The Market Bulletin
Walt Helmick, Commissioner
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Expanding Our Opportunities

By the time you read this column a potato-testing project will be well underway on tracts of Agriculture Department property located adjacent to the Huttonsville Correctional Center in Randolph County and the Lakin Correctional Center in Mason County.

Ten different varietals will be planted at both sites and the results generated from the two projects will be utilized to determine which types of potatoes will provide the most productive yields.

The testing will also establish a framework for future potato planting on both state-owned and private farmland to help meet the growing demand for this crop both inside and outside of West Virginia.

I’ve been saying since taking office last year that we have a $6 billion opportunity here in West Virginia – given the fact that we consume $7.3 billion in food annually while producing approximately $700 million. So again, what it really amounts to is being able to grow fresh products in West Virginia for West Virginians to purchase and eat.

This potato project at Lakin and Huttonsville will establish a solid baseline for which varietals will perform the best in those regions of the state and we will use that to begin boosting potato production in West Virginia so that we don’t have to import them from other states.

It will also help us to continue in our efforts to attract large scale potato buyers to do business with us.

That said, we’ve been working diligently to identify some aggregation sites in various locations across the state so we can assist farmers by establishing a reliable market and distribution network for all of our West Virginia grown products.

I will keep you updated as these projects move forward.

VETERANS AND WARRIORS TO AGRICULTURE
Since the establishment of this program late last summer some very positive progress has been made.

Our project director James McCormick has just over 50 Veterans and Warriors officially participating in the program that includes training for these fine folks to become beekeepers and producers of specialty crops and livestock.

The goal to assist those who have served our country and are now seeking an opportunity in agriculture is real and we are excited to see the strong interest and movement that is being made in the right direction.

SPEAKING OF BEES
I was pleased to pay a visit with the state’s beekeepers at their Spring Meeting in Fairmont. By my estimation there were at least 150 people in the room when I spoke, and at least 200 with reservations for the event. I believe this is powerful evidence for the strength of West Virginia’s apiary industries.

I also believe that beekeeping is an industry that is ripe for substantial growth in West Virginia. Unlike many states, we have not documented any colony collapse disorder, our bees feast on forest trees and wildflowers, and they produce rich honey flavors not found elsewhere. We also have beekeepers who are involved in commercial pollination, which can be just as lucrative as honey production itself.

We have a strong apiary program that provides free pest and disease inspections to beekeepers throughout the state. A key part of that program has been State Apiarist Paul Poling. Those of you who attended the Spring Meeting probably heard, but for the rest of you, I will share that Paul has decided to retire from state government. But I assure you that we are working diligently to fill that vacancy.

I should also note that the WVDA Homeland Security Section also has conducted training sessions for emergency agencies on responding to incidents involving stinging insects. Wrecks involving tractor-trailer loads of bees are not unheard of as pollinators increasingly are shipped to provide services. When you consider that each hive can contain 25,000 bees and how many hives can go on an 18-wheeler, you begin to see the magnitude of the problems it can cause.

BEEF EXPO
Our state cattle producers also got together recently at the 24th Annual West Virginia Beef Expo held at WVU Jackson’s Mill. Producers take this time together to discuss the state of the industry and any new trends and topics. The Expo closed with its annual sale and netted over half a million dollars, selling more than 200 head of seven different breeds of cattle.

The Expo is also an educational event with 4-H and FFA teams competing in the Grasslands and Stockman’s judging contests. Sarah Page, 2014 WV Beef Queen, and her Mineral County FFA Team took first place in the Sr. Stockman’s Contest while Braxton County 4-H took first in the Jr. Stockman’s Contest. Congratulations to all the students who competed – it’s reassuring to know this next generation is so knowledgeable about this valuable industry.

This event is always open to the public and anyone interested in beef production, or knowing more about where their food comes from should mark their calendars to attend next year.

FOR THOSE OF YOU WHO ARE TECH-SAVVY
As our world continues to rely more on technology to communicate, I encourage you to make sure you take advantage of our offerings on Facebook, Twitter and Pinterest. You can keep up to date daily on things that are happening at the WVDA and can access some great recipes too.

On Facebook and Pinterest find us at West Virginia Department of Agriculture, and on Twitter @WVDeptofAg. We currently have nearly 2,000 Facebook followers and more than 1,200 on Twitter. If you would like to submit your recipes for our Pinterest account you can send them to wvdarecipes@outlook.com.
Lingering Effects of Cold Stress

Kevin Shaffer, Ph.D., Livestock Production Specialist
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The winter weather has been extremely harsh this year, causing cattle to require additional energy for maintenance. This effect is known as cold stress, and it occurs when cattle must expend energy to maintain body temperature. Both weather and animal factors contribute to cold stress. The primary weather factors are air temperature, air movement, precipitation, and humidity while external and internal insulation (i.e., hair coat and body condition), dietary energy level, surface area, and coat color contribute to cattle’s ability to withstand cold. Animal factors are primarily related to heat generation through solar radiation and evaporative heat loss. The effects of cold stress are hard to quantify but can be impactful for periods long after winter is over.

The obvious and most severe effect on calves is death from hypothermia; however, there are other factors that can have lasting effects on the calf. Many of you may have experienced calves that were “slower” at birth and not as vigorous. Given the average quality of harvested forages last year, this could be the result of less than adequate nutrition for the dam, which can also impact the quality and volume of colostrum. Slower calves at birth may not consume adequate amounts of colostrum either. Research suggests that calves from cows and heifers that were underfed protein during late gestation may have an impaired ability to absorb the components of colostrum responsible for passive immunity. This effect is magnified when the calves themselves experience cold stress immediately after birth, suggesting that immune function may be impaired or at least reduced in some calves this year.

The effects of cold stress on cows are hard to quantify but can include abortions, weak calves, and retained placentas. These impacts are primarily the result of inadequate nutrition during late gestation, an effect again magnified by the general low quality of hay available from last summer. However, the most significant impact of cold stress on cows is fertility during the subsequent breeding season. Cows that experienced cold stress and/or were lacking amounts of colostrum either. Research has shown that cows that were underfed protein during late gestation will often have a longer postpartum interval, or the time from calving to first heat. Remember, calving causes significant damage to the uterine tissue. Damage that has to be repaired before the cow can successfully conceive again, and protein, energy, and other nutrients are necessary for the cow to heal effectively. Because fertility is known to be lower in the first cycles after calving, it is necessary for the cow to cycle 2-3 times to achieve maximum fertility before being exposed to a bull.

Consider the following to minimize winter’s effects in the coming year. First, provide constant access to a balanced mineral supplement for both cows and calves. With mineral supplementation, it is important to have adequate concentrations of trace minerals because they play a large role in both reproduction and immunity. Additionally, grazed forages are often deficient in the trace minerals copper, selenium, and zinc, which are critical for immune function and reproduction. Second, implement and utilize a comprehensive herd health and vaccination program. You can view a sample vaccination program online at http://anr.ext.wvu.edu/livestock/feeder_cattle_marketing but consult with your local veterinarian before implementing a program.

Questions? Contact me at Kevin.Shaffer@mail.wvu.edu or 304-293-2669.
Common Tomato Problems

Growing tomatoes has long been a popular pastime in West Virginia. Tomatoes in the home garden are not just valued for their delicious, fresh from the vine ripeness, but also for canning, juice, sauce or salsa. There is a plethora of ways you can prepare tomatoes, and for this reason, many folks consider them the foundation crop of their garden. In this article, we will look at some of the most common pests and problems associated with growing tomatoes.

Fusarium and verticillium wilts are both caused by soil borne fungi. These fungi will infect the roots and crown of the vines and grow in the vascular tissue that transports water and nutrients. The plant’s ability to transport water will be diminished and it begins to wilt, even if there is adequate soil moisture available. When you cut through the stem of an infected plant, the vascular tissue will be discolored. There is no treatment once the plant is infected. Both of these diseases are more problematic with heirloom varieties, as most modern hybrids show good resistance. Look for a V or F on the seed packaging or plant tag to see if the variety has resistance. You will also commonly see either an N or T, which stands for resistance to nematodes and tobacco mosaic virus, respectively.

There are several foliar diseases that can be a problem on tomatoes. Early blight, late blight, and septoria leaf spot are fungal, foliar diseases that will form lesions on foliage. These lesions will eventually enlarge and coalesce, leading to leaf and stem death. These diseases typically begin on the lowest, older foliage and progress upward. Cultural practices that reduce moisture and humidity will reduce severity of disease. This can include proper spacing of plants, avoiding overhead irrigation, proper sun exposure, and weed control. The most common foliar disease is early blight (Alternaria solani). Early blight can be distinguished from late blight and septoria by the brown, concentric “bulls-eye” lesions surrounded by a yellow halo that can be found on the leaves, stems and fruits. The early blight pathogen overwinters in soil and old plant debris. New infections are frequently caused by rain splashing soil on foliage, but are also spread by spores from existing infections. Removing and destroying infected vines at the end of the season, sanitizing stakes/tools, and the use of plastic or mulch will help reduce the chances of early blight infection. There are preventative fungicides such as Daconil® or Bravo WeatherStik® that are labeled for use against early blight.

ATTENTION PRODUCERS!
Producers with premise ID numbers need to update their change of address, especially the new 911 addresses by contacting Shelly Lantz at the WVDA Animal Health Division at 304-558-2214.

The tomato hornworm is a large, green caterpillar with a pronounced “horn” on its rear and white and black markings in a V shape on its side. They have a voracious appetite and can defoliate a vine rapidly. You will rarely find more than a few hornworms in your garden, but those few will do a great deal of damage if left unchecked. Usually hand picking is the most appropriate control method. However, they are good at camouflageing themselves. Bacillus thuringiensis (Bt) is a microbial insecticide that will control hornworms and can be found in the brand names Thuricide® or Dipel®. Conventional insecticides labeled for tomato hornworms will also provide satisfactory control, but are rarely needed. It is common to find hornworms with many white projections extruding out of their backs. This is the pupa of a parasitic wasp that is an important predator to balance the populations of this pest. The wasps “sting” the caterpillar, laying eggs inside. The larvae feed upon the caterpillar from the inside before emerging to pupate. You should leave hornworms in this state alone to allow for the parasitic wasps to complete its development and attack more hornworms. While the hornworms are often still alive, they are done feeding in this weakened state and won’t cause any more damage.

Blossom end rot begins as a dark, water soaked spot and enlarges to a leathery, sunken lesion on the blossom end of the tomato. This may look like a disease caused by microbes, but is actually caused by a calcium imbalance in the plant. This is usually caused by a water imbalance that affects calcium uptake, such as the sudden onset of a drought on actively growing vines. Provide sufficient irrigation or use mulch/plastic to maintain an adequate supply of soil moisture. This can also be indicative of a calcium deficiency in the soil. Have your soil tested to determine your calcium and pH levels.

Sunscald and growth cracks are other factors that affect tomato quality. Sunscald will cause fruit discoloration where there is direct contact with the afternoon sun. Sunscald can be a common problem after a disease or insect has partially defoliated a vine. Growth cracks are caused when a tomato grows too fast. Growth cracks can either be vertical or extend horizontally around the tomato. This is by no means an exhaustive list of pests or problems you may encounter growing tomatoes. Other pests that may be found on tomato include the Colorado potato beetle, aphids, white flies, flea beetles, and the tomato fruitworm (AKA the corn earworm). Always read and follow the label of any pesticide before application! For more information, please contact the West Virginia Department of Agriculture, Plant Industries Division at (304) 558-2212.

Adam Champ
Plant Regulatory Officer
WVDA Plant Industries Divisions
Ag programs aiming to tackle RURAL POVERTY in West Virginia

A new U.S. Department of Agriculture (USDA) initiative in West Virginia will leverage federal resources and local enterprise to help fight poverty in 29 West Virginia counties. While the “StrikeForce for Rural Growth and Opportunity” has been active in other states, this is the first time it has been implemented in the Mountain State, according to USDA officials who visited Morgantown and Romney March 14 to officially roll out the program.

“The StrikeForce strategy of partnering public resources with local expertise is helping to grow rural economies and create jobs in persistent poverty communities,” said Dr. Gregory L. Parham, USDA Assistant Secretary for Administration.

State USDA offices in West Virginia – including the Farm Service Agency (FSA), the Natural Resource Conservation Service (NRCS) and Rural Development (RD) – will pool their programs’ resources to place extra focus on StrikeForce counties, according to USDA administrators.

“We have an enormous opportunity to create jobs and keep more of our food dollars at home if we can help farmers become more entrepreneurial in their outlook,” said West Virginia Commissioner of Agriculture Walt Helmick. “Agriculture is the biggest economic opportunity that currently exists in West Virginia. We consume more than $7 billion in food each year, and we produce less than $1 billion. And well over half of that value is in the commercial poultry and beef industries, not in fresh fruits and vegetables, nearly all of which are imported from elsewhere.”

An integral part of boosting West Virginia’s agricultural production is the implementation of high-efficiency farming methods. As part of the Strikeforce effort, NRCS anticipates additional funds for building and maintaining seasonal high tunnels – inexpensive, unheated and environmentally friendly structures that can extend growing seasons and dramatically boost production of fresh fruits and vegetables.

Commissioner Helmick noted that the structures are an integral tool for putting West Virginians to work while providing consumers with fresh and healthy fruits and vegetables.

“Having the StrikeForce initiative kick-off here is another example of USDA’s commitment to providing support and targeted technical assistance to local communities … to find positive solutions for the 29 counties in West Virginia most in need of support and services,” said Kevin Wickey, NRCS State Conservationist.

West Virginia Rural Development Director Bobby Lewis also noted that $410 million in federal money was spent in West Virginia last year on Rural Development programs that include a wide variety of low-interest loan programs for housing, infrastructure, business and community facilities.

USDA Food and Nutrition Service Administrator Audrey Rowe pointed out the rising number of working families that receive food assistance. One area of emphasis in the program, she said, would be to encourage awareness of eligibility for food security programs, including the Supplemental Nutrition Assistance Program (SNAP), Women, Infant and Children (WIC) nutrition program, and the Senior Farmers’ Market Nutrition Program (SFMNP), which is administered by the West Virginia Department of Agriculture (WVDA).

According to figures provided by USDA, 85 percent of America’s persistent poverty communities are in rural America. StrikeForce has partnered with more than 400 community organizations to support 80,000 projects that have brought nearly $10 billion in investments to economically depressed areas of rural America.

In West Virginia nearly 20 percent of rural residents and 25 percent of children live at or below the poverty line. Nearly 130,000 children are on the SNAP, 194,000 children receive free or reduced-cost school lunches, and 46,000 participate in WIC.


WV Woodland Owners Association 2014 Educational Tours

Harrison County:
Sat., May 10, 2014, 10 a.m.-1 p.m.

Randolph County (pending):
Sat., May 24, 2014, 10 a.m.-1 p.m.
More information coming soon.

Hardy County:
Sat., June 14, 2014, 10 a.m.-1 p.m.

Tucker-Randolph County:
Sat., July 19, 2014, 10 a.m.-1 p.m.

Nicholas County:
Sat., September 27, 2014, 10 a.m.-1 p.m.

Watch for more information at www.woafwv.org or contact Dan Magill at 304-293-9419 or dmagill@wvu.edu. RSVP to Magill by phone or email if you are attending.

USDA requires that cattle be officially identified before crossing state lines

The U.S. Department of Agriculture’s (USDA) Animal Disease Traceability (ADT) rule states that effective March 11, cattle moved across state lines are required to be officially identified and accompanied by an interstate certificate of veterinary inspection (ICVI). Cattle affected by this rule include: sexually-intact beef cattle over 18 months of age, all dairy cattle, and all cattle being moved for shows, rodeos or other exhibitions.

Current exemptions to the rule include beef cattle under 18 months of age and cattle identified before crossing state lines.

Official identification is an official ear tag. This can be either a metal NUES “brite” tag or a tag that bears a 15 digit identification number beginning with 840. The ear tag must also have the official ear tag shield imprinted on it. In order to purchase official ID tags, cattle owners must have a premise identification number.

For more information, contact Burke Holvey at 304-269-0598. For information on a Premise Id Number (PIN) contact Shelly Lantz at 304-558-2214.

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Local, in-season produce right around the corner!

Jean Smith, Director, WVDA Marketing & Development Division

It is so good to see the trees and flowers blooming! Folks are ready to plant flowers and vegetables and fortunately, we are quickly approaching the frost free dates for our state! Thanks to farmers who have invested in high tunnel greenhouses and other growing methods, we as consumers are able to enjoy locally grown fresh fruits and vegetables right now or in the very near future! As you visit farmers’ markets not only will you be able to purchase high quality plants, but high quality fruits, vegetables and herbs. – Happy Cooking!

Recipes

Fruity Chicken Pasta Toss

- ½ cup fresh sliced strawberries
- 1 tablespoon sugar
- 1 tablespoon balsamic vinegar
- ½ teaspoon salt, divided
- ¼ teaspoon pepper, divided
- 3 tablespoons olive oil
- 2 6-ounce boneless, skinless chicken breasts

1. Place ½ cup strawberries, sugar, vinegar, ¼ teaspoon salt and ¼ teaspoon pepper in blender, cover and process until smooth. While processing, slowly add the olive oil. Remove from blender, cover bowl and refrigerate until serving.
2. Cut chicken breasts in half and place on a lightly coated grill. Sprinkle chicken with remaining salt and pepper. Grill chicken until a thermometer registers 165°F – approximately 12 minutes.
3. Slice chicken. Combine lettuce or spring mix with pasta, chicken, onions and remaining 1 cup of sliced strawberries. Place in serving bowls and drizzle with dressing and top with pecans.

Caramel Mud Cake

- 1¼ sticks unsalted butter, diced
- 7 ounces caramelized white chocolate
- 1 cup, firmly packed dark brown sugar
- ¾ cup hot water
- 1 tablespoon golden syrup (search “golden syrup” online if you cannot find it locally)
- 2 teaspoons vanilla extract
- 2 large eggs, room temperature
- 2½ cups all-purpose flour
- 2 teaspoons baking powder
- ½ teaspoon salt

1. Preheat oven to 325°F. Grease round 10” springform cake pan and line base and sides with parchment paper.
2. Place butter, chocolate, sugar, water, golden syrup and vanilla extract in a medium, heavy-based saucepan. Stir over medium-low heat with a wooden spoon for about 3 minutes, until the butter has melted, the sugar has dissolved and the mixture is smooth (it will be the consistency of syrup). Pour into a large mixing bowl or the bowl of a stand mixer fitted with a whisk attachment and set aside to cool for about 30 minutes.
3. Add eggs, one at a time, beating well after each addition. Whisk together flour, baking powder and salt, then sprinkle over wet ingredients and whisk to combine.
4. Pour mixture into pan; bake 55-60 minutes, until a toothpick inserted into center comes out damp but with no more than a crumb or two.
5. Cool cake in pan for 20 minutes before turning onto a wire rack to cool completely before frosting.

Salted Caramel Buttercream Frosting

1. Using an electric mixer, beat the butter until light and fluffy, about 2 minutes.
2. Add caramel and vanilla and beat to combine well, about 2 minutes.
3. Add powdered sugar and salt and mix on low speed until sugar is incorporated, then beat on high until smooth, another 2-3 minutes.
4. Spread over top of cooled cake.

Salted Caramel Buttercream Frosting

- 1 stick (½ cup) unsalted butter, room temperature
- ½ cup salted caramel, room temperature (spoonable)
- ½ teaspoon vanilla extract
- ¾ cup unsifted powdered sugar
- ¼ teaspoon salt

Ham Kabobs

A great way to use the rest of the ham

- 1 20-ounce can of pineapple chunks
- ½ cup orange or peach marmalade
- 1 tablespoon mustard
- ¼ teaspoon ground cloves
- 1 pound fully cooked ham, cut into 1 inch cubes
- ½ pound Swiss cheese, cut into 1 inch cubes
- 1 medium pepper, cut into 1 inch pieces

1. Soak 8 wooden metal skewers in warm water for approximately 30 min.
2. Drain pineapple chunks, reserving 2 tablespoons of the pineapple juice.
3. Set pineapple aside. For the sauce, in a small bowl, mix marmalade, mustard, cloves and 2 tablespoons pineapple juice.
4. Remove skewers from water and pat with a paper towel to remove excess water. On skewers alternately thread ham, cheese, pineapple and pepper. Moisten a paper towel with cooking oil. Rub on grill rack or grill pan to lightly coat. Grill uncovered for approximately 5-7 minutes or until well heated. Baste frequently with sauce and turn frequently.

Rhubarb Salsa

- 2 cups rhubarb, diced small
- 2 limes, juiced
- 1 cup chopped apple
- 2 tablespoons honey
- 3 green onions, chopped
- 1 jalapeno pepper, seeded and chopped

1. Bring a pot of water to boil over medium heat and stir in rhubarb; simmer for 2 minutes, then blanch. Drain in colander, then set in the sink and let cool.
2. Stir together the cooled rhubarb, apple, green onions, lime juice, honey, and jalapeno pepper until thoroughly combined.
In addition, youth are preparing for the State 4-H Dog Skillathon to be held in conjunction with State 4-H Days, July 25 in Morgantown.

The Multi-Disciplinary State 4-H Shooting Sports Camp was held April 4-6, 2014 at the Gilmer County 4-H Recreational Center in Glenville, WV with 62 youth and 29 shooting sports instructors/chaperones in attendance from 20 counties throughout the state. The youth enhanced their skills and knowledge in the disciplines of air rifle, air pistol, shotgun, black powder, archery, and wildlife/hunting conservation. In addition, a special ATV safety course was taught to senior 4-H members. Special highlights of the weekend were guest speakers: Corbet Patton and Tony Coffman of the Appalachian Outlaws TV Show. They shared their views on the development and growth of the ginseng industry and additional opportunities in wild harvesting; Secretary of State, Natalie Tennant who shared her experiences as the Mountaineer and shot her Kentucky Long Rifle at the Muzzleloading range; Sydney Smith, a former Wayne County Shooting Sports 4-H’er and now a member of the WVU Rifle Team. She shared how she entered into the competitive shooting arena and balancing study and practice as a WVU Rifle team member; and Dr. Sheldon Owen, WVU Wildlife Specialist who encouraged the youth to dream big and strive to make the best better. Other evening activities included STEM (Science, Technology, Engineering, and Math) stations ranging from Shooting/Artillery Science (Alka-Seltzer cannons, Marshmallow catapults, and Stomp rockets) and Outdoor/Wilderness Survival (Building a compass, UV Bead bracelet making experiment (used as a guide for sun exposure and sunscreen use), Making a Star Wheel (star and constellation chart by season and location); Learning your knots; and a session with Rick Sypolt of the WV Chapter of the American Chestnut Foundation on the program to reestablish the American Chestnut as a viable hardwood. The camp also participated in a generosity activity with each camper bringing a non-perishable food items that were donated to the Gilmer County Food Pantry. Ours thanks to the WVU Extension Service and Friends of NRA for their support.

A State 4-H Shooting Sports Instructors’ Training Weekend was held February 21-23 at WVU Jackson’s Mill. The purpose of the State 4-H Shooting Sports Workshop was to certify adult volunteer leaders who wish to become instructors to teach in their respective counties. Adult volunteer leaders must be 21 years of age (on or before January 1, of the current year). Each person attending was certified in only one area of competency (Wildlife Conservation/Hunting, Air Rifle, Air Pistol, Shotgun, Muzzleloading, and Archery) at this workshop.

For more information on these and other WVU 4-H Programs, contact your local WVU Extension Office or check the Web at www.ext.wvu.edu.

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