Dave’s Ramble

“Everything poops Pop Pop!” shared my granddaughters with much giggling. Of course the inspiration for the discourse was our nearby duck pen.

Have you ever wondered? How does the meadow and forest grow so well without us constantly adding fertilizer? Eureka! Everything poops, from the lowly microbe all the way up the food chain to us. Maybe we have discounted the droppings of critters, but I can assure you that the lush summer growth has taken advantage of even the minute mouse deposits.

I have visited fields in the spring and noted goose droppings in every square foot of the field, so numerous that I miserably fail when trying to carefully avoid them. Studies have shown that while eating, a goose defecates every twenty minutes. With absolute precision the goose returns most of the consumed nutrients back to the vicinity of the grazing area. Geese like all animals have predictable patterns, which is significant considering sixty-seven percent of our geese are residents. During these active daily feeding cycles, the average goose produces twenty-four, 0.23 ounce droppings, for an average total of 5.49 ounces of wet droppings per day. About every ten days one adult goose consumes and redeposits somewhere: 1.75 pounds of nitrogen + 1.0 pounds of phosphorus + 0.5 pounds of potassium and assorted measures of ten additional plant essential mineral nutrients; undoubtedly, plants benefit.

“Icing on the cake!” has been touted by the Crops Master in reference to manure and other additional gifts of nature to the cropping process. We all have fully succumbed to the reality, that nutrient management and soil testing are the only scientific approach to proper reckoning of the economic and environmentally responsible use of additional fertilizers.

Fertilizing, an active stewardship of the nutrients that we value, evokes a constant cycling among the living plants and creatures of this great ecosystem we call earth. A more precise and dynamic view of nutrients in a living community, reveals that we may still be relying on the “icing” approach, often discounting nutrient sources, and forgetting a simple premise, even worth a grandfather’s chuckle, “Everything poops!”

Summer 2015

Calendar of Events
Mark Your Calendars -- Plan To Participate

♦ June 25 - High Tunnel Twilight, WREC, Queenstown
♦ August 5 - Precision Ag Equipment Day - Princess Anne
♦ August 6 - Crops Twilight & BBQ, Upper Marlboro

Inside This Issue

- Spring & Summer Meetings
- Vegetable & Agronomic Crop Insects
- IPM Alert
- Understanding Lime Requirement - Soil Variability & Management
- Scout Fields for Timely Postemergence Herbicide Applications
- Discussing Soil Health in MD
- Japanese Beetles
- Food Safety Modernization Act: Produce Safety
- Agricultural Law Education Initiative
- USDA
  - Value Added Producer Grant Program Application Deadline
  - Economics of Glyphosate Resistance Management in Corn & Soybean Production
- MDA News & Highlights
  - Participation in Pesticide Use Survey
  - MDA Cover Crop Sign-Up June 24-July 15
  - Pesticide Containers Collection Dates
- EPA Pesticide Program Updates
- Healthy Livestock, Healthy Streams: Policy Actions to Promote Livestock Stream Exclusion
- Job Posting: Agricultural Technician Supervisor
- MD State Superintendent of Schools’ Report to Explore Incorporating the Subject of Agriculture in Existing Curricular Areas
- Subscribe to the Terp Farm Newsletter
High Tunnel Twilight
June 25, 2015, 6:00-8:00 pm
Wye Research and Education Center
Queenstown, MD

Please join University of Maryland’s Jerry Brust, Kate Everts, Ben Beall, and Mike Newell for an informal, but informative, program on getting started with High Tunnel Production. Topics:
- Above ground and below ground diseases
- Insects in the High Tunnel. What to expect.
- Nutrient management/tissue sampling for analysis
- High Tunnel mechanics: Site selection, ventilation, row covers, Irrigation

There is no registration fee for this event, but since we’ll have a light fare available (sandwiches, etc.), we’ll need to know if you’re coming. Please RSVP to Debby Dant 410-827-8056 X115, ddant@umd.edu. For additional program information, contact Mike Newell, 410-827-7388, mnewell@umd.edu.

Precision Ag Equipment Day:
Registration Now Open
August 5, 2015

The 2015 Mid-Atlantic Precision Ag Equipment Field Day will be at Somerset County Civic Center, Princess Anne, MD on August 5, from 9 am – 4 pm. This year’s program will include information on soil sampling, big data, and legal issues with UAV's. Vendors, equipment demonstrations and a farmer panel are also planned. Nutrient management and pesticide credits will be available.
You must register online.
https://2015precisionag.eventbrite.com

Vegetable Crop Insect Update
By Joanne Whalen
DE Extension IPM Specialist
jwhalen@udel.edu

Cucumbers
Cucumber beetles continue to be active so be sure to scout for beetles as well as aphids. Fresh market cucumbers are susceptible to bacterial wilt, so treatments should be applied before beetles feed extensively on cotyledons and the first true leaves. Although pickling cucumbers have a tolerance to wilt, a treatment may still be needed for machine-harvested pickling cucumbers when 5% of plants are infested with beetles and/or plants are showing fresh feeding injury. A treatment should be applied for aphids if 10 to 20 percent of the plants are infested with aphids with 5 or more aphids per leaf.

Melons
Continue to scout all melons for aphids, cucumber beetles, and spider mites. Although aphid populations are still relatively low in most fields we have started to see a few fields with economic levels. Populations can quickly explode. The treatment threshold for aphids is 20% infested plants with at least 5 aphids per leaf. We are starting to see an increase in spider mites in the earliest planted fields. The threshold for mites is 20-30% infested crowns with 1-2 mites per leaf. Cucumber beetles continue to be found and numbers are increasing in a number of fields. Since beetles can continue to re-infest fields as well as hide under the plastic, be sure to check carefully for beetles as well as their feeding damage. Multiple applications are often needed to achieve effective control. When fields are blooming, be sure to consider pollinators when making an insecticide application and read all labels for requirements regarding pollinator protection.

Barbecue Begins at 4:30 pm
Ice Cream Served at 5:15 pm
Crops Twilight at 6:00 pm

Please arrive on time on time as the tour will start promptly at 6:00 pm. This event is free. However, a reserved meal ticket is required.

If you need special assistance to participate, please contact the Anne Arundel County Extension office at 410-222-3906 by August 3.
For registration information contact any of the Southern Maryland Extension offices.

Crops Twilight
Barbecue & Ice Cream Social
CMREC Upper Marlboro Farm
August 6, 2015

You are invited to attend a Field Crops Research Twilight, Barbecue and Ice Cream Social at the Central Maryland Research & Education Center, 2005 Largo Rd., Upper Marlboro, MD on Thursday, August 6, 2015 from 4:30 to 9 pm. A barbecue dinner will be served at 4:30 pm followed by homemade ice cream prior to the evening tour. University of Maryland Extension Educators and Specialists will showcase their field crop, vegetable and fruit research plots.

Barbecue Begins at 4:30 pm
Ice Cream Served at 5:15 pm
Crops Twilight at 6:00 pm

For registration information contact any of the Southern Maryland Extension offices.
Peppers
As soon as the first flowers can be found, be sure to consider a corn borer treatment. Depending on local corn borer trap catches, sprays should be applied on a 7 to 10-day schedule once pepper fruit is ¼ – ½ inch in diameter.

Potatoes
Continue to scout fields for Colorado potato beetle (CPB) and leafhoppers. Adult CPB as well as the small and large larvae can now be found. 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. As a general guideline, controls should be applied for leafhoppers if you find ½ to one adult per sweep and/or one nymph per every 10 leaves.

Snap Beans
Continue to sample all seedling stage fields for leafhopper and thrips activity. The thrips threshold is 5-6 per leaflet and the leafhopper threshold is 5 per sweep. If both insects are present, the threshold for each should be reduced by one third. As a general guideline, once corn borer catches reach 2 per night, fresh market and processing snap beans in the bud to pin stages should be sprayed for corn borer. Sprays will be needed at the bud and pin stages on processing beans. After the pin spray on processing beans, the spray schedule will be determined by a combination of both moth catches and field scouting.

Once pins are present on fresh market snap beans and corn borer trap catches are above 2 per night, a 7 to 10-day schedule should be maintained for corn borer control

Sweet Corn
Continue to sample seedling stage fields for cutworms and flea beetles. You should also sample whorl through pre-tassel stage corn for corn borers and corn earworns. A treatment should be applied if 15% of the plants are infested with larvae. The first silk sprays will be needed for corn earworm as soon as ear shanks are visible.

Agronomic Crop Insect Update
By Joanne Whalen
DE Extension IPM Specialist
jwhalen@udel.edu

Alfalfa
Continue to sample for potato leafhoppers on a weekly basis. We continue to find adults and nymphs in fields. Although both life stages can damage alfalfa, the nymphs can cause damage very quickly. Once plants are yellow, yield loss has already occurred. The treatment thresholds are 20 per 100 sweeps on alfalfa 3 inches or less in height, 50 per 100 sweeps in 4-6 inch tall alfalfa and 100 per 100 sweeps in 7-11 inch tall alfalfa.

Small Grains
We continue to find barley and wheat fields that were not treated with economic levels of armyworms. If you have not treated, be sure to sample fields and check all labels for the days between applications and harvest (pre-harvest interval).

Soybeans
Be sure to sample seedling stage beans for bean leaf beetles, grasshoppers, and thrips.

(I) Grasshoppers: Population levels are starting to increase in the earliest emerged no-till full season fields. As barley is harvested and soybeans are planted, these fields will be especially susceptible to attack by grasshoppers which can cause stand loss. If stand reductions are occurring from plant emergence to the second trifoliate, a treatment should be applied. Although no precise thresholds are available, a treatment maybe needed if you find one grasshopper per sweep and 30% defoliation from plant emergence through the pre-bloom stage.

(II) Bean Leaf Beetle: As a general guideline, a treatment may be needed for bean leaf beetle if you observe a 20 – 25% stand reduction and/or 2 beetles per plant from cotyledon to the second trifoliate stages. These treatment thresholds should be reduced if bean pod mottle virus is present in your area or you suspected virus the previous season.

(III) Thrips: Thrips can feed and reproduce on the leaves and buds of soybean seedlings. Their feeding creates bleached-out lesions along the leaf veins and gives a silvery/bronzed appearance to the leaf surface when damage is severe. These insects are very small (less than a tenth of an inch) and are torpedo shaped. While thrips always occur on seedling stage soybeans, it is only during outbreak years that they cause concern. In particular, during dry weather and on earlier planted full-season soybeans, thrips populations can explode when plants are growing slowly. Under these circumstances thrips injury will occasionally kill seedlings. Other stressors, such as nutrient deficiencies and herbicide injury, can add to thrips damage and cause plant loss. Yelling can occur from thrips but there are also a number of other factors that can cause yellowing so it is important to scout fields to identify what is causing the yellowing. Although no precise thresholds are available, as a general guideline, treatment may be needed if you find 4-8 thrips per leaflet and plant damage is observed.

Understanding the Lime Requirement
Part 3:
Soil Variability & Management
By Jarrod Miller
Agent, Agriculture & Natural Resources
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Crops, soils and management are inherently variable in their response to pH change, so there will never be a universal pH for all situations. Prior to liming your fields, you should consider the cost/benefit of your management style on raising soil pH. The lime requirement is only as accurate as your personal knowledge of the system.
**Ask yourself, what are the benefits of liming?**

Lime is added to neutralize acidity, whether it is in the form of Al or H. By raising soil pH we expect to increase yield, mainly through the reduction of toxicity from Al, Mn and Fe. Lime can raise the soil base saturation by adding Ca and Mg, which are also essential nutrients for plant growth. In addition, soil biology is affected by the soil pH. Bacteria which assist in nodulation of legumes, the breakdown of organic matter and the conversion of Nitrogen all prefer a mildly acidic to neutral pH. If a moderate cost of lime increases the yield and your bottom line, the choice should be clear.

**What are the costs of lime, or over-liming?**

While recommendations of lime are meant to benefit, there can be hidden costs. At higher soil pH micronutrients like Zn and Mn may become difficult for plants to extract from the soil, becoming “non-exchangeable” precipitates. It is also hypothesized that mineral weathering within soils, which provides fresh micronutrients, will be limited if the pH is raised. Soils with higher pH can observe increased “effective” cation exchange capacity (CEC), but this can be at the cost of anion exchange capacity (AEC). Anion exchange is responsible for retaining negatively charged nutrients like sulfur (SO₄) or nitrate (NO₃). The additional Ca/Mg from lime may also induce the leaching of K from the soil, causing a macronutrient deficiency. The problem with predicting the costs of lime is that they will vary greatly with crop, soil and management.

**Crop response to soil pH changes.**

It is (or should be) well known that plants have a range of tolerances to pH and Al toxicity. Some plants, like azaleas or blueberries, prefer an acidic pH. Crops, such as potatoes, may be more susceptible to diseases at alkaline soil pH. All of this can be ameliorated by understanding the pH requirements of a particular crop (corn, potatoes, etc). More difficult to predict is the variability within a crop, such as different varieties or hybrids. Studies of soybean and corn have observed that hybrids. Studies of soybean and corn have observed that

**Soil variability is the hardest to predict.**

Soils will vary by the parent material they form in, so soils from Western Maryland will have different lime requirements than those on the Piedmont or Eastern Shore. There can also be differences within soils in each region of Maryland and how they respond to lime. As rocks and minerals in soils weather, they replenish bases (or nutrients) in the soil. However, the more weathered a soil is (i.e., the older it is), the more dominated by acids (Al and H) the CEC may be. The acidity within highly weathered soils can be neutralized with lime, but the lower amount of micronutrients present may quickly reach a plant deficiency state. As the pH rises many micronutrients (metals like Zn, Fe and Cu) precipitate as a solid mineral, and so are unavailable to plants. Soils lower in these nutrients will be the first to experience deficiencies with a mildly acidic soil pH (e.g. 5.5 to 6.5).

Predicting how micronutrients will be affected by a rise in pH relies on many soil properties, but can be simplified with a discussion of soil texture. Coarse textured, sandy soils release nutrients slower through weathering. Sandy soils also have lower CEC, which makes it harder to retain nutrients in the soil. Due to their lower nutrient content, coarse textured soils are sensitive to over-liming as compared to soils higher in clay. This is why pH recommendations for sandy soils may be 6.0, while those with finer textures can by up to 6.5.

**Manganese is a micronutrient that can straddle the fence from toxicity to deficiency.**

Toxicity is more likely to be present in acid soils with sufficient Mn. In the Mid-Atlantic, sandy soils of the Coastal Plain are unlikely to have enough Mn to be toxic at any pH. Additionally, they can quickly show Mn deficiencies when over-limed. Raising pH removes Mn from solution, but so can CEC, oxidation, and organic matter (OM).

Higher CEC removes Mn from solution by adsorbing it onto soil particles, reducing toxic effects. Salt contents of the soil are important though. The addition of fertilizers can increase soil salt concentrations (i.e., exchangeable nutrients), releasing Mn back into solution. Aluminum toxicity can follow a similar reaction. Soils high in Al may not see toxic effects if it stays sorbed to soil particles, but the addition of salts, such as fertilizers, may cause Al to be released into solution. Manganese can also be influenced by soil moisture, as it undergoes oxidation/reduction reactions, similar to rust colored soils from Fe. Dense, compacted, and saturated soils may dissolve Mn-oxides increasing toxicity, compared to well drained, oxygenated soils where Mn is a harmless precipitated mineral.

Organic matter is known to provide nutrients as it breaks down, but OM can also bond with micronutrients preventing plant toxicities. Similar to CEC, this can be good or bad, depending on the total amount of Mn present. Adsorption by OM may reduce toxic effects from Mn, Al or Fe. Alternatively, OM can cause deficiencies if Mn concentrations are already low in the soil.

Both CEC and OM are important soil components for nutrient holding. As soils become acidic, precipitated minerals dissolve, releasing micronutrients. These nutrients are quickly absorbed onto the CEC or become associated with organic matter. Of the micronutrients Zn, Cu, and Fe though, Mn is the most likely to be on the CEC and not complexed by OM.

**Soil tillage is a management practice that affects liming results.**

To deal with plant and soil response to lime, understanding tillage types is needed. Conventional tillage, through discing or plowing, helps mix lime in the root zone. Inadequate mixing will limit neutralization of acidity. Under no-till, lime moves into the root zone through leaching by...
rainfall or irrigation. This will result in a slower neutralization compared to mixing into the root zone. In addition the increased nitrification from organic matter in no-till systems will add acidity to soils.

If lime is not adequately mixed, roots may still encounter acidic subsurface horizons. It is recommended to add lime incrementally over several years so that acidity is ameliorated deeper than the root zone. It is not recommended to use higher rates of liming. Although this would increase leaching into the subsoil, you may have several seasons of unnecessarily high pH at the surface. If high rates of lime are applied, it is better to mix it deeper into the soil. Small quantities of lime should not be mixed too deep, but take care of the surface acidity. Sometimes an acid subsoil may benefit a producer when the surface pH is too high. Roots reaching these zones may have access to micronutrients that have become unavailable at the surface.

Lime recommendations from labs may be precise for some soils, but all producers should make their own efforts to ensure it fits with their management situation. Be sure to check if lab results are based on reaching a pH of 6.0 or 6.5, because your soil type may require you to do your own calculation.

Scout Fields for Timely Postemergence Herbicide Applications
By Mark VanGessel, DE Extension Weed Specialist
mjv@udel.edu

There are a number of issues that can result in poor performance of postemergence herbicides (weather, plant stress, surfactants etc.); but the two major reasons are selecting the wrong herbicide for the weeds present and applying herbicides to weeds that are too large. We have become accustomed to glyphosate controlling weeds well over 6 inches tall. But as we experience more glyphosate-resistant weeds, we need to include an effective tankmix partner and apply it to small weeds. In our experience, this means most postemergence applications need to be made within four weeks of the soil-applied or preemergence application; if soil-applied herbicides did not get proper incorporation, weeds may need to be treated even earlier. So if the preemergence herbicide was applied 2 weeks before planting, a postemergence application may be necessary by 2 weeks after planting. Scout your fields regularly so you can keep an eye on weed growth and apply the postemergence sprays to weeds while they are still susceptible. If these postemergence sprays are made earlier than 5 weeks after planting, it may be necessary to include a herbicide that will provide residual control. Waiting longer to allow "all the weeds to emerge" often results in reduced control of the earliest emerging plants.

Soil Health Google Group
Discussing Soil Health in MD
By Nevin Dawson
Sustainable Agricultural Coordinator
University of Maryland

Welcome to the Maryland Building Soil Health Google group. We have about 85 members and counting. To kick off the conversation, I would like to ask some discussion questions and provide an action-oriented summary of the notes I took during the discussion session at our recent "Soil Health: How to Lead Change" workshop (below). Please respond with your thoughts. Note that clicking "Reply" will automatically select the Group email address to respond to the entire group, and not the single address of the sender you're replying to.

I'd also like to highlight our website. It still has lots of room to grow, but for now it serves as a basic directory of good tools and resources, as well as a library of presentations and materials related to past workshops and events: http://extension.umd.edu/soil-health. Feel free to suggest additional research-based resources by emailing me directly at: ndawson@umd.edu Thank you for your interest in this important and "growing" topic.

Nevin Dawson, Sustainable Agriculture Coordinator for Maryland University of Maryland Extension, Caroline County Office:
http://extension.umd.edu/caroline-county
9194 Legion Road, Suite 4, Denton, MD 21629
Phone: (410) 479-4030, ext. 5    Fax: (410) 479-4042

Japanese Beetles
By Stanton A. Gill
Extension Specialist in IPM and Entomology
University of Maryland Extension
sgill@umd.edu
www.Extension.umd.edu/ipm - IPM Alerts

Well, it is the quiet before the storm period. The white grub population we examine di the last week were high and we are starting to see some pupation. The adult Japanese beetles should be coming out in the end of June to early July this year. I am predicting the populations will be high in many areas this year. The rains last summer were perfect for Japanese beetle grub survival.

Best materials to control them: Acelepyrn is one of the new materials with a label in Maryland. It last about 3 weeks in controlling adult beetles. It is not inexpensive at $905 for a half gallon. Rates are 1 to 8 oz. per 100 gallons. Higher rates – longer control. Older material that work include bifenthrin and permethrin.
We will be testing a new product this summer that is a strain of Bt that supposedly works on adult beetles. We will let you know the results later in the summer.

**Food Safety Modernization Act: The Produce Safety Rule**

By Ashley Newhall, Legal Specialist
University of Maryland
Agricultural and Resource Economics Department and the Agriculture Law Education Initiative

The Produce Safety Rule

The Food and Drug Administration (FDA) released proposed revisions to the Produce Rule (Section 105) of FSMA on September 19, 2014 with a comment period that ended December 15, 2014. The overview of the Preventive Rule will reflect those proposed changes even though they are not yet final.

In short, the Produce Rule reflects FDA’s regulations which establish standards for produce safety. In its proposed Produce Rule, FDA described new standards for the growing, harvesting, packing, and holding of produce for human consumption. With that said, the Produce Rule sets standards for the following major areas:

1. **Worker Training**
   This section requires training for supervisors and farm personnel who handle produce covered by the Produce Rule.

2. **Health and Hygiene**
   This section would require farm employees to follow sanitary practices, including but not limited to hand washing, not working when sick, and maintaining personal cleanliness.

3. **Agricultural Water** (used in covered activities on covered produce where water is intended to, or is likely to, contact covered produce)
   The Rule would require the use of a treatment method effective to make the water safe and of adequate sanitary quality for its intended uses (see § 112.43(b)). The proposed rule would also require delivery of the treatment in a manner to ensure that the treated water consistently meets that standard, and to monitor the treatment at a frequency adequate to ensure that the treated water consistently meets that standard (see § 112.43(c)).

4. **Biological Soil Amendments of Animal Origin**
   The Rule specifies types of treatments, methods of application, and time intervals between applications of certain soil amendments. This includes manure, composted manure, and practices during crop harvest.

5. **Domesticated and Wild Animals**
   For domesticated animals, the Rule requires certain standards, such as waiting periods between grazing and crop harvest. For wild animals, the Rule requires farmers to monitor wildlife intrusion and not harvest produce visibly contaminated with animal feces.

6. **Equipment, Tools, and Buildings**
   The Rule sets standards for tools and equipment which come into contact with produce as well as for buildings and other facilities where raw fruits and vegetables will be held or packaged.

7. **Sprouts**
   This section sets standards for sprout production, including treatment of the seeds before sprouting and testing of irrigation water for pathogens

(Each of these sections also has certain standards for recordkeeping and document adherence).

**To Whom Does the Produce Rule Apply?**

The Produce Rule applies to farms which cultivate fruits and vegetables in their raw or natural (unprocessed) state and make more than $25,000 in annual produce sales. This is different than the Preventive Rule because the Produce Rule does not apply to manufacturers or processors. However, if you grow raw fruits and vegetables and also manufacture or further process the produce, you may be subject to both rules. The Produce Rule does not apply to raw agricultural commodities that are rarely consumed raw (such as squash), those produced for personal or on-farm consumption, and (with certain documentation) those destined for commercial processing such as canning, which will adequately reduce microorganisms of public health concern (FDA Guidance Document).

The proposed Produce Rule covers the following produce (remember, the Rule has not been finalized and this list may change):

(1) Fruits and vegetables such as almonds, apples, apricots, apricot, asian pear, avocados, babaco, bamboo shoots, bananas, Belgian endive, blackberries, blueberries, broccoli, cabbage, cantaloupe, carambola, carrots, cauliflower, celery, cherries, citrus (such as clementine, grapefruit, lemons, limes, mandarin, oranges, tangerines, tangors, and uniq fruit), cucumbers, curly endive, garlic, grapes, green beans, guava, herbs (such as basil, chives, cilantro, mint, oregano, and parsley), honeydew, kiwifruit, lettuce, mangoes, other melons (such as canary, crenshaw and persian), mushrooms, nectarine, onions, papaya, passion fruit, peaches, pears, peas, peppers (such as bell and hot), pineapple, plums, plumcot, radish, raspberries, red currant, scallions, snow peas, spinach, sprouts (such as alfalfa and mung bean), strawberries, summer squash (such as patty pan, yellow and zucchini), tomatoes, walnuts, watercress, and watermelon; and
(2) Mixes of intact fruits and vegetables (such as fruit baskets).

(see § 112.1) Compliance dates vary depending on what type of facility definition you fall under. Definitions under the Produce Rule are different than the definitions under the Preventive Rule so pay close attention to where your operation fits under each rule.

1. **Very Small Business:** A business that has an average annual monetary value of food sold during the previous three-year period of no more than $250,000 would have four years from the effective date to be in compliance. (see § 112.3(b)(1))

2. **Small Business:** A business that has an average annual monetary value of food sold during the previous three-year period of no more than $500,000 would have three years after the effective date to comply with most provisions. (see § 112.3(b)(2))

3. **Other Businesses:** A business that is not small or very small and does not qualify for an exemption would have two years after the effective date of the final rule to comply with most provisions.

The compliance dates for water quality standards and related testing would be an additional two years beyond compliance dates for the rest of the final rule.

For further information on the Produce Rule, visit the [FDA website](http://umaglaw.org)

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Value Added Producer Grant Program

**APPLICATION DEADLINE:**

Grants.gov July 2, 2015

Paper Applications July 7, 2015

**Application Cycle Open:** USDA Rural Development invites applications to compete for FY15 funding for the Value Added Producer Grant program. This year there is approximately $30 million available.

**Program Objective:** The objective of this program is to help agricultural producers enter into value-added activities related to the processing and/or marketing of bio-based value-added products and to expand markets and increase financial returns to agricultural producers.

**Agricultural Producers May Apply**

- Independent Producer
- Agricultural Producer Group
- Farmer or Rancher Cooperative
- Majority-Controlled Producer Business
  - must produce and own more than 50% of the subject agricultural commodity
  - may not produce under contract for another entity that owns the commodity
  - may not contract out production of the agricultural commodity
  - must maintain ownership through sale of the value-added product (MTVC projects exempt)
  - projects must demonstrate entry into an “emerging market” for applicants (does not apply to IP)

**Nationally Competitive Grants Available**

- **Planning Grant:** To facilitate economic planning activities to determine the viability of a value-added venture, and may include costs for an independent feasibility study and development of a marketing and business plan.

- **Working Capital Grant:** For operational costs directly related to the processing and/or marketing of the value-added product. Requires a third party feasibility study (FS) and business plan (BP) to implement the project, with two exceptions: (1) FS and BP requirement waived for ANY applicant requesting less than $50k; or (2) FS requirement waived for an Independent Producer applicant requesting any amount who proposes to expand the market for an existing value-added product they have produced and marketed successfully for two years or more.

**Maximum Grant Amount:**

- Planning grant - $75,000
- Working Capital - $250,000

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Agricultural Law Education Initiative

[http://umaglaw.org](http://umaglaw.org)

The MSBA’s Ag Law Section and the Ag Law Education Initiative recently completed an update of the Legal Services Directory to reflect the section’s growing membership. A digital copy is available at [http://ter.ps/LegDirect](http://ter.ps/LegDirect). Hard copies also available – Email: umaglaw@umd.edu to ask for a hard copy.
**Example Ineligible Costs:** Land, buildings, equipment, vehicles, R&D, engineering design, agricultural production, crop harvesting, delivery of raw commodity to a processing facility, conflict of interest transactions, and industry-wide feasibility studies.

**Matching Funds Required:** Must be equal to or greater than the grant amount, without conflicts of interest, and must contribute to eligible value-added project purposes.

**MARBI DCO Matching Funds Grants (Maryland Applicants Only)**
See the MARBI DCO website: [http://www.marbidco.org/business/mvapg.html](http://www.marbidco.org/business/mvapg.html)

**Pre-Screening and Application Toolkits:**
Please contact Jeff Williams at (302) 857-3597 via phone or at jeff.williams2@de.usda.gov via email to pre-screen your project or to request the application toolkit. We highly encourage you to submit a draft prior to the deadline. We can provide assistance and comments until June 26th. Please do not wait until the deadline to start your application!

**Application Deadline:**
Please note that the deadline for Grants.gov is **July 2, 2015** and the deadline for paper applications is **July 7, 2015**. Paper applications can be mailed or hand delivered to the RD DE/MD State Office – 1221 College Park Drive, Suite 200, Dover, DE 19904.

**Additional Resources**
Delaware / Maryland State Office: (302) 857-3628

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**USDA Glyphosate Resistance Report**

**The Economics of Glyphosate Resistance Management in Corn and Soybean Production**


Some highlights include:

- More resistance to glyphosate was found on soybean than corn acres
- Glyphosate resistance management was more likely to be done on corn acres
- Herbicides other than glyphosate accounted for most application on corn acres

To manage resistance the report recommends:

1) Use glyphosate during fewer years
2) Combine glyphosate with one or more alternative herbicides
3) Avoid applying glyphosate in consecutive growing seasons

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**Maryland Agricultural Highlights**

**State Agriculture Department Encourages Participation in Pesticide Use Survey**

*Survey is the only comprehensive measure of pesticide use in Maryland*

**ANNAPOLIS, MD (June 12, 2015)** - The 2014 Pesticide Usage Survey, an initiative of the Maryland Department of Agriculture (MDA) that is conducted by the U.S. Department of Agriculture National Agricultural Statistics Service (NASS), was mailed out this week to all certified private applicators (farmers), commercially licensed businesses, and public agencies that obtain a permit from MDA to apply pesticides. The survey is also sent to a random sampling of farmers who are not certified applicators. MDA strongly encourages all who receive this survey to complete it accurately and return it by July 15.

While the survey is voluntary, a high response is critical to ensuring MDA has the most accurate information possible. MDA is responsible for enforcing the Maryland Pesticide Applicator’s Law.

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**2014 VAPG Grant Recipients**

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<thead>
<tr>
<th>State</th>
<th>Grantee</th>
<th>Type of Grant</th>
<th>Grant Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware</td>
<td>Fifer Orchards</td>
<td>Working Capital</td>
<td>$200,000</td>
</tr>
<tr>
<td>Delaware</td>
<td>Harvest Ridge</td>
<td>Working Capital</td>
<td>$48,750</td>
</tr>
<tr>
<td>Maryland</td>
<td>Butterbee Farm</td>
<td>Working Capital</td>
<td>$8,571</td>
</tr>
<tr>
<td>Maryland</td>
<td>Chesapeake Bay Dairy</td>
<td>Working Capital</td>
<td>$200,000</td>
</tr>
<tr>
<td>Maryland</td>
<td>Chesapeake Fields</td>
<td>Working Capital</td>
<td>$33,370</td>
</tr>
<tr>
<td>Maryland</td>
<td>Elk Run Winery</td>
<td>Working Capital</td>
<td>$180,000</td>
</tr>
<tr>
<td>Maryland</td>
<td>Fiore Winery, Inc.</td>
<td>Working Capital</td>
<td>$200,000</td>
</tr>
<tr>
<td>Maryland</td>
<td>Garrett County Growers Cooperative</td>
<td>Working Capital</td>
<td>$16,115</td>
</tr>
<tr>
<td>Maryland</td>
<td>Golden Leaf - Romano Winery</td>
<td>Working Capital</td>
<td>$8,285</td>
</tr>
<tr>
<td>Maryland</td>
<td>Groundworks Farm LLC</td>
<td>Working Capital</td>
<td>$39,000</td>
</tr>
<tr>
<td>Maryland</td>
<td>Orchard Point Oysters</td>
<td>Working Capital</td>
<td>$15,000</td>
</tr>
</tbody>
</table>
“This survey will provide us with comprehensive information about what pesticides are being used around the state and what trends are developing,” said Agriculture Secretary Joe Bartenfelder. “This crucial data will help agriculture and industry professionals understand what is being used, and it will provide public and environmental health experts with information that can help them focus their research and monitoring efforts.”

The survey was originally scheduled for distribution in April but was delayed due to technical issues. This is the eighth pesticide use survey MDA has conducted since 1985. Maryland is the only state in the Chesapeake Bay region to comprehensively survey pesticide use. The 2014 survey, for the first time, includes questions related to the time of year the product is applied and which crop or site is targeted for application. This additional information is being collected as a result of the Pesticide Use Information and Reporting Workgroup, which was formed following legislation passed in 2013. Pesticides are defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. They can take the form of bait, liquid, powder or spray. Commonly used pesticides target pests including insects, weeds, plant diseases and rodents.

All commercial applicators must be registered and licensed with MDA. Restricted use pesticides may only be applied by, or under the direct supervision, of a certified applicator.

“Maryland farmers’ proactive steps to protect our natural resources make them national leaders for conservation practices,” said Governor Hogan. “Last fall, our farmers planted the largest cover crop in Maryland history, a record 478,000 acres. This helped to prevent roughly 3 million pounds of nitrogen and 95,000 pounds of phosphorus from impacting Maryland waterways. The cover crop program is one of the most cost effective and efficient means to ensuring we have a healthy Bay, which is key to a strong economy and high quality of life for all Marylanders.”

Cover crops are widely regarded as one of the most cost-effective ways to prevent nitrogen and phosphorus from entering the Chesapeake Bay and its tributaries. Under the MDA program, small grains such as wheat, rye or barley, brassicas, forage radish, and for the first time, legume mixes are planted immediately following the fall harvest on fields that would otherwise be barren. Once established, cover crops recycle unused plant nutrients remaining in the soil from the previous summer crop, protect fields against wind and water erosion over the winter, and help improve the soil for the next year’s crop.

MDA’s 2015-2016 Cover Crop Program offers two planting options for farmers. Traditional cover crops receive a base rate of $45/acre and up to $45/acre in add on incentives for using highly valued planting practices. They may not be harvested, but can be grazed or chopped for livestock forage for on-farm use after becoming well established. Harvested cover crops qualify for $25/acre with a bonus payment of $10/acre if rye is used as the cover crop.

Maryland’s nutrient management regulations require farmers to plant cover crops when organic nutrient sources are applied to fields in the fall. In addition to their water quality benefits, cover crops improve soil health and water retention, increase organic matter in the soil, reduce weeds and pests and provide habitat for beneficial insects.

“Maryland farmers routinely plant cover crops as part of their crop rotation. It makes sense for their farms and the Bay,” said Maryland Agriculture Secretary Joseph Bartenfelder. “I urge all farmers to visit their soil conservation district to sign up for this important program during our three-week enrollment window.”

This will be your only opportunity to enroll in this year’s program.”

Farmers should check their mailboxes for information on the 2015-2016 Cover Crop Program. Details are also available at www.mda.maryland.gov under “Hot Topics.”

Maryland’s Cover Crop Program is administered by MDA and the state’s 24 soil conservation districts through the Maryland Agricultural Water Quality Cost-Share (MACS) Program. Funding is provided by the 2010 Chesapeake Bay Trust Fund and the Chesapeake Bay Restoration Fund. To participate, applicants must be in good standing with MACS and in compliance with the Nutrient Management Program.

2015-2016 MDA Cover Crop Sign-Up
June 24 – July 15

ANNAPOLAS, MD (June 9, 2015) – The Maryland Department of Agriculture (MDA) has announced that its 2015-2016 Cover Crop Sign-Up will take place June 24 through July 15 at soil conservation district (SCD) offices statewide. This popular program provides grants to help farmers offset seed, labor and equipment costs associated with planting cover crops on their fields this fall to control soil erosion, reduce nutrient runoff and protect water quality in streams, rivers and the Chesapeake Bay. New this year, cover crop mixes containing crimson clover, Australian winter peas or hairy vetch are eligible for grants. Governor Larry Hogan has allocated approximately $22 million for MDA’s 2015-2016 Cover Crop Program.
23rd Year Maryland Recycles Pesticide Containers
Collection Dates Open in June

ANNAPOLIS, MD (June 1, 2015) For 22 years, the Maryland Department of Agriculture’s pesticide container recycling program has helped prevent pesticide residues from entering the soil and local waterways and has saved valuable landfill space by recycling nearly 850,000 empty, plastic pesticide containers. The program will open its 23rd year of operation in June for farmers, pesticide applicators and others. A total of 24 collection days are scheduled June through September at six locations throughout the state. Those participating are asked to properly rinse and recycle their empty pesticide containers.

“This recycling program protects the environment from possible contamination and gives producers and others an easy, free way to dispose of pesticide containers. We are very pleased with the response by farmers, commercial agricultural pesticide applicators and other pesticide users to this program,” said Agriculture Secretary Joe Bartenfelder.

In addition to removing potential contaminants through proper disposal, the program provides a source of recycled material for vendors.

The pesticide container recycling program is FREE and open to all agricultural producers and pesticide applicators. The Agricultural Container Recycling Council (ACRC) provides a chipper to grind the plastic containers into flakes, which are then transported to a contractor for recycling. The containers collected in Maryland have yielded 374 tons of recyclable plastic flakes.

“We are especially pleased with the cooperative effort of the Ag Container Recycling Council and USAg Recycling, Inc., which makes local recycling and special pick up for large quantities possible, providing a convenient and much cheaper alternative to landfill disposal,” said Secretary Bartenfelder. “With continued cooperation among the participating groups, farmers and pesticide applicators, the program will continue to be successful and will protect the natural resources of the state from potential contamination by pesticides.”

Maryland’s container recycling program is a combined effort of state, county and federal agencies, as well as private industry, working together to protect the environment. With cooperation between MDA and Mid-Shore Regional Solid Waste Facility, Kent County Public Works, Wicomico County Public Works, Frederick County Bureau of Solid Waste Management, Harford County Public Works, Crop Production Services Pocomoke, Southern States Centreville Cooperative, Southern States Frederick Cooperative, Martin’s Elevator, Angelica Nurseries, Inc., The Mill of Black Horse, Willard Agri Service Inc., Chesapeake Ag. Air, Tim’s Aerial Applications, Delmarva Aerial Crop Service, Lippy Brothers, Inc., Eddie Mercer, Inc., Hobbits Glen Golf Course, MRW Lawns, USDA, ARS, Maryland Environmental Service, and Maryland farmers and applicators, the program has been effective in reducing the landfill disposal of plastic pesticide containers and in allowing the plastic to be reused.

A schedule of collection dates and sites is available on the MDA website, and as an attachment.

For additional information, or to schedule a chipping date at your site, contact Rob Hofstetter, special programs coordinator, Pesticide Regulation Section, Maryland Department of Agriculture, at 410-841-5710.

Maryland Agricultural Commission Seeks Horticulture Nominations

ANNAPOLIS, MD (June 9, 2015) - The Maryland Agricultural Commission – an advisory body to the Secretary of Agriculture which represents all major commodities in Maryland – is seeking a fruit grower to fill the Horticulture position on the commission. As a group, commission members address legislative and policy issues that affect Maryland agribusiness. To be considered, applicants must be Maryland residents and have experience in the field they are interested in representing.

Appointments are made by Governor Larry Hogan, and each member is eligible to serve two, 3-year appointed terms. The Commission meets the second Wednesday of each month from 9:00 until noon throughout the year. All nomination forms must be received by June 24.

To be considered, contact Jessica Armacost at jessica.armacost@maryland.gov or 443-883-0217 for more information and application forms. Additional information about the commission and applications are available online.

Healthy Livestock, Healthy Streams: Policy Actions to Promote Livestock Stream Exclusion

This Chesapeake Bay Commission report entitled, Healthy Livestock, Healthy Streams: Policy Actions to Promote Livestock Stream Exclusion, examines the health benefits to livestock and to stream health and then looks into reasons why more farmers have not adopted this practice. Reasons cited include tradition, upfront costs, absentee landlords and tenant farmers, not enough flexibility for buffer requirements, and some farmers not wanting to accept government funds. The report then
examines federal and state regulations governing stream exclusion, and also federal and state cost share programs and other incentives offered like tax credits. Finally, the report offers some ideas for policy options to address farmer reticence and to increase adoption of stream exclusion practices.

The full report can be found at: [http://www.chesbay.us/Publications/Healthy%20Livestock,%20Healthy%20Streams.pdf](http://www.chesbay.us/Publications/Healthy%20Livestock,%20Healthy%20Streams.pdf)

Comments on the report may be directed to:
Bevin A. Buchheister, Esq.
Maryland Director, Chesapeake Bay Commission
60 West St. Suite 406, Annapolis, Maryland, 21401
O (410) 263-3420  C (410) 703-9030

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**EPA Pesticide Program Updates**

*From EPA’s Office of Pesticide Programs*

**EPA’s Proposal to Protect Bees from Acutely Toxic Pesticides - Public Webinar and Comment Period Extension**

EPA is hosting a public webinar that will provide background information and additional details about its proposed plan to prohibit the use of all highly toxic pesticides when crops are in bloom and bees are present under contract for pollination services. The plan also recommends that states and tribes develop pollinator protections plans and best management practices. EPA has already held webinars with states and tribes. The public webinar will be on June 23 from 3 – 4:30 p.m. Eastern and accessible online at [https://epa.connectsolutions.com/pollinatorproposal/](https://epa.connectsolutions.com/pollinatorproposal/).

EPA will also be extending the comment period on the proposal an additional 30 days, ending July 29. Please visit the regulatory docket for the proposal to protect bees from acutely toxic pesticides, [EPA-HQ-OPP-2014-0818](https://www.epa.gov/pesticide-registration/proposal/EPA-HQ-OPP-2014-0818), to read the plan and submit comments.

Learn more about the proposal and other [EPA Actions to Protect Pollinators](http://www2.epa.gov/pesticide-registration/proposal/EPA-HQ-OPP-2014-0818): [EPA Actions to Protect Pollinators](http://www2.epa.gov/pesticide-registration/proposal/EPA-HQ-OPP-2014-0818)

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**Types of Pesticides**

Pesticides are often grouped according to the type of pest they control or by chemical or source.

*type of pest, chemically-related*

**Frequently Asked Questions**

Answers to questions from the public.

**Fact Sheets**

Search general interest and technical fact sheets, health and safety, regulatory actions, specific chemicals

**Information Sources**

Additional information of general interest, General information, hotlines, information centers, databases

**Pesticide Program Reports**

Reports produced by the Office of Pesticide Programs Annual Reports, Performance Management & Accountability, Pesticide Industry Sales and Usage, Progress Reports, Restricted Use Products Reports

**Pesticide News Stories**

Pesticide related articles appearing in news media

*Publications | Glossary | A-Z Index |*

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**Article of Interest**

“The Contribution of Pesticides to Pest Management in Meeting the Global Need for Food Production by 2050”

The CAST (Council for Agricultural Science and Technology) article entitled, The Contribution of Pesticides to Pest Management in Meeting the Global Need for Food Production by 2050 summarizes topics and issues regarding the use of pesticides in a scientific and responsible manner. View the article at:

2015 “So. Maryland, So Good” Guide to Farmers’ Markets Available Now

Looking for a farmers’ market near you? The 2015 “So. Maryland So Good” Farmers’ Market Guide is a great resource to help you find the region’s finest and freshest locally grown farm products.

Printed annually by the Southern Maryland Agricultural Commission, the guide lists 31 producer-only markets around Southern Maryland in addition to 12 markets in the Metro DC area that feature a bountiful harvest of genuine Southern Maryland farm-grown produce, meats and seafood, pickles and jams, dairy products, baked goods and even wine.

The free, full color guide lists market days and hours of operation, plus a handy regional market locator map and harvesting chart unique to Southern Maryland’s growing seasons. Also listed are the market websites and Facebook pages; a great way to find out more about what’s at market and discover more about the farmers each market hosts. And look out for special market events such as customer appreciation days, holiday market celebrations and chef demonstrations.

The Farmer’s Market Guide is one of many resources created by the Southern Maryland Agricultural Development Commission in support of regional agriculture. A related effort is the upcoming state-wide Buy Local Challenge Week (July 18 - 26). Marylanders are asked to pledge to eat (and drink!) local farm products for one week. Visit the Buy Local Challenge website at www.buylocalchallenge.com for details.

The 2015 Farmers' Market Guide is now available, while stocks last, at participating Southern Maryland farmers’ markets, regional public libraries and welcome centers. View or download the guide on the ‘Get the Guides’ page at www.smadc.com

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Maryland State Superintendent of Schools, Lillian M. Lowery, releases to the Maryland Legislature a report entitled, Report of the Task Force to Explore Incorporating the Subject of Agriculture in Existing Curricular Areas.

The full task force full report is available at:

http://extension.umd.edu/anne-arundel-county/agriculture/agriculture-bulletins

Go to Bulletin Section I and select: MSDE Task Force to Incorporate Agriculture Curricula

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Job Posting: Agricultural Technician Supervisor

Position Summary/Purpose of Position: Provide assistance and support to the Facility Manager in the daily operations of research and outreach programs located at the Beltsville Facility.

Salary and Benefits: Salary will commensurate with experience, with base salary of $39,777 per year.

Applications: All Interested persons must submit their application via our website: https://ejobs.umd.edu/

Position Number: 103058

Unit: AGNR-AES-CMREC-BARC (Beltsville Facility)

For more specific information please contact Kevin Conover, Facility Manager at 301-345-1225.

Closing Date: Applications accepted through June 26, 2015 or until a suitable candidate has been identified.

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See the Attachments!

2) Recycle Pesticide Containers Flier for Collection Dates.
Subscribe to the Terp Farm Newsletter!

We'll be sending monthly updates of what we're up to at the Terp Farm - thanks for following along!

Terp Farm Newsletter Subscription

Commercial Vegetable Production Recommendations
Maryland 2015 EB-236
On-Line at:

Wild & Woolly is a quarterly newsletter for sheep and goat producers and anyone else interested in small ruminants.

For more information, contact Susan Schoenian, Sheep & Goat Specialist, University of Maryland Extension, 301-432-2767 x 343 or sschoen@umd.edu

New edition of Headwaters Issue 2 Volume 2
At the distinct risk of sounding like a braggart, we have an amazing group of contributors to this publication. Every few months, we put our heads together and bring you the best and most valuable nuggets of inspiring work of our community partners and scientifically-grounded work of researchers.

For more information about the Watershed Protection and Restoration Program, and how we support Chesapeake Bay restoration, please visit our website, www.extension.umd.edu/watershed.

The Maryland Sea Grant Extension Watershed Educators Team

Study finds peanut consumption in infancy prevents peanut allergy
NIH-funded trial compares consumption and avoidance of peanut.

NIH Published quarterly by University of Maryland Extension
Amanda Wahle, 4-H Educator  
University of Maryland  

Are you between 8 and 18 or know someone who is?  
If so have you considered joining 4-H?  
The Anne Arundel County 4-H program is growing and  
is always looking for new members and volunteers.  
The program has community clubs located throughout  
Anne Arundel County but is also looking for volunteers  
and members to lead new groups.  There are a variety  
of projects members can participate in including animal  
science, environmental sciences and human sciences.  
We are also looking for adults to do seminars or  
presentations to help 4-Hers learn how they can  
further their projects.  
To receive more information, please contact Amanda  
Wahle in the Anne Arundel Extension Office at 410-222-3900 or at: awahle@umd.edu
Thanks for Partnering
Thanks for partnering with the University of Maryland Extension, and supporting our programs. I also hope you enjoy this newsletter. If you are no longer interested in receiving this newsletter, please call or write the office for the removal of your name from the mailer.

R. David Myers, Principal Agent
Agriculture and Natural Resources
University of Maryland Extension
Anne Arundel & Prince George's Counties

Anne Arundel County Extension
97 Dairy Lane
Gambrills, MD 21054
410-222-3906  Fax 410-222-3909

Prince George's County Extension
6707 Groveton Drive
Clinton, MD 20735
301-868-8783

Note: Registered Trade Mark® Products, Manufacturers, or Companies mentioned within this newsletter are not to be considered as sole endorsements. The information has been provided for educational purposes only.
# Maryland Farmers Market Report

## Weekly Summary

### Fruits and Vegetables

**6/7/2015**

<table>
<thead>
<tr>
<th>Produce</th>
<th>Pounds</th>
<th>Quarts</th>
<th>Price</th>
</tr>
</thead>
</table>
| **APPELES** | 4.44 | 4.20 | $1.89  
| Cortland | | | 
| Empire | 2.34 | | $5.00  
| Fuji | 2.34 | | 
| Gala | 2.34 | | 
| Golden Delicious | 2.34 | | 
| Honey Crisp | 2.25 | | 
| Jonagold | 2.89 | | 
| McIntosh | 2.89 | | 
| Red Delicious | 2.34 | | $3.50  
| Winsap | 2.34 | | 
| **PEARS** | 2.93 | 2.50 | $2.34  
| Gala | | | $2.34  
| Empire | | | 
| Golden Delicious | | | 
| Honey Crisp | | | 
| **PEAS** | 2.93 | 2.50 | $3.63  
| Sugar Snap | 2.93 | | $4.50  
| **APRICOTS** | 2.93 | 2.50 | $2.50  
| **ASPARAGUS** | 2.93 | 2.50 | 
| **BEANS** | 2.93 | 2.50 | 
| **BLACKBERRIES** | 2.93 | 2.50 | 
| **BLUEBERRIES** | 2.93 | 2.50 | 
| **BROCCOLI** | 2.93 | 2.50 | 
| **BRUSSEL SPROUTS** | 2.93 | 2.50 | 
| **CABBAGE** | 2.93 | 2.50 | 
| **CANTALOUPE** | 2.93 | 2.50 | 
| **CARROTS** | 2.93 | 2.50 | 
| **CAULIFLOWER** | 2.93 | 2.50 | 
| **CHERRIES** | 2.93 | 2.50 | 
| **CUCUMBERS** | 2.93 | 2.50 | 
| **ELDERBERRIES** | 2.93 | 2.50 | 
| **GARLIC** | 2.93 | 2.50 | 
| **GARLIC SCRAPE** | 2.93 | 2.50 | 
| **HONEYDEW** | 2.93 | 2.50 | 
| **KALE** | 2.93 | 2.50 | 
| **LETTUCE** | 2.93 | 2.50 | 
| **LIMA BEANS** | 2.93 | 2.50 | 
| **MUSHROOMS** | 2.93 | 2.50 | 
| **MUSTARD GREENS** | 2.93 | 2.50 | 
| **NECTARINES** | 2.93 | 2.50 | 
| **ONIONS** | 2.93 | 2.50 | 
| **ORANGE** | 2.93 | 2.50 | 
| **PEARS** | 2.93 | 2.50 | 
| **PEPPERS** | 2.93 | 2.50 | 
| **PLUMS** | 2.93 | 2.50 | 
| **POTATOES** | 2.93 | 2.50 | 
| **RADISHES** | 2.93 | 2.50 | 
| **RASPBERRIES** | 2.93 | 2.50 | 
| **RHUBARB** | 2.93 | 2.50 | 
| **RHUBARB SCRAPE** | 2.93 | 2.50 | 
| **SQUASH** | 2.93 | 2.50 | 
| **STRAWBERRIES** | 2.93 | 2.50 | 
| **TOMATOES** | 2.93 | 2.50 | 
| **TURNIP GREENS** | 2.93 | 2.50 | 
| **WATERMELONS** | 2.93 | 2.50 | 
| **ZUCCHINI** | 2.93 | 2.50 | 

### Reporting Markets

- Anna Arundel County Farmers Market
- Baltimore City Market (JFX)
- Bowie Farmers Market
- Crofton Farmers Market
- Downtown Cumberland Farmers Market
MARYLAND DEPARTMENT OF AGRICULTURE’S
2015 PESTICIDE CONTAINER RECYCLING COLLECTION DATES

**EASTERN SHORE**

<table>
<thead>
<tr>
<th>Kent County - Chestertown</th>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicholson</td>
<td>June 12</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>Transfer</td>
<td>July 10</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>Facility on Nicholson Rd</td>
<td>August 14</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>EARL NICHOLSON ROAD</td>
<td>September 11</td>
<td>9:00 - 3:00</td>
<td></td>
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</tbody>
</table>

**CENTRAL MARYLAND**

<table>
<thead>
<tr>
<th>Harford County - Street</th>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scarboro</td>
<td>June 5</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>Landfill, Scarboro Rd</td>
<td>July 2</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>3241 Scarboro Road</td>
<td>August 7</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>Road</td>
<td>September 4</td>
<td>9:00 - 3:00</td>
<td></td>
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</tbody>
</table>

**WESTERN MARYLAND**

<table>
<thead>
<tr>
<th>Frederick County - Frederick **</th>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frederick</td>
<td>June 23</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>July 21</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td>Landfill, Reich’s Ford Road</td>
<td>August 25</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>September 22</td>
<td>9:00 - 3:00</td>
<td></td>
</tr>
</tbody>
</table>

**Talbot County - Easton***

<table>
<thead>
<tr>
<th>Location</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MidShore</td>
<td>June 19</td>
<td>8:00 - 12:00</td>
</tr>
<tr>
<td>Regional Solid</td>
<td>July 17</td>
<td>8:00 - 12:00</td>
</tr>
<tr>
<td>Waste Facility On Barker’s Landing Road</td>
<td>August 21</td>
<td>8:00 - 12:00</td>
</tr>
<tr>
<td></td>
<td>September 18</td>
<td>8:00 - 12:00</td>
</tr>
</tbody>
</table>

**Harford County - White Hall**

<table>
<thead>
<tr>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Mill of Black Horse</td>
<td>4551 Norrisville Road</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td></td>
<td>August 4</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td></td>
<td>September 8</td>
<td>9:00 - 3:00</td>
</tr>
</tbody>
</table>

**Washington County - Hagerstown**

<table>
<thead>
<tr>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin’s Elevator</td>
<td>June 9</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td>13219 Mackinsville Road</td>
<td>August 4</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td></td>
<td>September 8</td>
<td>9:00 - 3:00</td>
</tr>
</tbody>
</table>

**Wicomico County - Salisbury**

<table>
<thead>
<tr>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newland Park</td>
<td>June 26</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td>Landfill on</td>
<td>July 24</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td>Brick Kiln Road</td>
<td>August 28</td>
<td>9:00 - 3:00</td>
</tr>
<tr>
<td></td>
<td>September 25</td>
<td>9:00 - 3:00</td>
</tr>
</tbody>
</table>

*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.

**INFORMATION 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.

**Frederick County - Frederick **

**Washington County - Hagerstown**

**Wicomico County - Salisbury**

*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.*
The Maryland Department of Agriculture (MDA) is offering the empty plastic pesticide container recycling program in 2015.

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.

The Maryland Department of Agriculture, Pesticide Regulation Section would like to thank all of its private cooperators and participants for making this a successful and worthwhile program. We would like to especially thank the Ag Container Recycling Council (ACRC) and USAg Recycling, Inc. Without their assistance and dedication, this program would not be possible.

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Maryland’s 2015
Pesticide Container Recycling Program