittle Bugs Found in Some Strawberry Fields
By Jerry Brust
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Several strawberry growers have seen the meadow spittlebug (*Philaenus spumarius*) in their strawberries this year. The spittlebug is an annoying pest on strawberries that under extremely high numbers can stunt plants and reduce berry size. But they are more of a nuisance especially to u-pick growers as the pickers object to being wetted by the insect excretion (the spittle, even though it is harmless).

Spittlebugs can be recognized by the white masses of foam found on leaves, petioles, and stems of plants (Fig. 1). The yellow-green nymphs produce this covering to protect themselves from predators and desiccation. Initially the nymphs feed at the base of the plants, but later move up to more tender foliage. Feeding may cause leaves to become wrinkled and dark-green. Although fruit may be stunted under heavy spittle bug populations, yield loss rarely occurs. High spittlebug populations are often correlated with weedy (including legume cover crops like clover) fields, so proper weed control is important. Nymphs feed for five to eight weeks before entering the adult stage. Newly emerged adults (called froghoppers) are bright green and darken over time to a dull brown. They are very active and readily jump when disturbed. Adults are present on foliage May through November but do not produce any spittle. Adults lay white to cream-colored eggs in the stems and leaves of plants from July through October. These eggs will overwinter and hatch next spring. There is one generation per year in Maryland.

T. Peerbolt

Treatment is rarely necessary for spittlebugs, but u-pick growers need to keep populations to one spittle mass per square foot through prebloom to placate customers. It will be necessary to spread plants and inspect the crowns as well as leaves and stems. Control is considered at one spittlebug per square foot for u-pick operations and 5-6 per square foot (a high population) for everyone else. Aphid control products such as Assail, Nuprid, etc. will control spittlebugs too.

Survey of the Spotted Wing Drosophila and Other Invasive Fruit Flies in Various Tree and Small Fruit Crops
David Biddinger¹, Katie Ellis¹, Bryan Butler⁴, Leo Donovall², Kathy Demchak³, & Neelendra Joshi¹

Spotted Wing Drosophila (SWD) fruit injury was surveyed in 99 fruit samples taken at normal harvest and adult emergence was followed with bait traps at 16 PA and 9 MD fruit farms in 2013. Samples were also evaluated for the presence of African Fig Fly (AFF)

Crops evaluated: included small fruit crops, some stone fruit, and mulberries as an alternate host (See first table below).

50 fruit were collected from 10 different locations (trees/rows/sections) at each location as each crop approached commercial harvest and were reared at room temperature for 14 days in plastic containers with screen vents and a sand layer for the larvae to pupate into.

Insect specimens collected from traps and infested fruit samples were identified in the laboratory by the Pennsylvania Dept. of Agriculture.
Summary of Findings

- New invasive fruit fly pests were not found and, as expected, the African fig fly is not a fruit pest. Like SWD and other vinegar flies, it will persist on dropped and rotting fruit like cherries to build populations to attack later crops.

- SWD is not a pest of strawberry, nectarine, or plum in PA/MD and only a pest of late harvested tart cherries and damaged apricots.

- SWD is a pest of summer raspberries and becomes worse in later crops like blueberries, blackberries and fall raspberries.

- Its status in grape is uncertain and the numbers found could be from rotting berries due to black rot.

Disease Update: Scab, Fire Blight, and Mildew Oh My!

By Dr. Kari Peter
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http://extension.psu.edu/plants/tree-fruit

Fire blight risk remains high through the week. When applying streptomycin, it is effective for 24 hrs before and 24 hrs after a rain event. Apple scab spore dispersal is peaking, and with the predicted rain events this week, we are in for a very rough, serious infection period. There is potential for secondary spread if fungicide protection earlier this year was less than adequate. The humid conditions are also optimal for mildew and rust infections.
The weather this week has me excited for two reasons: 1) it’s definitely helped the process of healing from the Polar Vortex beat-down we had this winter, and 2) as a tree fruit pathologist...well, you know... However, I’ll refrain from exhibiting my enthusiasm too much for the latter.

Before getting into the nitty-gritty of the disease control measures needed right now, I want to bring to your attention a blog Cornell Plant Pathologist Dr. Dave Rosenberger has this season and folks are able to subscribe to get alerts to posts he’s written at Cornell Blogs. I’ve been mentioning this at the twilight meetings this year, but if you haven’t had a chance to read his nuggets of wisdom for disease control, excerpts are included in the updates below for the diseases needing attention at the moment.

**Fire blight**

We are in various stages of bloom right now, which makes controlling for fire blight very important at this time. Pollinators have been flying around carrying not only pollen, but fire blight bacteria, as well. Insects unknowingly deposit bacteria onto the stigma, and the bacteria get washed into the base of the flower, into the nectar pores, which is how the bacteria enter the plant. According to the fire blight models, we’re in an infection period for the next several days. From Dr. Rosenberger’s post on fire blight control:

*It may seem counter-intuitive to apply strep a second time, just two or three days after the first spray. The rationale for the second spray is that, with warm weather, many new blossoms have opened since the first spray was applied.*

Bacteria deposited on those new flowers by pollinators or by splashing rain reach disease-causing thresholds very quickly in warm weather. The only at-risk orchards where a second spray may NOT be needed are orchards where all flowers were already open when the first spray was applied.

**Apple scab**

Our scab spore counts are through the roof this week, indicating we are at peak maturity and dispersal for the southern counties of PA/northern counties of MD (folks north and west, you are a little behind, but not by much). When you combine that with the predicted rain events this week, we are in for a very rough, serious infection period. From Dr. Rosenberger’s most recent post on apple scab control:

Scab lesions resulting from infections that occurred April 29 to May 2 should become visible tomorrow or Wednesday. That means that any orchards where fungicide coverage was less than perfect for the April 29 to May 2 infection period may have conidia available for causing secondary infections during future infection events. Thus, rains predicted for the end of this week pose a triple threat for apple scab:

- High levels of ascospore discharge if the orchard had over-wintering inoculum.
- Potential for secondary spread if fungicide protection earlier this year was less than adequate.
- Apple trees at their most susceptible phenological stage (many new terminal leaves, plus significant potential for fruit infections).

*It may be tempting to stretch fungicide coverage this week in hopes of delaying the next fungicide until petal fall sprays can be applied. Given the high risks associated with the next infection period, that could prove to be a costly mistake.*

To avoid problems with scab throughout the summer, be sure to have fungicide coverage in place for rains predicted for later this week.

**Powdery mildew**

I saw early powdery mildew infection in one of my untreated blocks last week, so don’t forget about controlling for powdery mildew (and rust). To refresh your memory about powdery mildew: spores like high humidity (no rain) and temperatures around 70ºF. From Dr. Rosenberger’s post about mildew control:

*Those relying on protectant programs of mancozeb plus captan should have already applied at least one mildewcide. Where no mildewcides have been applied so far this year, a DMI fungicide (Rally, Topguard) should be considered in the next spray because none of the other mildewcides will provide both post-infection activity against mildew and excellent activity against rust diseases that also pose a high risk for fruit infection during late bloom and petal fall.*

**A note of encouragement**

This spring is a doozy for optimal conditions for disease and insects, so in the immortal words of Jedi Master, Obe-Wan Kenobi: May the force be with you. When controlling for disease, weather and tree growth conditions need to be monitored at a local level within one’s own orchard.

Before chemical products are applied, be sure to be in compliance by obtaining the current usage regulations and examining the product label. Product information can be easily obtained from CDMS. Specific chemical recommendations are in the Penn State Tree Fruit Production Guide.

![CDMS](http://www.cdsms.net/)

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**Notes:**

- CDMS: Pesticide Labels and MSDS On-Line at: http://www.cdsms.net/

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Biological Control of Mites in Pennsylvania and Maryland Apple Orchards

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The two main spider mite pests of apple in the eastern U.S. are the European Red Mite and the Two-Spotted Mite. They feed on the chlorophyll and other cell contents in leaves that gather sunlight energy which is then converted to food for the plant. The lack of green chlorophyll causes a yellowing or ‘bronzing’ of the leaves which generally occurs when spider mites reach 20-30 mites per leaf (mpl). The level at which ‘bronzing’ occurs, however, depends on many factors including the time of the year, size and variety of the tree, drought stress, and crop load. As a general rule in apple, a spray threshold of only 2.5 mpl exists early season before June; it increases to 5 mpl from June through mid July; and up to 7.5 mpl through the rest of the season. Higher levels of spider mite damage can reduce fruit quality, color and size at harvest and reduce return bloom the following season.

Penn State University is internationally known its biological mite control program in apple based on the small black lady beetle, Stethorus punctum. Developed by Asquith, Colburn, Hull and Biddinger from the 1970's through the late 1990's at the Fruit Research and Extension Center at Biglerville. Around 2005, another even more effective biological control program was developed around the Phytoseiid predatory mite, T. pyri. This was predator was new to Pennsylvania, but had been an effective biological control agent of European red mite (ERM) and two-spotted spider mite (TSSM) on apple in New York, New England and Europe. Discovered in Pennsylvania in 2003 T. pyri is by far the most reliable and effective mite predator. It is commonly found in apple orchards, but is an omnivore and more closely associated with its apple host. It is very active and moves very rapidly to consume up to 350 mite prey in a lifespan of about 75 days. Females may lays up to 70 eggs each and have several generations per season. Populations, therefore, can build very rapidly in response to pest mite populations. Most effective in the cooler weather of the spring and fall, T. pyri is somewhat less effective in the summer months. It overwinters on the apple tree under the bark where it is less susceptible to dormant oil applications and is very tolerant of Pennsylvania’s relatively mild winters.

Able to regulate pest mite populations well below injury thresholds of less than 5 pest mites per leaf, it is able to subsist on harmless apple rust mite populations, pollen or fungal spores when pest mite populations are low. Well adapted to living in apple, T. pyri do not leave the tree during the season and once populations are established, sustainable mite control is virtually ensured when the predator to prey ratio is at least 1:5 and probable at 1:10. This seasonal association with its apple host, however, makes them very susceptible to toxic pesticides. Because they do not disperse quickly, they may take several growing seasons to re-establish after extinction by harmful pesticides unless artificially re-introduced. Once populations are identified or artificially established, conservation is therefore very important and applications of certain pesticides have to be avoided. Natural populations are most likely to be found in grover orchards relying primarily on organophosphate and reduced-risk insecticides and where pheromone mating disruption is being used. Establishment of T. pyri into orchards where it is absent is relatively simple and can be accomplished in 1-2 seasons once “donor” orchards with abundant T. pyri populations have been identified as a source. Transfers of T. pyri from these orchards can be successful by physically moving blossom clusters or shoots in May and June. (See Pennsylvania Fruit Monitoring Guide or PSU Fruit Research & Extension Center website for pesticide susceptibility and orchard transfer methodology).

If T. pyri is not present in particular orchards, they can be introduced from shoots or blossom clusters cut from PSU identified ‘donor’ sites.

Although easiest to cut from other sites on the same farm that have been identified by PSU to have T. pyri, in cases where none exist or have been identified, specific sites on the PSU Fruit Research & Extension Center at Biglerville are available to all Pennsylvania apple growers for cutting and transferring shoots (contact David Biddinger at djb134@psu.edu.) In order to have the best chance of establishing T. pyri populations in a single season, transfers of shoots & leaf spurs are best made early season after petal fall (May-June), but before the hot weather of summer (July & August). Transfers after July appear to be less likely to establish populations. Also effective are transfers of flower clusters during bloom when T. pyri are concentrated in order to feed on pollen. Transfers should be made at 2 shoots or clusters to every 6th tree in high density plantings and every 3rd tree in normal plantings.

Cutting with hand-pruners from a T. pyri donor orchard and placing the shoots or flower clusters in the tree canopy of a new orchard takes approximately 1.5 hours per person/acre (exclusive of travel time).
Summer Soil Improving Crops for Vegetable Rotations

Gordon Johnson,
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Where possible, vegetable growers should consider the use of summer soil building crops. This can be between spring and fall crops, prior to mid-season plantings or anytime there is about 6-8 weeks of fallow time. Use of these summer soil improving crops can help maintain or increase organic matter levels, address certain soil disease issues (fungal pathogens, nematodes), add nitrogen to the soil in the case of legumes, reduce weed pressure, and improve soil physical characteristics.

Summer Soil Building Crop Options for Delmarva

The following are some soil building crops for summer use that I recommend:

**Legumes**

**Cowpea (Vigna unguiculata)**

Also known as blackeye or southern pea, this crop is underutilized in our area. It is fast growing with peak biomass often in 60 days. Cowpeas can fix up to 100 lbs of N per acre with biomass of 3000-4000 lbs/a. Cowpeas grow well in poor soils and can handle droughty conditions. Drill at 40-50 lbs per acre. Certain varieties such as California Blackeye #5 and Mississippi Silver are poor nematode hosts and will be beneficial in systems where root knot nematode is a problem. See this site for nematode ratings of different cowpea varieties http://edis.ifas.ufl.edu/in516#TABLE_1. Cowpeas also can be harvested in the immature pod stage as a fresh legume so can serve dual purpose in small farms.

**Soybean**

Soybean can also be a good cover crop drilled at 60 lbs per acre. Forage-type soybeans produce considerable biomass and make excellent cover crops. For nematode suppression, use of root knot nematode resistant varieties may be beneficial. Edamame types can be harvested and sold in green pod stage and the residue returned to the soil for soil building, again serving a dual purpose on small farms.

**Sunnhemp (Crotalaria juncea)**

I am very interested in having more growers consider planting sunnhemp as a summer soil-builder. This is a tropical legume that is used extensively for soil building in countries such as Brazil and India. Drill 20-30 lbs of seed per acre. Sunhemp can produce very high amounts of biomass (10 ton biomass is not unheard of in Florida – amounts will be lower here on Delmarva, expect 3-4 tons). It is a high nitrogen fixing legume and can contribute over 100 lbs of N to a following crop. Sunhemp grows very fast in the summer, reaching 6 feet or taller in 8 weeks. However, a better way to manage sunnhemp is to let it grow to about 1-3 feet tall, then mow it and let it regrow again. If allowed to get too tall and old the stems will become tough and fibrous and will not decompose rapidly. Sunnhemp is a day length sensitive crop. It will grow any time during the summer, however it will not flower and go to seed until the days start getting shorter in very late summer.

**Non Legumes**

**Sorghum-Sudangrass (Sorghum bicolor x S. sudanense)**

Sorghum-sudangrass is a cross between forage or grain sorghum and sudangrass. It is a warm-season annual grass that grows well in hot conditions and produces a large amount of biomass. Plant at 20-40 lbs per acre drilled. Of all the non-legumes, it is the most useful for soil building. Sorghum sudangrass will often reach 6 ft in height. Like sunnhemp, it can be mowed and allowed to regrow to enhance biomass production and have younger material that decomposes more quickly. Expect 3-4 tons of biomass addition per acre. As a grass, to get the most growth you will need to add nitrogen fertilizer (40-80 lbs/a). If incorporated at a young stage, the nitrogen will be re-released for the following crop. Sorghum-sudangrass is very effective at suppressing weeds and has been shown to have allelopathic and biofumigant properties. Research on nematode suppression by sorghum-sudangrass is mixed with some studies showing that sorgum-sudangrass suppresses nematode levels. Choose finer stemmed, leafy varieties when available. Brown midrib types will decompose more quickly because they have less lignin.

**Forage-type Pearl Millet (Pennisetum glaucum)**

Pearl millet is a tall summer annual grass that grows 4 to 8 ft. tall. It is well adapted to sandy and/or infertile soils and does well in the summer heat. Forage types are better adapted for soil improvement than the grain types. Seed at 20-30 lbs/a drilled. Expect 3-4 tons of biomass addition per acre. Again, as a grass, to get the most growth you will need to add nitrogen fertilizer (40-80 lbs/a). Pearl millet has been shown to suppress some nematodes. Forage pearl millet can make a good mulch for late-summer planted crops no-till or strip till. All of the crops above can be planted from late May through late July for soil improvement use. There are many other possibilities for summer soil improving, however the ones listed above are my recommendations for growers on Delmarva to try.
MDA ANNOUNCES NEW SPECIALTY CROP GRANT PROGRAM

Application Deadline is May 29

The Maryland Department of Agriculture (MDA) today announced it is accepting applications through May 29th for a competitive grant program to fund projects that solely enhance the competitiveness of specialty crops.

MDA will award $450,000 in grants for projects with a minimum level of $15,000. Special consideration will be given to projects that address food safety, market products with Maryland’s Best branding, and have efficient distribution systems. MDA intends to fund projects that can produce the highest degree of measurable benefits to Maryland specialty crop producers in relation to each dollar spent. Funded projects must have support from specialty crop producers. Grants will be reimbursement grants.


MDA is seeking applications from eligible non-profit organizations, government entities, and for-profit organizations for projects that promote or enhance the production of and access to Maryland specialty crops. Applicants must reside (or their business or educational affiliation must be in) Maryland.

Contact Karen Fedor, Program Coordinator, at Karen.fedor@maryland.gov or 410-841-5773 to discuss proposal ideas prior to the deadline.

Electronic grant applications must be submitted by 4:00 p.m. on May 29th. Paper applications must be postmarked by May 29th. The Specialty Crop Block Grant Program was established by the 2014 Farm Bill. To obtain an application, or for questions about the grant application, contact Karen Fedor at Karen.fedor@maryland.gov or 410-841-5773.

USDA Announces $78 Million Available for Local Food Enterprises

“Historic Investment Will Support Entire Local Food Supply Chain”

Agriculture Secretary Tom Vilsack today announced that USDA is making a historic $78 million investment in local and regional food systems, including food hubs, farmers markets, aggregation and processing facilities, distribution services, and other local food business enterprises.

"The 2014 Farm Bill has given USDA new tools, resources and authority to support the rural economy," Vilsack said. "Consumer demand for locally-produced food is strong and growing, and farmers and ranchers are positioning their businesses to meet that demand. As this sector continues to mature, we see aggregation, processing, and distribution enterprises across the local food supply chain growing rapidly. These historic USDA investments in support of local food give farmers and ranchers more market opportunities, provide consumers with more choices, and create jobs in both rural and urban communities."

Vilsack said that $48 million in loan guarantees for local food projects is now available through USDA's Rural Development's Business and Industry Guaranteed Loan Program, and $30 million is available through competitive grants via the Agricultural Marketing Service's (AMS) Farmers Market and Local Foods Promotion Program.

The 2014 Farm Bill requires USDA to set aside at least five percent of Business and Industry (B&I) program loan guarantees for projects that focus on local food business enterprises. Details on how to apply for local food funding through the B&I program are available on the Rural Development website. Applications are accepted on a rolling basis. The B&I program has the authority to fund local food infrastructure in urban areas as long as the project supports farm and ranch income and expands healthy food access in underserved communities.

Rural Development’s B&I program provides financial backing for rural business development in partnership with private-sector lenders. It is one of several USDA programs that help finance local foods projects. In 2013, Rural Development supported more than 170 local food infrastructure projects – from food hubs, to scale-appropriate processing facilities, to cold storage and distribution networks. Entities eligible for B&I loan guarantees include cooperatives, non-profit organizations, corporations, partnerships or other legal entities, Indian tribes, public bodies or individuals.

The 2014 Farm Bill tripled funding for marketing and promotion support for local food enterprises by creating the Farmers Market and Local Foods Promotion Program, administered by the Agricultural Marketing Service (AMS). This new program makes $30 million available annually to farmers markets, other direct producer-to-consumer venues, and other businesses in the local food supply chain. Under this program, $15 million is now available for marketing and promotional support specifically for local food businesses, including food hubs, delivery and aggregation businesses, and processing and storage facilities along the local food supply chain, while $15 million is for marketing support for farmers markets and other direct to consumer outlets. Since 2009, AMS, which administers this program, has funded nearly 450 projects totaling $27 million to support direct marketing efforts for local food.

More information about how to apply is available on the AMS website. Applications are due June 20, 2014. These funding opportunities are cornerstones of the USDA’s commitment to support local and regional food systems. USDA’s Know Your Farmer, Know Your Food Initiative coordinates the Department’s policy, resources, and outreach efforts related to local and regional food systems. The Know Your Farmer, Know Your Food Compass maps nearly 3,000 local and regional food projects supported by USDA and eleven other federal agencies. Secretary Vilsack has identified strengthening local food systems as one of the four pillars of USDA’s commitment to rural economic
The Southern Maryland Agricultural Development Commission (SMADC) has released the 2014 So. Maryland, So Good Farmers’ Market Guide. The guide helps consumers find farmers' markets in their neighborhoods and throughout the Metro DC region that offer genuine Southern Maryland-grown farm products.

The free, full-color brochure provides the contact information and hours of operation for over forty markets. Also included is a handy regional market locator map and a harvesting chart unique to Southern Maryland’s veggies and fruits. Many markets now have their own websites; a great resource to get to know your local markets' farm vendors and their products and find regular updates on 'what's available at market' and even new ‘fresh’ recipe ideas.

The Farmer's Market Guide is one of many resources created by SMADC in support of regional agriculture to assist local farm-based businesses in their continued growth and commercial viability. A related effort is the upcoming state-wide Buy Local Challenge Week (July 19 - 27). Marylanders are challenged to pledge to include local products (produce, eggs, meat, fruit, cheese, wine, etc.) in their meals for one week. Visit the Buy Local Challenge website at www.buy-local-challenge.com for details on how to take the pledge and the latest information about this year's photo contest "Take the Challenge to the EXTRMEME".

The 2014 Farmers’ Market Guide is available, while stocks last, at participating Southern Maryland farmers' markets and regional public libraries, or download the guide at www.smadc.com.

Download hi-resolution cover image here
# Maryland Department of Agriculture’s 2014 Pesticide Container Recycling Collection Dates

## Eastern Shore

- **Kent County - Chestertown**
  - Location: Nicholson Transfer Facility on Barker’s Landing Road
  - Dates: June 13, July 11, August 15, September 12
  - Time: 9:00 - 3:00

- **Talbot County - Easton**
  - Location: MidShore Regional Solid Waste Facility on Barker’s Landing Road
  - Dates: June 20, July 18, August 22, September 19
  - Time: 8:00 - 12:00

- **Wicomico County - Salisbury**
  - Location: Newland Park Landfill on Brick Kiln Road
  - Dates: June 27, July 25, August 29, September 26
  - Time: 9:00 - 3:00

*Note - Because of legal restraints, only residents from Caroline, Kent, Queen Anne’s and Talbot counties are able to use the collection site in Easton. Lower Shore residents must use the collection site in Salisbury.*

## Central Maryland

- **Harford County - Street**
  - Location: Scarboro Landfill, 3241 Scarboro Road
  - Dates: June 6, July 3, August 8, September 5
  - Time: 9:00 - 3:00

- **Harford County - White Hall**
  - Location: The Mill of Black Horse 4551 Norrisville Road
  - Dates: June 10, July 8, August 5, September 9
  - Time: 9:00 - 3:00

*Note - Frederick County has agreed to allow residents from outside Frederick County to submit empty pesticide containers for recycling, but NO TRASH from outside of the county will be accepted at the landfill under any terms.*

## Western Maryland

- **Frederick County - Frederick**
  - Location: Frederick County Landfill, 9031 Reich’s Ford Road
  - Dates: June 24, July 22, August 26, September 23
  - Time: 9:00 - 3:00

- **Washington County - Hagerstown**
  - Location: Martin’s Elevator 13219 Mau-gansville Road
  - Dates: June 10, July 8, August 5, September 9
  - Time: 9:00 - 3:00

*Note - Frederick County has agreed to allow residents from outside Frederick County to submit empty pesticide containers for recycling, but NO TRASH from outside of the county will be accepted at the landfill under any terms.*

## Inspection Checklist

- All containers must be made from high density polyethylene (HDPE).
- The container must have held an EPA-registered pesticide or adjuvant, crop oil, etc.
- Any size container will be accepted. All containers over 30 gallons must be cut prior to recycling (contact MDA for instructions).
- Pesticide containers must be properly rinsed (pressure-rinsed or triple-rinsed).
- Caps and other non-HDPE parts, such as metal handles and rubber linings, cannot be recycled.
- Stained containers are acceptable provided no material can be smeared or removed when touched by a rubber glove.
- Please remove lids and label booklets prior to recycling.
The Maryland Department of Agriculture (MDA) is offering the empty plastic pesticide container recycling program in 2014. Maryland’s pesticide container recycling program is a combined effort of state, county, and federal agencies and private industry working together to protect the environment. Rinsing and recycling empty pesticide containers will help to reduce the potential for contamination of ground water and the Chesapeake Bay while saving valuable landfill space.

A schedule of collection sites and dates is enclosed. Triple-rinsed (or equivalent), clean, plastic, pesticide containers will be collected on the scheduled days and times at these sites. Containers acceptable for recycling will be chipped and transported by the contractor, under contract with the Ag Container Recycling Council (ACRC), for processing at an approved recycling facility.

To ensure a successful program, each individual container will be inspected by MDA personnel and only triple-rinsed (or equivalent), clean, pesticide containers will be accepted. Any container that is not clean will be returned to the owner, who will be responsible for disposing of the container in a legal manner.

Additional information on the rinsing of empty pesticide containers and recycling program can be obtained from the following MDA publications: Rinsing & Recycling Empty Pesticide Containers and Pesticide Information Sheet No. 7 - Pesticide Container Recycling Program.

For further information, contact the Maryland Department of Agriculture, Pesticide Regulation Section at 410-841-5710 or visit our website at www.mda.maryland.gov.

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