

NIKKI'S NEWSLETTER



Cooperative Extension
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Marshall County
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extension.ca.uky.edu

Marshall County's Agriculture and Natural Resources Update

What is happening in Agriculture at the Extension office? Lot's! There will be a hay rationing program in October where producers can earn free hay samples (page 2.) We have started a beekeeping club entitled the "Clarks River Beekeepers" (page 3.) The small diversified farm schedule has been finalized (page 7.) Also, the 2021 Farm to Fork Dinner is quickly approaching. The dinner is at the KY Dam Convention Center on Saturday, September 18th at 5:30. Some of you have already received letters but for those who haven't, I would like to announce that there are **free tickets available to Marshall County farmers**. It's time the farmers of this community were recognized! There will be a large meal prepared with locally sourced products, farmer awards, farm history and a portion of the proceeds will be used for scholarships for the FFA and culinary programs at the MC high school. Contact the Extension Office by September 1st to request up to two free tickets. There is a limited quantity therefore, it is first come first serve. You can also purchase additional tickets for \$35. See page 6.



As always, stay cool! You know where to find me!

Forage Timely Tips for August

- Do NOT graze cool-season pastures closer than 3 to 4 inches. This will help conserve soil moisture and prevent overheating of plant crowns.
- If drought conditions limit pasture growth, close off pastures and feed hay in a sacrifice area.
- Graze warm season annuals or perennials to allow cool season grasses to recover and to avoid endophyte-infected fescue.
- After the first good rain in August, seed winter annuals (such as small grains, ryegrass, crimson clover, and brassicas) for late fall and early spring grazing.
- Consider renovation of cool-season grass pastures that have thinned.

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Hay Quality for Cattle Rationing Workshop



Hay! You Need to be Sampling!

The Marshall County Extension Office is offering a free workshop. The first 25 beef producers who register for the workshop, return a hay sample by the deadline of October 1st and attend the workshop will receive their sample results at no cost (a \$18 value!) Hay sampling probes can be borrowed from the Extension Office for no fee.

At the workshop, Dr. Vanvalin, University of Kentucky Specialist for Beef Cattle Nutrition will demonstrate how to fine tune your rations based on your hay sample results.

Workshop Info:

Tuesday, October 26th 2021

5:30 pm- ?

Bring your sample results,
operation information and questions!

Location:

Marshall County Extension Office
1933 Mayfield Highway,
Benton KY, 42071

RSVP by Calling 270-527-3285 or in person when dropping off your sample



JOIN US!

Cooperative Extension
Service Marshall County
1933 Mayfield Hwy
Benton, KY 42025
(270) 527-3285
marshall.ca.uky.edu

Clarks River Beekeepers

EVERY 2ND TUESDAY AT 6PM
AT THE MARSHALL COUNTY EXTENSION OFFICE

Agriculture Exemption Number Now Required for Tax Exemption on Farm Purchases

Jennifer Rogers, Area Farm Management Specialist

A new Kentucky law requires that farmers apply for an Agriculture Exemption Number to make qualified purchases for the farm exempt from sales tax. The application Form 51A800 is currently available on the Department of Revenue website here: [https://revenue.ky.gov/Forms/51A800%20\(4-21\)_fill-in.pdf](https://revenue.ky.gov/Forms/51A800%20(4-21)_fill-in.pdf)

The application requires verification of agricultural activity. Any one of the following documents may be submitted with the application: IRS Schedule F, Profit or Loss from Farming, IRS Form 4835, Farm Rental, Income and Expenses, Farm Service Agency number, and Other types of verification. Once approved, the Department of Revenue (DOR) will issue an Agriculture Exemption Number by letter. The number must be renewed every three years.

The Agriculture Exemption Number does not exempt purchases from sales tax. It must be used with Form 51A158 Farm Exemption Certificate for farm purchases and machinery, and with Form 51A159 Certificate of Exemption for Materials, Machinery and Equipment for construction of farm facilities. These certificates must be presented to each vendor or supplier along with the DOR letter.

Farmers may still use Forms 51A158 and 51A159 without an Agriculture Exemption Number through June 30, 2022 by using their driver's license number. Exemption Certificates without an Exemption Number will expire and no longer be valid as of July 1, 2022.

Forms 51A158 and 51A159 both list specific items that qualify for exemption from sales tax on purchases of farm-related items. For more detail on exempt purchases see Kentucky Revised Statutes (KRS) 139.480.

KRS 139.481 was passed in the 2020 legislative session and became effective January 1, 2021. It is intended to improve the way farmers register tax exemption on sales of qualified purchases with vendor and suppliers. Businesses will also have access to a database for use in confirming the agriculture exemption number.

For more information farmers may contact the Division of Sales and Use Tax at (502)564-5170, option 1, or at DOR.Webresponsesalestax@ky.gov.

Abrupt Presence of Fall Armyworms in Double-Crop Soybeans in Kentucky

By Raul J. Villanueva, Entomology Extension Specialist.

The larval stage of the fall armyworm (FAW), *Spodoptera frugiperda* (Lepidoptera: Noctuidae) is a voracious defoliator of many plant species. The FAW is a native pest of the New World; however, it overwinters in south Florida or in the southernmost region of Texas (The Rio Grande Valley) in the continental USA. The adults are strong fliers and move northward during the summer months. In double-crop soybeans, fall armyworms can be devastating defoliators affecting plants from the seedling to V4 stages.

FAW started to appear in Kentucky at the end of June to beginning of July, but as they continue their migration pathway to northern areas, they can also have large populations during the fall. This migration covers most states east of the Rocky Mountains and includes several provinces of Canada (for example Ontario, Quebec, Nova Scotia). Fall armyworms were found in Africa 5 year ago; now this insect is a well-established pest in different African countries and is causing severe damage in many crops.

Problem

During the last 2 weeks, there have been reports of FAW outbreaks affecting forages, sorghum, and soybeans (although corn is affected, I have not heard of any damage in this crop). This has been happening in several counties of Central and Western Kentucky from La Center to Bowling Green (Ballard and Warren Counties, respectively). Crop consultants and County Extension agents started to notice this event and warned growers in Lyon and Ballard counties. Small larvae skeletonize the lower leaves; large larvae feed over the whole plant. Severe damage caused by FAW in a commercial field of double-crop soybeans in Central Kentucky is shown in Figures 1A and 1B. In most cases, severely damaged plants can have a ragged appearance or be left without leaves (Figure 1A).

The pheromone-based trap in Princeton recorded 152, 280, and now 340 FAW moths through the last 3 weeks (July 9 to July 30), indicating that moth flight may not have peaked. Also, egg masses were observed in some crops. Moths in Lexington traps have not been detected.

Biology

Female FAW (Figure 2) deposit egg masses of 50 to 200 eggs per cluster. Clusters are covered with scales (Figure 3). A single female can produce up to 2,000 eggs during its life span. Fall armyworm larvae emerge (Figure 4) and start to feed on plants causing unnoticed defoliation while they are small. However, as they molt to the next developmental stages (Figure 5), their appetite increases, and the defoliating damage is greatly noticed by farmers and scouting agents. The FAW has six larval instar that can be completed in 14 to 30 days, depending on the temperature. Fall armyworm resembles corn earworm and armyworm; however, fall armyworm has a white inverted "Y" mark on the front of the dark head (Figure 5). Pupation occurs in the ground and adults can live up to 20 days.

Management

The late vegetative stage of soybeans can support heavy feeding and can tolerate nearly 100% foliage loss during the early vegetative stages before yield loss is achieved. However, if double-crop soybeans are affected in the early seedling stage, the results may be devastating.

Alarming reports have been broadcast in local news about the widespread damage caused by FAW and the lower efficacy of pyrethroids in some fields. This was explained as an increase in resistance by FAW; however, if insecticides were utilized

Figure 1. (A) Close-up of a soybean plant left without any leaves and a larger than 3/4-inch FAW on the tip of plant (Photo: Todd Elkins)



Figure 1. (B). Soybean field damaged by fall armyworms. (Photo: Todd Elkins)



when larvae were larger than $\frac{3}{4}$ inch, the level of control maybe diminished compared with a greater efficacy against larvae that are smaller.

Insecticides, such as pyrethroids, are effective against this pest, but is known that their efficacy decreases for late larval instars. Early detection of infestations will allow for more effective control of this pest if larvae are larger than $\frac{3}{4}$ inch in length. In corn, the larvae can form a frass plug in the whorl, and this reduces the ability of insecticides to contact the larvae. A dual mode of action insecticide with systemic capabilities, may be used.

In soybeans Leverage® 360 (imidacloprid + cyfluthrin) at 2.8 fl. oz/A is effective for the 1st and 2nd larval stages; however, Leverage® 360 is not registered for corn in KY. Also, for late stages of FAW larvae (greater than $\frac{3}{4}$ inch), probably a dual mode of action insecticide, such as Besiege® (chlorantraniliprole + lambda-cyhalothrin) at 8-10 fl. oz/A, Hero® (zeta-cypermethrin + bifenthrin) at 4-10.3 fl. oz/A; Elevest® (bifenthrin + chlorantraniliprole) at 5.9-9.6 fl. oz/A) may be more effective than single mode of action products.

For all these insecticides, the use of high volumes of water will generally result in better coverage, especially under adverse conditions (e.g., hot, dry) or where a dense plant canopy exists, especially if the FAW migration continues. These types of migratory waves are of short duration and rarely will be duplicated; however, FAW can be present until the fall.



Figure 5. A distinctive, light-colored inverted "Y" mark is present on the head capsule of fall armyworms. Also, pay attention to coloration changes of FAW larvae (Photo: Raul Villanueva, UK)

Insect Thresholds

In soybeans, a threshold for FAW is not well established, but you can use the following: control is required if egg masses are present on 5% of the plants, or 25% of plants are infested with larvae.

Although damage has not been observed in corn, insecticide treatments must be applied before larvae burrow deep into the whorls or enter ears of more mature plants. If sweeping with a 15-inch sweep net, an average of 9 larvae per 25 sweeps would indicate a need for control. The thresholds used in North Carolina for defoliating insects is 30% defoliation throughout the plant canopy 2 weeks prior to blooming (R1) and 15% defoliation throughout the plant canopy 2 weeks prior to flowering (stage varies) until the pods have filled (R7-R8).



August 20

**Mushrooms: Megan Buland,
University of Kentucky**

Master Naturalist Summer Zoom Series

Friday morning Webinar Series at 9 am

Aug 13: Prescribed Fire, Josh Lillpop, Kentucky Nature Preserves

Aug 20: Mushrooms, Megan Buland, University of Kentucky

Aug 27: Lichens, Kendall McDonald, Kentucky Nature Preserves

https://uky.zoom.us/webinar/register/WN_xiazhXd0Qi-1BnzroYsbOw

2020 Annual Flower Trial Recap

Kathy Nord, Marshall Master Gardener

The Marshall Master Gardeners Association received test varieties of annual flowers ten of each species which included Ageratum, Angelonia, Bidens (2), Calibrachoa (2), Impatiens (3), Lantana (3), Petunia (3), Solenostemon (3) and Verbena (2). Number after the names represents how many different Genus we had been given. They were new varieties on the market.

All were planted in our Donation Garden which also includes a variety of vegetables. The garden had been covered with chopped leaves in the winter of 2019. In the spring of 2020 fertilizer was applied according to the soil test. Around May 21, 2020, all 200 flowers were planted 12 inches apart. Preen Garden Weed Preventer was sprinkled around each plant. On June 5th hardwood mulch was put around the entire flower area.

The season started out with a lot of rain so the soil was fairly wet when we planted. The high temperatures for the month of June was 91.3 degrees, for the month of July was 92.8 and for the month of August was 91.3. June was a very dry month with only 3.98 inches of precipitation. July had 6 inches of precipitation. August had 2.94 inches of precipitation. Many nights stayed very warm. Very humid all three months. Thankfully two of our male MGs installed an irrigation system so the garden was able to be watered.

By mid-August the Calibrachoa (Million Bells) had died. The Petunias were looking pretty bad and died by September. The Bidens were not doing so well. No disease was present so we are thinking it was the very hot weather that caused these bedding plants to not perform well this year. One of the Verbena and one of the Lantanas were not in full flower, but by September were looking much better.

Some of our top performers were the Ageratum (Dark Pink), Angelonia (Cherry Red) although by September the plants still looked very good but had very few flowers. The following flowers required no deadheading, had no disease and were a joy to watch all season.

Sun Impatiens (Magenta, Blushing Orchid and Compact Tropical Rose) – They flourished in the sun. The Magenta is a bright reddish/orange color that definitely catches your eye. The Blushing Orchid is a dense, mound-forming, boasting masses of large, bright pink flowers, up to 2 in. The compact Tropical Rose has variegated leaves in shades of deep green and yellow provide an illuminated backdrop for a profusion of showy pink flowers.

Solenostemon or Coleus (Fishnet Stockings, Pink and Broad Street) - A tall, upright coleus, 'Fishnet Stockings' has inky black lines throughout its vivid, lime green leaves, tracing the pattern of every vein. The leaves are neatly notched along the edges, which are also outlined in black. Coleus Main Street 'Broad Street' has wide, dark burgundy leaves edged in green that become nearly black in full sun. Compact and bushy. Coleus is very heat tolerant.

Verbena (Dark Red and Compact Bicolor Pink) – The Bicolor Pink have soft pink blossoms that darken in intensity toward the center of the bloom.

Lantana (Luscious Citrus Blend and Havana Harvest Moon) - Luscious Citrus Blend has vibrant red, orange, and yellow flowers on a mounding plant that grows quite tall. Havana Harvest Moon has more tropical colors of yellow and orange.

The Benton Partnership presents

4th annual **FARM TO FORK DINNER**

Saturday, September 18th - 5:30PM - 7:30PM
Kentucky Dam Village State Resort Park
Convention Center



Join us for a home-cooked meal, prepared by culinary students at Marshall County School with locally donated produce during an evening in which we celebrate our farming community!

For more information, please call 270-703-0304.

SMALL DIVERSIFIED FARM SERIES

HOMESTEADING FOR PROFIT

SCHEDULE OF EVENTS

JULY 22- SOILS
GRAND RIVERS COMMUNITY CENTER
6:00 PM

**AUGUST 26- PASTURE FOR ALL
SPECIES**
GRAND RIVERS COMMUNITY CENTER
6:00 PM

SEPTEMBER 23 - FIELD DAY
TRIMBLE FARMS, PRINCETON
6:00 PM

OCTOBER 28- MEAT PROCESSING
GRAND RIVERS COMMUNITY CENTER
6:00 PM

**NOVEMBER 16- SHEEP AND GOAT
PRODUCTION**
CHADWICK SHEEP COMPANY, MURRAY
6:00 PM

JANUARY 27- FSA, NRCS, K-CARD, OAP
GRAND RIVERS COMMUNITY CENTER
6:00 PM

CALL YOUR COUNTY EXTENSION OFFICE
TO REGISTER:

CALDWELL: 270.365.2787
CALLOWAY: 270.753.1452
CRITTENDON: 270.965.5236
LIVINGSTON: 270.928.2168
MARSHALL: 270.527.3285
MCCRACKEN: 270.554.9520
TRIGG: 270.522.3269



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LEXINGTON, KY 40546



Disabilities
accommodated
with prior notification.



Corn and Sweet Potato Confetti Salad

3 cups sweet potato, peeled and diced

2 green bell peppers, diced

1 tablespoon olive oil

3½ cups cut fresh corn kernels (7 ears) or frozen corn kernels

1 red bell pepper, diced

½ cup cider vinegar

1 small red onion, diced

½ teaspoon salt

Bring one cup of water to boil in a 2 quart saucepan; **add** diced sweet potatoes. **Cook** sweet potatoes 10 minutes or until slightly tender. **Drain** and set aside. **Remove** shuck and silk from fresh corn ears; **cut** kernels from cob. **Dice** peppers and red onion. **Heat** olive oil in a large skillet on medium setting; **add** sweet potatoes and **cook** until slightly browned. **Add** peppers; **cook** 5 minutes; **add** corn kernels,

cooking until tender. **Combine** red onion and cider vinegar in large bowl; **add** skillet vegetables; **toss** and salt to taste. **Serve** warm or refrigerate for chilled version.

Yield: 16, ½ cup servings

Nutritional Analysis: 70 calories, 1.5 g fat, 0 g saturated fat, 0 mg cholesterol, 95 mg sodium, 13 g carbohydrate, 2 g fiber, 4 g sugars, 2 g protein.

Kentucky Sweet Corn

SEASON: July through August.

NUTRITION FACTS: Corn is low in fat and is a good source of fiber and B vitamins. A half cup serving of corn contains 90 calories.

SELECTION: Look for ears with green shucks, moist stems and silk that is free of decay. Kernels should be small, tender, plump and milky when pierced. They should fill up all the spaces in the rows.

STORAGE: Keep unshucked, fresh corn in the refrigerator until ready to use. Wrap ears in damp paper towels and place in a plastic bag for 4 to 6 days.

PREPARATION:

To microwave: Place ears of corn, still in the husk, in a single layer, in the microwave. Cook on high for 2 minutes for one ear, adding 1 minute per each additional ear. Turn the ears after 1 minute. Let corn set for several minutes before removing the shucks and silks.

Source: www.fruitsandveggiesmatter.gov

To boil: Remove shucks and silks. Trim stem ends. Carefully place ears in a large pot of boiling water. Cook 2-4 minutes or until kernels are tender.

To grill: Turn back the shucks and remove silks. Sprinkle each ear with 2 tablespoons of water and nonfat seasoning such as salt, pepper or herbs. Replace shucks and tie them shut with a string that has been soaked in water. Place ears on a hot grill for 20 to 30 minutes, turning often.

KENTUCKY SWEET CORN

Kentucky Proud Project

County Extension Agents for Family and Consumer Sciences
University of Kentucky, Dietetics and Human Nutrition students

June 2014

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For more information go to:
<http://marshall.ca.uky.edu/AgNaturalResources>
or follow us on Facebook @marshallcountyanr

Nikki Rhein

Marshall County
Agriculture and Natural
Resources Agent