Greetings,
Summer and Fair Season has arrived. Last year at this time we were dealing with a lot of wet weather. This year we are dealing with being extremely dry in some areas. Hopefully next week during the fair the weather will be nice for both the exhibitors and the animals.

Next week is the 166th Carroll County Fair, starting Tuesday, July 19th through the 24th. The fair is all about food, fun and family, so come out and enjoy. This year there will be a poultry show that will include chickens, turkeys and market ducks for the first time. Included in this letter are other local County fair dates and ways that everyone can participate in the Carroll County fair.

Again this year, Carroll County – OSU Extension will be moving our office to the fair for the week. We will have an exhibit area in the Exhibit Hall across from Soil and Water Conservation District and Backyard Food Production Community Garden. We will also have the Educational tent located near the track and the Rosebud building. If you need assistance during the week please call my cell phone (330-417-6322) or find me at the fair. I invite everyone to come to the fair and support the exhibitors and check out the new things happening at the Carroll County Fair this year!

Until next time (September/October),

Sandy Smith
ANR Educator/County Director
Backyard Food Production Program

Make plans now to join us as we continue with our monthly sessions of the Backyard Food Production Program. We have some great topics lined up. Be sure to call the Carroll SWCD office or the Extension office to let us know you are coming so that we can have enough handouts ready for everyone.

PLEASE NOTE: There will NOT be a session held in July – However – be sure to visit us during the Carroll County Fair where we will be holding daily sessions on interesting topics!

Carroll County Fair Schedule of Events

Below is a list of just a few of the events happening at the fair!

**TUESDAY**
9AM  Open Class Dairy
Noon  Harness Racing begins

**WEDNESDAY**
9AM  Pedal Pulls
12:30PM  Open Class Beef
6:30PM  Jr Fair Still Project Auction
7:00PM  ATV Races Begin

**THURSDAY**
5:00PM  Open Class Sheep
7:00PM  Tractor Pulls

**FRIDAY**
6:00PM  Jr Fair Large Animal Auction
7:00PM  OSTPA Tractor & Truck Pulls

**SATURDAY**
8:30AM  "Back to the Barn" run/walk
1:30PM  Jr Fair Small Animal Auction
7:00PM  Full Pull Productions
9:00PM  Square Dance

**SUNDAY**
10:00AM  Church Service
2:00PM  Combine Derby

Pesticide Applicator Test Dates

August 24th at 10:00am
October 17th at 10:00am
December 15th at 1:00pm

Do you need your Pesticide Applicator License? The Carroll County Office will be hosting the test offered by the ODA 3 more times before the end of the year. If you would like additional information, or assistance signing up online for the test, please feel free to call the office. Study guides are also available for purchase at the office.

Backyard Food Production Program

Topics:
Growing Grapes and Producing Wine
Health Benefits of Wine and Grapes
Growing Giant Pumpkins and Veggies

*This is a potluck, bring a dish to share!*

**THURSDAY**
September 8
6:30PM

**LOCATION:**
Twigg Winery
4155 Meter Rd. NE
Mechanicstown, OH 44651

Please call to register for this workshop so that we may have enough handouts available for all attendees. Please call Carroll SWCD at 330-627-9852 or the Extension office at 330-627-4310.
What Can You Exhibit at the Fair?

Do you have a talent that you would like to show off at the fair? Do people fight for your peanut butter cookies or apple pie at family gatherings? Do you have a talent for growing vegetables and flowers? Check out the many categories that you can enter at the fair! Following are a small sampling of the entry choices that are available to you. Pick up a fair book from the Senior Fairboard office located under the grandstands for more information.

Grains & Forage - Wheat, Oats, Field Corn, Barley
Vegetables - Potatoes, Onions, Beans, Beets, Cucumbers, Cabbage, Squash
Baked Goods - Cakes: Carrot, Pound, Cupcakes, Spice, Angel food
         Cookies: Ginger, Cut-Outs, Sugar, Peanut butter, Chocolate Chip
         Quick Breads: Blueberry muffins, Coffee Cake, Zucchini Bread
         Pies: Apple, Cherry, Blackberry
Canned Fruit, Vegetables & Jelly, Etc
         Fruits: Peaches, Pears, Cherries
         Vegetables: Beets, Tomatoes, Corn, Carrots, Green beans
         Jellies and Jams: Grape, Peach, Cherry, Strawberry, Quince
         Pickles: Bread & Butter, Dill, Sweet
Horticulture Division - Section 1: Roses Section 2: Cut Flowers (Annuals) Section 3: Cut Flowers (Perennials)
Domestic Manufacture - Bedding: Machine Quilted, Hand Quilted, Embroidered
Afghans: Crocheted, Knitted
Machine Sewing: Western wear, quilted wall hanging, place mats
Fancy Work - Embroidery: Centerpieces, towels
Children’s Art - Paintings in Watercolor Pencil and Ink Sketching
Amateur Photography - Portrait, Animals, Landmarks

UPCOMING FAIR DATES!
Ohio State Fair (Columbus)          July 27- August 7
Columbiana County Fair (Lisbon)        August 1-August 7
Holmes County Fair (Millersburg)      August 8-August 13
Mahoning County Fair (Canfield)        August 31 – September 5
Belmont County (St Clairsville)        September 6 – September 11
Wayne County (Wooster)                September 10 – September 15

Carrollton Farmers Market

EAT FRESH
BUY LOCAL

SATURDAYS!
FROM
8:00 am to Noon

LOCATION:
Dollar General Market Parking Lot
1305 Canton Rd NW

OSU Extension will be participating in the market this year. Interactive displays and fun activities are being planned for the first Saturday of each month. Mark your calendar to attend the following Saturday morning events:

August 6
Tomatoe/Tomahto

September 3
An Apple a Day!

October 1
Simply Squash.

You can follow the Carrollton Farmers Market on Facebook by going to www.facebook.com/carrollfarmmarket. If you are interested in becoming a vendor at the market, please contact Doug Hood (Chairperson) at 330.602.2787.
Orchard Sprayer Technology Field Day

An orchard sprayer technology field day is scheduled for **Thursday, August 18** at Moreland Fruit Farm, located at 1558 West Moreland Rd., Wooster OH (44691). The field day will begin with registration at 3:00 pm and conclude by 7:30 pm. The field day will feature sprayer demonstrations and will provide a glimpse of the future; introducing participants to the “Intelligent Sprayer” technology.

Fruit and nursery growers rely on pesticides to protect their crops against insects and diseases. Current sprayers used by the growers apply pesticides at a constant rate regardless of large variations in canopy size, leaf density, plant spacing, and gaps within target trees. Researchers of USDA’s Application Technology Research Unit located at the OARDC Wooster campus and at The Ohio State University Columbus campus designed a laser-guided sprayer which recognizes those variations and immediately stops spraying when there are no trees, and other times continues spraying along with changing the application rate in real time based on variations in canopy size (height, width, depth) and leaf density. This intelligent sprayer is the only one of its kind in the world that has proven to provide equal pest control to that achieved from conventional sprayers while operating at a significantly lower spray volume. Trials with the intelligent sprayer have shown reductions in pesticide use of 47-70% compared to conventional orchard sprayers and annual chemical savings of $140 to $280 per acre.

Field day participants will have the opportunity to see comparisons of conventional, current technology orchard sprayers and intelligent sprayer technology operated side by side. There will be discussions and demonstrations of how any type of sprayer can be used more effectively and efficiently to get the best results possible. Heping Zhu, USDA-ARS, lead scientist of the intelligent sprayer team and Erdal Ozkan, OSU Extension Sprayer Technology Specialist will be on hand to lead the sprayer demonstrations, explain the intelligent sprayer technology, show participants how to adjust sprayers for more efficient and effective use, lead discussions and answer questions. Fred and Steve Finney of Moreland Fruit Farm who are field testing the intelligent sprayer will be on hand to talk about on-farm results and savings noted compared to their conventional orchard sprayer. Participants will have the opportunity to visit with and hear from event sponsors exhibiting and displaying orchard sprayers, equipment and supplies.

**Pre-registration is requested** and the registration **cost is $5 per person** which includes handout materials and a light supper. Pre-register by **Thursday August 11** to the Wayne County Extension office by phone at 330-264-8722 or by email to Sutton.281@osu.edu. An informational flyer and registration form is available on the Wayne County Extension web site at: [http://go.osu.edu/agwayne](http://go.osu.edu/agwayne).

The Orchard Sprayer Technology Field Day is presented by Moreland Fruit Farm, OSU Extension, and USDA-ARS.
Palmar Amaranth

-Eric Barrett, Mahoning County ANR Educator

Palmar Amaranth issues are arising in neighboring counties. Fields with these weeds continue to be identified due to education and the persistence of ag businesses in the area. The situation is serious, as this weed produces up to 500,000 seeds per plant. It can grow up to three inches per day. Most populations are resistant to glyphosate and ALS inhibitors (site 2).

WHAT CAN YOU DO ABOUT AN INFESTATION?

- Palmer amaranth plants are already ahead of the crop. There is no herbicide program that is effective at this stage.
- Plants without mature seed (black) should be pulled out (uprooted) or cut off just below soil and removed from field, and then burned or buried at least a foot deep or composted. Plants with mature seed should be bagged and removed from field.
- If the Palmer amaranth population is too dense to remove from the field, some decisions need to be made about whether or how to harvest. Harvesting through patches or infested fields will result in further spread throughout the field and also contamination of the combine with Palmer amaranth seed that can then be dispersed in other fields. So consider:
  1) not harvesting areas of the field infested with Palmer amaranth, and
  2) harvesting the infested field(s) after all other fields have been harvested, and cleaning the combine thoroughly before further use. This also applies to any Palmer amaranth infestations that are discovered while harvesting. NOTE: The stem of this plant can be over 3” in diameter at the soil surface.

DON’T THINK YOU HAVE IT?

- Develop a scouting strategy for your farm. Help your neighbors identify this plant.
- Use these photos and details to watch for this as you drive through the county: http://go.osu.edu/palmerid
- Get help with identification if in doubt. Call us for help or to connect with others who can assist – 330-627-4310.

Read more about the status of Palmer Amaranth in Ohio here: http://go.osu.edu/palmerstatus
Corn Pollination Underway in Early Planted Fields

By Peter Thomison

According to the National Agricultural Statistics Service for the week ending 7-10-16, 7% of the state’s corn was silking compared to 17% for the 5-year average. Given the range in corn planting dates this year, some late planted (corn planted in early-mid June corn) may not achieve tasselling and silking until late July. The pollination period, the flowering stage in corn, is the most critical period in the development of a corn plant from the standpoint of grain yield determination. Stress conditions (such as hail damage and drought) have the greatest impact on yield potential during the reproductive stage. The following are some key steps in the corn pollination process.

Most corn hybrids tassel and silk about the same time although some variability exists among hybrids and environments. On a typical midsummer day, peak pollen shed occurs in the morning between 9:00 and 11:00 a.m. followed by a second round of pollen shed late in the afternoon. Pollen may be shed before the tassel fully emerges. Pollen shed begins in the middle of the central spike of the tassel and spreads out later over the whole tassel with the lower branches last to shed pollen. Pollen grains are borne in anthers, each of which contains a large number of pollen grains. The anthers open and the pollen grains pour out in early to mid morning after dew has dried off the tassels. Pollen is light and is often carried considerable distances by the wind. However, most of it settles within 20 to 50 feet.

Pollen shed is not a continuous process. It stops when the tassel is too wet or too dry and begins again when temperature conditions are favorable. Pollen stands little chance of being washed off the silks during a rainstorm as little to none is shed when the tassel is wet. Also, silks are covered with fine, sticky hairs, which serve to catch and anchor pollen grains.

Under favorable conditions, pollen grain remains viable for only 18 to 24 hours. However, the pollen grain starts growth of the pollen tube down the silk channel within minutes of coming in contact with a silk and the pollen tube grows the length of the silk and enters the female flower (ovule) in 12 to 28 hours. A well-developed ear shoot should have 750 to 1,000 ovules (potential kernels), each producing a silk. The silks from near the base of the ear emerge first and those from the tip appear last. Under good conditions, all silks will emerge and be ready for pollination within 3 to 5 days and this usually provides adequate time for all silks to be pollinated before pollen shed ceases.

Pollen of a given plant rarely fertilizes all the silks of the same plant. Under field conditions, 97% or more of the kernels produced by each plant may be pollinated by other plants in the field. The amount of pollen is rarely a cause of poor kernel set. Each tassel contains as many as 2 million or more pollen grains, which translates to at least 2,000 pollen grains produced for each silk of the ear shoot. Shortages of pollen are usually only a problem under conditions of extreme heat and drought. As noted above, poor kernel set is more often associated with poor timing of pollen shed with silk emergence – with silks emerging after pollen shed (poor “nick”). However, hybrids rarely exhibit this problem unless they experience extreme drought stress. Some of the new drought tolerant hybrids have shorter “anthesis silking intervals”, i.e. pollen shedding and silk emergence are more closely synchronized than hybrids more susceptible to drought. This shorter anthesis silking interval mitigates the impact of drought stress during pollination.
Plants of Concern to Livestock in Summer

-Clif Little, OSU Guernsey County Extension Educator

It seems like one of those years when growing conditions start off great but then we move into dry and hot conditions at the peak of summer. With such conditions we will have an increased potential for livestock poisonings. As summer progresses the preferred forages for grazing dry up and become less available and animals are forced to consume plants they might otherwise not eat. Therefore, there are recognizable circumstances like drought, overgrazing, nitrogen fertilization and summer storms that all have the potential to contribute to livestock poisoning. So what are some plants of concern for grazing livestock during these dry conditions in Ohio?

**Buttercup:** Beautiful small yellow flowers are common in pastures. Buttercup starts blooming in June and produces many typically bright yellow flowers of 5 or more petals with flowers spreading ¾ to an inch in width. Tall buttercup and creeping buttercup are very aggressive perennials in pastures and can quickly overtake the field. Buttercup contains a bitter, irritating oil called protoanemonin that is poisonous to livestock. The toxicity is reported to vary depending on plant age, growing conditions and freshness of the forage. The oil in fresh plant stems cause irritation and blistering of the skin, lining of the mouth and of the digestive tract. Thankfully, buttercup does not taste good so animals avoid it if possible. In dry conditions this may be one of the few green plants available and livestock are more likely to eat it. The toxic oil evaporates quickly, so hay containing buttercup is not toxic.

**Nightshade Family of Plants:** In Eastern Ohio, horse nettle, groundcherry, black and bittersweet nightshade are most common. Some quantity of nightshade can be found in many pastures and are usually left alone. Consequently, nightshade populations slowly begin to occupy larger and larger portions of a pasture. During a drought livestock will consume the leaf and berries of these plants and they can be deadly.

**Dogbane & Milkweed:** These are closely related perennial plants commonly found in pastures and hay fields. If you have ever removed a leaf from these plants you will notice a very sticky white milky substance. The leaves and stems of these plants are considered toxic when fresh or dried. These plants don't mind a little dry weather and consequently become more attractive to livestock during these conditions.

**Jimson Weed:** Is a summer annual that looks more like a small shrub with reddish stem. You often see this plant around brush piles, hay feeding areas and barn lots. The fruit of this plant is encased in a very sharp and spiny outer covering. The leaf is large, waxy and looks something like an oak leaf. This plant is very common and not often eaten. The tropane alkaloids in this plant and seeds are considered extremely toxic when fresh, dried or in silage.

**Yew or Taxis evergreen Shrub:** So you needed to trim the bushes, and you thought you would help the livestock by providing a little extra fodder? Hope it wasn’t a yew. These evergreen shrubs with flat needles and a red berry are readily consumed by livestock and are highly toxic. These shrubs are poisonous wet or dried.

As we move into dryer conditions be aware of your forage availability and identify plants which may be of concern. We have only mentioned a few plants and there are many you should know. Watch your livestock closely, daily observing for signs of distress contact you veterinarian immediately if you suspect plant poisoning.
Celebrate!
July is National Pickle Month!

July is National Pickle Month and we are celebrating with a blue-ribbon recipe for homemade dill pickles from the 2015 Ohio State Fair.

Recipe by Carol Palantekin, Dublin, OH

Yield: 7 pint jars

Ingredients:
- 10 pounds pickling cucumbers
- 3 1/3 cups white vinegar (5% acidity)
- 7 1/3 cups water
- 1 pkg (6.5 oz) Mrs Wages Quick Process Dill Pickle Mix
- Fresh Dill
- 10-20 garlic cloves

Instructions
- Wash jars in hot soapy water, rinse well. Sterilize for 10 minutes in boiling water and hold in hot water.
- Wash and drain pickling cucumbers cut 1/16-inch from blossom end.
- Pack into 10 sterilized, hot pint jars, along with fresh dill and 1-2 garlic cloves in each jar (I had to cut cucumbers into spears to fit in required pint jars).
- Combine Dill Pickle Mix, vinegar and water in a large non-reactive pot.
- Bring mixture just to a boil over medium heat, stirring constantly until mixture dissolves.
- Evenly divide hot pickling liquid among the packed jars, leaving ½ inch of headspace.
- Remove air bubbles and cap each jar as it is filled. Remove air bubbles and wipe rims. Adjust lids and process using boiling bath water method for 10 minutes.

Farm Science Review 2016

Save the Dates now to attend the Annual Farm Science Review! This annual event is held at the Molly Caren Agricultural Center in London, Ohio.

Tuesday and Wednesday, September 20-21st
8:00am to 5:00pm
Thursday, September 22
8:00am to 4:00pm

Tickets are available at the office for $7.00 or they are $10.00 at the gate.
Stress Management During Tough Financial Times

-Rory Lewandowski, Extension Agriculture Educator, Wayne County

There is no doubt that the production agriculture sector is going through a tough financial period. In particular, low crop prices and low milk prices are severely impacting row crop and dairy producers. Financial stress in the farm business often equates to stress within the farm family and can extend to farm employees. Harmful stress needs to be recognized and managed for personal health, family health, and health of the farm business.

Some stress is a normal part of life. Stress can motivate us to get things done or to make adjustments in our life that balance the stress or maybe remove the stress. However when stress events begin to add up or stressful events are added that don’t allow us to adjust or that are beyond our resources to adjust, then stress begins to be harmful. Symptoms of harmful stress, as well as mechanisms and the ability to cope with stress, will vary depending upon the individual. It is important to recognize some common symptoms of stress, and if these symptoms continue for prolonged periods of time to devise a plan to manage stress. Some common symptoms of stress include: feeling tired all the time, inability to relax, disrupted sleep pattern, irritability, anger, problems getting along with people, anxiousness, feelings of being overwhelmed, emotional outbursts, trouble concentrating, headaches, frequent illness, increased alcohol or tobacco use, and withdrawal.

Developing and maintaining avenues of communication can help farm families cope with stress during tough financial times. Communication is vital to help relieve the burdens of financial stress and to help generate ideas for problem solving, how to cut production costs, and/or how to increase efficiency or productivity. Regular communication during stressful financial times can help to reduce a negative environment and to prevent finger pointing and blaming. It is natural to look for a source to blame, but in the current farm economy, low prices are not the fault of any farm manager, family member, or farm employee. In addition, it is known that often just being able to talk about financial problems or feelings of frustration, helplessness, and anxiety can be helpful to mental and emotional health.

In a family farm situation, it may take an extra effort to maintain communication during stressful financial times. Try to put some “structures” in place that will help facilitate regular communication. An example of this is regularly scheduled family or farm business meetings. Meetings should have planned agenda items and a set starting and ending time. Some ground rules should be in place that provide opportunity for everyone to speak and that prevent any kind of personal attacks or blaming. The focus should be on the farm business. One of the topics on the agenda might be an update of the current farm financial situation. This update allows all family members and farm employees to understand the current farm situation, can squash any rumors that may have started, and can help family members and farm employees understand why repairs instead of new purchases are being made, why withdrawals for family living are being maintained or decreased, and why employee pay raises may be delayed or decreased. Sharing financial information within this type of business meeting structure can empower family members, employees to feel valued as a team member, and new ideas about how to meet financial challenges may be generated.

Communication is vital during times of financial stress, and in addition to communicating with family members and farm employees, the farm owner or manager should have a support network that understands the farm’s financial situation. Someone who can look at the farm situation from a non-personal perspective and that is not as emotionally invested in the farm operation can provide some clearer thinking and/or information that can be helpful in making decisions. People in this support network also may provide a sympathetic ear that allows some of the financial stress burden to be shared. These are people that want to see your farm succeed and be passed on to the next generation. This support network can include your lender, equipment dealer, seed/fertilizer dealer, financial advisor, nutritionist, veterinarian, Extension educator, tax preparer, or other trusted advisors.

We gratefully acknowledge the continued help and financial support of our Carroll County Commissioners; Robert Wirkner, Jeffrey Ohler and Thomas White.

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