



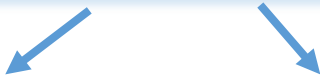
University of Kentucky  
College of Agriculture,  
Food and Environment  
*Cooperative Extension Service*

**Cooperative Extension Service**

Adair County  
409 Fairground Street  
P.O. Box 309  
Columbia KY 42728  
Phone: 270-384-2317  
Fax: 270-384-9167  
<http://adair.ca.uky.edu>

# AGRICULTURE & NATURAL RESOURCES

## AUGUST 2017



**2017 CAIP Cost-Share**  
(County Agricultural Investment Program)  
**Applications available:**  
**August 11 – August 31, 2017**  
Adair County Extension Office  
409 Fairground Street  
Columbia KY

The Kentucky Agricultural Development Board recently approved \$122,000 in Agricultural Development Funds for the 2017 Adair County CAIP program (**County Agricultural Investment Program**) to be administered by the Adair County Cattlemen's Association.

This program is a 50% cost-share program with a maximum funding of \$1,500 per farm operation. CAIP is designed to provide farmers with incentives to allow them to improve and diversify their current production practices.

Applications for the program will be available August 11 – August 31, 2017 at the County Extension Office.

For more information call 270-384-2317.

**2017 YAIP Cost-Share**  
(Youth Agricultural Incentives Program)  
**Applications available:**  
**August 11 – August 31, 2017**  
Adair County Extension Office  
409 Fairground Street  
Columbia KY

The Kentucky Agricultural Development Board recently approved \$20,000 in Agricultural Development Funds for the 2017 Adair County YAIP program (**Youth Agricultural Incentives Program**) to be administered by the Adair County Cattlemen's Association.

The Youth Agricultural Incentives Program was established to facilitate a growing need for a specialized program that would benefit youth actively engaged in agriculture. The focus of the program will be on youth developing agriculture projects, as well as strengthening partnerships with school ag programs, Cooperative Extension, and 4-H/FFA organizations.

Applications for the program will be available August 11 – August 31, 2017 at the County Extension Office.

**Cooperative Extension Service**  
Agriculture and Natural Resources  
Family and Consumer Sciences  
4-H Youth Development  
Community and Economic Development

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.  
LEXINGTON, KY 40546



Disabilities  
accommodated  
with prior notification.

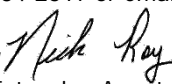
## PARTICIPATION IN CAIP

The (County Agriculture Investment Program) requires a minimum of one (1) educational component related to farm management, production, best management practices or marketing. Examples of types of sessions include workshops, seminars, field days, university sanctioned on-line courses, webinars, etc.

**NOTE: Educational Requirement for CAIP is extension sanctioned and a County Extension Agent must sign off on the education certification form.**

The Cooperative Extension Service continuously provides educational meetings that fulfill the CAIP educational requirement. Be sure to watch the local newspapers for meeting advertisements, listen the local radio stations for announcements, and pay close attention to the digital sign at the Extension Office for up-to-date announcements of all meetings. As always, you can call the County Extension Office at 270-384-2317 and inquire of educational meetings.

For information on any of the educational programs, call the Adair County Extension Office at 270-384-2317 or email [nick.roy@uky.edu](mailto:nick.roy@uky.edu)

Nick Roy   
County Extension Agent  
For Agriculture & Natural Resources

## Kentucky State Fair

August 17-27, 2017

Louisville KY

## Rinse & Return Program

August 30, 2017

9:00 am – 11:00 am

Adair County Extension Office  
409 Fairground Street in Columbia

The Rinse and Return Program is a voluntary, cooperative program provided by the Adair County Cooperative Extension Service and Kentucky Department of Agriculture.

This program allows for the proper recycling of pesticide containers. This reduces the amount of material entering the landfill or being disposed of by other means. Some of the end products include drainage pipe, highway sign posts, underground utility conduit, and wire/cable spool flanges.

To participate, containers should be triple rinsed, labels and lid removed, and brought to the Extension Office between the hours of 9:00 am and 11:00 am on August 30<sup>th</sup>. For more information, contact the Extension Office at 270-384-2317.

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. To initiate a complaint, contact Tim West in the Business Office at 859-257-3879. At the University level, Terry Allen and Patty Bender in the UK Office of Institutional Equity and Equal Opportunity (859-257-8927) may be contacted. Additionally, employee or clientele complaints involving any research or extension sponsored program or activity may be directed to the USDA, Director Office of Civil Rights, Room 326-W Whitten Bldg., 14th & Independence Ave. SW, Washington DC 20250-9410 (202-720-5964).

# What's Bugging You?

## KUDZU BUG FOUND IN THE LAND BETWEEN THE LAKES FOR FIRST TIME

By Raul T. Villanueva, Extension Entomologist and Susan Fox, County Extension Agent for Agriculture/Natural Resources

The kudzu bug (Figure 1) is an invasive pest of soybeans in many southern states, such as Georgia, North Carolina, South Carolina, Arkansas, and Alabama. Kudzu bug was introduced from Asia and was first reported in northeastern Georgia in 2009. It is the only species of the family Plataspidae in America. Initial yield losses on soybeans of up to 47% were recorded in Georgia in 2011. Since then, several pyrethroids insecticides (e.g. Brigade, Hero) have provided effective control. A thorough coverage and penetration of the canopy is critical for effective control.



(Photo: Raul T Villanueva, UK)  
Figure 1. Immature and adult Kudzu bug (Photo: Raul T Villanueva, UK)

### First Report in Lyon County

On July 1, 2017, Susan Fox, Lyon County Extension agent, found a kudzu bug (*Megacopta cribaria*) while walking on a bike trail in the Lyon County section of The Land Between The Lakes. Later, on July 5th, more specimens were found in a site near the city of Eddyville in the same county. These are the first reports of kudzu bug in the Land Between the Lakes (confirmed by a US Forest Service employee) and for Lyon County.

### Presence in Other Kentucky Counties

In Kentucky, Dr. Doug Johnson found Kudzu bugs in five counties (Christian, Laurel, Bell, Whitley, and Perry) in 2015. While in 2016, Villanueva (unpublished) found this pest in 8 counties (Ballard, Graves, Calloway, Monroe, Cumberland, Clinton, Wayne and McCreary). To this date there are 14 counties where kudzu bug was found in Kentucky (Figure 2), including Lyon County.

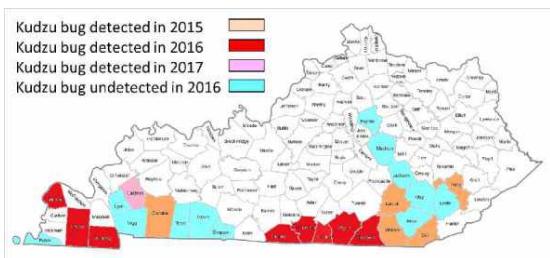


Figure 2. Distribution of Kudzu bug in Kentucky since 2015.

### The Trouble with Kudzu Bug

In addition to becoming a potential pest of soybeans and other legumes, kudzu bugs look for sheltered places to overwinter; thus they may become a nuisance for residences and other structures. Their behavior can be troublesome for people, cause allergies, and stain walls.

## Turf-cruising Green June Beetles and Bluewinged Wasps

Green June beetles (Figure 1) and bluewinged wasps (Figure 2) are beginning to cruise turf areas now. Green June beetle grubs feed on organic matter in the soil. These grubs do not feed on plant roots, but they can uproot seedlings as they visit the surface at night and churn the soil.

Green June beetle grubs are the targets of bluewinged wasps. The vividly colored wasps zoom over grassy areas in search of grubs. Female wasps enter the soil to lay eggs on the beetle larvae. While intimidating, the wasps are neither aggressive nor dangerous.



Figure 1. Green June beetle (Photo: Lee Townsend, UK)



Figure 2. Bluewinged wasp (Photo: Lee Townsend, UK)

# Spotted Wing Drosophila Update

Posted on July 18, 2017

By Ric Bessin, Extension Entomologist

First reported in Kentucky in 2012, spotted wing Drosophila (SWD) was widespread in the state by midsummer of 2013. This new invasive pest lays its eggs in the flesh of many types of soft skinned fruits, most commonly in small fruits and berries. Attack begins during the harvest period resulting in collapse of the fruit after harvest and small larvae in the fruit.

SWD is a serious threat to small fruit production, the adults lay eggs under the skin of otherwise sound fruit. This can result in small larvae in the fruit at harvest or just after harvest. In addition to damaging a large percentage of a crop, this pest also has the potential to upset customers and ruin markets.

Spotted wing drosophila (SWD) is active across the state and has been detected at all of our cooperating field sites. Moderate to high levels of SWD are being trapped around the state as can be seen from the map (Figure 1). This indicates that crops being harvested are at moderate to high risk of SWD fruit infestations. The crops most at risk include blackberries, blueberries, raspberries, and grapes.

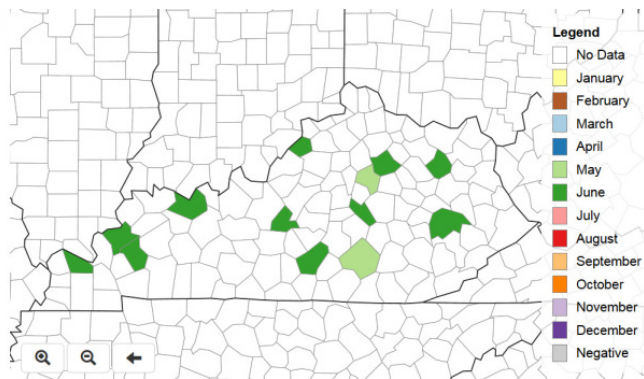


Figure 1. Spotted wing drosophila activity in Kentucky.

## Management with Insecticides

Producers who are spraying insecticides for SWD on a 7-day schedule and obtaining good coverage are having good results. This program can keep SWD at very low levels or even eliminate SWD for trap catches. But keep in mind that we need to rotate modes of action with our SWD sprays. Ideally we should be using three modes of action in a rotation so we are not using the same spray with consecutive applications. Rotating modes of action helps to prevent insecticide resistance with all of the sprays we use.

## Other Management Practices

Other practices to help reduce spotted wing drosophila include clean picking, more frequent picking, and immediate cooling of berries after harvest.

- Clean picking involves removing all ripe berries from plantings, including those that are damaged and unmarketable. This reduces the number of successful breeding sites for spotted wing drosophila.
- Frequent picking reduces the length of the exposure period to SWD egg laying.
- Rapid cool down after harvest suspends development and cooling near freezing for several days can kill a high percentage of spotted wing drosophila. Home gardeners can freeze their berries to kill any SWD.

## New Option for Pinkey Vaccination

Nick Roy, Adair County ANR



A relatively new product is on the market now providing cattlemen another option for pinkey prevention. Solid Bac IR/PR vaccine is

labeled to aid in the prevention and control of Pinkey caused by *Moraxella bovis*. The vaccination is administered using an implant system of two antigen pellets. One pellet is released immediately once administered while the second pellet provides a slow release booster.

Solid Bac can be administered in the base of the ear or in the neck and is approved for cattle 3 months of or older. A 21 day slaughter withdrawal applies. The cost of the vaccination is approximately \$3.00 per head and requires a gun for administration. The gun is sold separately and retails for around \$65.00.

Local field trials of the products are planned for next year. If you have had pinkey problems and would like to participate, contact the Adair County Cooperative Extension Service at (270) 384-2317.

*Mention of a brand name does not imply endorsement. Article for educational purposes only.*

# Cucurbit Powdery Mildew Taking Off in Kentucky

Posted on July 25, 2017

Reports of powdery mildew have increased rapidly in cucurbit crops in the past 2 weeks. Powdery mildew is a common disease of all cucurbits that usually appears first near the middle of the growing season. The disease occurs in greenhouses and high tunnels as well as in the field. Prevention, early identification, and management will help reduce plant and yield losses.

Here are the symptoms to look for, preventative tactics, and brief suggestions on how to treat crops once disease is confirmed.

## Cause, Disease Development & Importance

Cucurbit powdery mildew is caused by the fungal pathogen, *Podosphaera xanthii*. This pathogen overwinters in crop residues and perennial weeds. Powdery mildew is favored by high humidity; however, unlike many fungi that require leaf wetness for infection, droplets on plant surfaces can inhibit powdery mildew pathogens. For this reason, powdery mildew may be more common on the underside of leaves under rainy conditions. In drier weather, it occurs on both the upper and lower leaf surfaces. Unlike downy mildew, powdery mildew easily spreads over leaf veins.

Once established, powdery mildew can spread rapidly in dense plantings, and in severe cases, results in defoliation. Fruit do not become infected with the pathogen, yet this disease will limit yields due to reduced photosynthesis in the leaves and overall poor plant health. In addition to foliar tissue, powdery mildew may affect petioles and peduncles; perhaps most significantly, powdery mildew can destroy pumpkin "handles" if left unmanaged.



Figure 1: Symptoms of cucurbit powdery mildew begin as white, powdery spots on the upper or lower leaf surface. (Photo: Emily Pfeufer, UK)

## Symptoms

Cucurbit powdery mildew is primarily a foliar disease. The most noticeable signs are white, powdery spots that appear on upper or lower leaf surfaces (Figure 1). As the disease progresses, the entire leaf surface may become covered, and leaves can become yellow. Over time, leaves die and defoliation occurs. Cucurbits with a longer growing season, such as winter squash and pumpkins, tend to suffer more damage from powdery mildew, as fruit yield and quality may be reduced.

## Management

### *Cultural Practices*

- Utilize disease resistant cultivars or those with a more open leaf canopy.
- Plant in sunny areas with good airflow.
- Use recommended plant spacing to facilitate air movement and leaf drying.
- Remove and destroy heavily infected plants.

## Chemical Approaches

Early in the cucurbit growing season, commercial growers should follow a preventative fungicide program utilizing mancozeb, chlorothalonil, and/or copper to suppress early infections by the powdery mildew pathogen (see pg. 115 in ID-36). In week 4 or 5, or at first symptom development (whichever happens first), a systemic fungicide should be used to continue to suppress disease. Systemic fungicides recommended for heavy powdery mildew pressure include Vivando, Torino, Quintec, Pristine, Rally, and Aprovia Top. Under lower disease pressure, several other fungicides, such as those in FRAC groups 1, 3, 7, and 11, will also be suppressive.

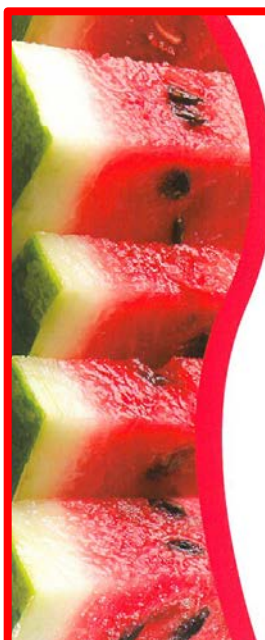
As always, all label recommendations must be followed when applying chemicals to crops. In particular, pay close attention to pre-harvest intervals.

The Adair County Farmer's Market is ongoing.

Tuesday & Fridays

6:00 am – 10:00 am

Adair County Extension Office Parking Lot



## Watermelon Salsa

**2 cups** chopped seedless watermelon  
**1 cup** fresh blueberries  
**1 cup** chopped cucumber  
**½ cup** chopped onion

**½ cup** chopped red pepper  
**½ teaspoon** garlic salt  
**1 teaspoon** lime juice  
**2 tablespoons** balsamic vinegar

**Combine** watermelon, blueberries, cucumber, onion and pepper in large serving bowl. **Sprinkle** with garlic salt. **Toss** to coat. **Stir** in lime juice and balsamic vinegar. **Cover** and **chill** one hour.

**Yield:** 10, ½ cup servings  
**Nutritional Analysis:** 25 calories, 0 g fat, 0 mg cholesterol, 50 mg sodium, 7 g carbohydrate, 1 g fiber, 5 g sugar, 1 g protein.



Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.



## Farmer's Market Skillet Bake

**½** small onion, finely chopped  
**2** cloves garlic, minced  
**4-5** small red potatoes, sliced  
**1** **tablespoon** olive oil

**2 cups** shredded mozzarella cheese, divided  
**1** medium summer squash, sliced  
**1** medium zucchini, sliced

**4** medium sized tomatoes, sliced  
**1** **teaspoon** salt  
**1** **teaspoon** pepper  
**5** fresh basil leaves, finely chopped, divided

**Preheat** oven to 375 degrees F. **Prepare** onion, garlic and sliced potatoes (about ¼ inch thick). **Heat** olive oil over medium heat in a 10 or 12-inch oven safe skillet. **Add** onion, garlic, and potatoes to pan and **stir** to coat with oil. **Cook** over medium heat, **stirring** occasionally until golden brown and tender. **Add** 1 cup mozzarella cheese. In a bowl, **toss** together the squash, zucchini and tomatoes with salt, pepper, and half of the finely chopped basil. **Layer** squash

and tomato slices over the potato and cheese layer. **Top** with remaining mozzarella cheese. **Bake** 35 minutes or until vegetables are tender and cheese is melted. **Remove** skillet from oven and **top** with remaining basil.

**Yield:** 8, 1 cup servings

**Nutritional Analysis:** 200 calories, 8 g fat, 4 g saturated fat, 20 mg cholesterol, 490 mg sodium, 24 g carbohydrate, 3 g fiber, 5 g sugars, 10 g protein.

