



Martin-Gatton
College of Agriculture,
Food and Environment

AUGUST 2024

Agriculture & Natural Resources Newsletter

Magoffin County
15 Rockhouse Fork Rd
Salyersville, KY 41465
(606) 349-1236
magoffin.ca.uky.edu



MAGOFFIN COUNTY

FARMERS MARKET

OPEN FOR THE SEASON

Tuesdays: 3-6pm

Fridays: 3-6pm



241 West Maple Street
Salyersville, KY 41465

First Friday Fun:
Free activities for kids every first Friday of the month!



Kristen Stumbo
Kristen Stumbo

County Extension Agent for
Agriculture & Natural Resources

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Cooperative Extension Service

Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

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Disabilities accommodated with prior notification.

Installing a Butterfly Garden Can Play a Critical Role in Plant Pollination

Source: Faye Kuosman, UK Food Connection coordinator

Butterflies aren't the only ones that can benefit from butterfly gardens. Honeybees, which are native to Europe and introduced to the United States, are also important pollinators for home gardens. Numerous other pollinator species including native bees, butterflies and moths, beetles, birds and bats benefit our gardens. Sadly, many of the pollinators have suffered from habitat loss, chemical misuse, diseases and parasites.

Butterfly gardeners play a critical role in nurturing and conserving both native and introduced pollinators. Butterfly gardens and landscapes provide pollinators with food, water, shelter and habitat to complete their life cycles. Urban areas typically feature large areas of pavement and buildings and offer little in the way of food and shelter for pollinators. Garden plantings can help bridge that gap.

Just like with any new flower bed, you want to pick a site for your butterfly garden with good drainage, full sun, and an area with good weed control. If you are starting a new butterfly garden, get a soil test, eliminate the weeds and add organic matter.

Butterflies, honeybees and other pollinators need protein from flower pollen and carbohydrates from flower nectar. Plan to provide a variety of different types of flowers and aim to have three different flower species in bloom throughout the growing season. Showy, colorful flowers and massed groups of flowers, particularly in small gardens, provide efficient feeding stations for the pollinators. Flowering trees and shrubs also provide excellent food sources. Native plants share a long history with their pollinators, including a wide variety of natives will make your garden a favorite destination for pollinators.

You want to have a variety of plants, preferably native and non-native ones that will bloom throughout the growing season. Some of these are purple cone flower, black-eyed susan, asters, golden rod, yarrow, tall blazing star, milkweed, coreopsis and many more. The Kentucky Native Plant Society has an updated listing of nurseries in Kentucky that sell native plants.

Be sure to have puddling spots for butterflies to get a drink of water. Pollinators also need shelter from the wind, scorching sun, and heavy rain. Fences can serve as windbreaks, which may make the garden more attractive to pollinators.



For information on starting a butterfly garden, contact the Magoffin County office of the University of Kentucky Cooperative Extension Service.

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The University of Kentucky Martin-Gatton College of Agriculture, Food and Environment news and communications team provides monthly Extension Exclusives in the categories of Horticulture, Agriculture and Natural Resources, 4-H and Family & Consumer Sciences. To see more exclusives, visit <https://exclusives.ca.uky.edu>.

Optimizing Fertilizer Use for Kentucky Crops

Source: John Grove, Department of Plant and Soil Sciences professor

Proper fertilizer usage is essential for achieving high crop yields and farm profitability while maintaining soil health.

The Importance of Soil Testing

Soil testing is the foundation of effective nutrient management. The process involves collecting soil cores from 15-20 locations within a field/field area, to a specific depth. This method ensures that the samples are representative of the entire area, providing more accurate data on nutrient levels and soil pH.

Lime Application for Soil Health

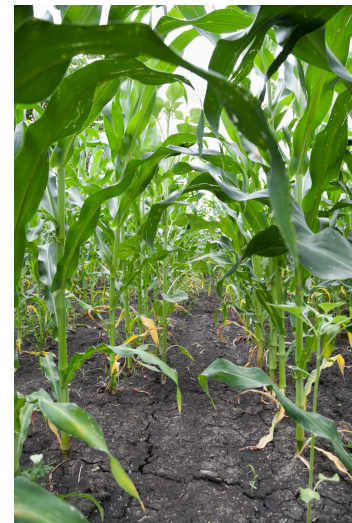
Producers should apply lime based on soil test results to ensure that the soil pH is within the optimal range for their crops. By adjusting the soil pH, lime application can enhance nutrient uptake and improve overall soil health.

Fertilizer Recommendations for Various Crops

Different crops have varying nutrient requirements, and it is important to tailor fertilizer applications accordingly. Here are some specific recommendations for major crops grown in Kentucky:

Corn

Corn requires significant amounts of nitrogen, phosphorus and potassium for optimal growth. Soil testing can determine the exact nutrient needs, but general guidelines suggest applying nitrogen in split applications: a portion at planting and the remainder during the growing season. Phosphorus and potassium should be applied before/at planting, based on soil test results, to ensure adequate nutrition throughout the growing period.



Soybeans

Soybean, being a legume, can fix atmospheric nitrogen through a symbiotic relationship with a soil bacterial species. However, the crop still requires adequate phosphorus and potassium. Soil tests help determine appropriate application rates for these nutrients. Phosphorus and potassium for soybean should also be applied before/at planting.

Benefits of Proper Fertilizer Usage

Following these fertilizer recommendations offers several benefits to farmers:

1. **Improved Crop Yields:** By providing crops with the right nutrients at the right times, farmers can achieve higher yields and a better-quality product.
2. **Enhanced Soil Health:** Proper nutrient management maintains soil fertility, ensuring long-term productivity.
3. **Cost Efficiency:** Applying fertilizers based on soil test results prevents both under and over application, optimizing yields and input costs while minimizing environmental impacts.
4. **Sustainable Practices:** Efficient fertilizer use supports sustainable farming by optimizing resource use and preserving soil quality for future generations.

Optimizing Fertilizer Use for Kentucky Crops

Effective fertilizer use is crucial for successful crop production. By conducting regular soil tests and following crop-specific nutrient recommendations, growers can optimize their fertilizer applications. This approach not only enhances crop yields and soil health but also promotes sustainable farming practices. With careful management, producers can achieve productive and sustainable agricultural systems.

More info can be found at the University of Kentucky Martin-Gatton College of Agriculture, Food and Environment recommendation publication <https://www2.ca.uky.edu/agcomm/pubs/AGR/AGR1/AGR1.pdf>.

For more information on fertilizing crops and soil health, contact the Magoffin County office of the University of Kentucky Cooperative Extension Service.

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Magoffin County Honeybee Association Meeting

Monday, August 26, 2024
6:30 PM

Call the Extension Office at
349-3216 to be added to the mailing list.



COMMON TOMATO DISEASES in Kentucky Gardens

Blossom End Rot



Blossom End Rot

Photograph courtesy of
 University of Kentucky IPM Team

Blossom End Rot (*environmental*) - It is a physiological disorder (non-parasitic disease). Black or brown leathery decay is found on the blossom end of fruit and is practically worthless. Blossom end rot is a deficiency of calcium usually brought on by moisture stress even though there is enough calcium in the soil. Mulch plants to conserve moisture; avoid deep cultivation and pruning of the roots. Irrigate plants to maintain uniform soil moisture levels as needed. Lime soil as needed according to soil test results.

Early Blight

Alternaria solani



Early blight on tomato foliage

Photograph courtesy of
 University of Kentucky
 IPM Team



Severe early blight on tomato fruit

Photograph courtesy of
 University of Kentucky
 IPM Team



Severe early blight on tomato

plant Photograph courtesy of
 University of Kentucky IPM
 Team

Early Blight (*fungus*) - Leaves have dark brown spots with concentric rings or target board pattern in the spots; disease begins on lower foliage and works up with severely affected leaves shriveling and dying; similar spots can occur on stems and fruits; can be confused with other leaf spots, but this is most common. Maintain proper fertility. Spray foliage with fungicide at first sign of disease and as needed (weekly during hot, humid weather) thereafter; use chlorothalonil, mancozeb or fixed copper. Good coverage is needed. Make second planting in midsummer for fall crop. A few early blight tolerant varieties are now available.

Bacterial Spot

*Xanthomonas campestris*pv*vesicatoria*



Bacterial spot on foliage

Photograph courtesy of
 University of Kentucky
 IPM Team



Bacterial Spot on fruit

Photograph courtesy of Kenneth
 Seebold, University of Kentucky



Bacterial spot on foliage

Photograph courtesy of
 University of Kentucky
 IPM Team

Bacterial Spot (*bacteria*) - Begins as small, dark, water-soaked areas which become dark brown and slightly raised on the underside of the leaf. Spots often enlarge, and may be either dark colored or have tan colored centers with dark margins. The size and shape of leaf spots may vary under different conditions. Leaves with too many spots promptly turn yellow and drop, defoliating the plants. Fruit blemishes begin as small, water-soaked spots which enlarge, becoming blister-like, rough, and warty. The spots are brown and seldom exceed 1/4 inch in diameter. Often the disease extends into the seed cavity. Use certified, disease-free transplants. Rotate with unrelated crops from one year to another. Only handle plants when they are dry to avoid spreading the bacteria. Spray foliage with fixed copper at first sign of disease.

Septoria Leaf Spot

Septoria lycopersici

Septoria Leaf Spot (*fungus*) - Small, brown, circular spots form on leaves, usually first observed in lower foliage. Similar to early blight, but often develops earlier in the season. Circular lesions with darkened borders and tan-brown centers are characteristic of this disease. Spots can be numerous under favorable conditions, resulting in severe blighting. See “Early Blight” for management considerations.



Septoria leaf spot on tomato
Photograph courtesy of University of Kentucky
IPM Team



Late blight on tomato
Photograph courtesy of
John Hartman
University of Kentucky

Late Blight

Phytophthora infestans

Late Blight (*fungus*) - Nationally, the potential for late blight has increased greatly, but this disease is relatively rare in Kentucky. Dead areas on leaves, brown or dark purple color, variable in size with white or gray moldy growth on leaf undersides during cool, moist weather; fruits may develop dark brown or greenish blemishes, usually on stem and during cool, moist weather. See “Tomato Early Blight” for fungicides. Use disease-free transplants.

Powdery Mildew

Leveillula taurica

Powdery Mildew (*fungus*) - Powdery mildew is found mainly on tomatoes grown in greenhouses and high tunnels, but can be found on field-grown tomatoes during dry summers. The disease is characterized by a white, talc-like growth on upper and lower leaf surfaces. Over time, necrotic areas will form, resulting in blighting of affected leaves. Stems may be infected in severe outbreaks. Management includes proper plant spacing, adequate ventilation in greenhouses, and fungicide applications.



Powdery mildew on tomato foliage
Photograph courtesy of University of Kentucky
IPM Team

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University of Kentucky, Lexington, KY 40506-0032 or

US Department of Agriculture, Office of the Assistant Secretary for Civil Rights,
1400 Independence Avenue, SW, Washington, D.C. 20250-9410.

Visit the [CES Program and Staff Development](#) website for additional guidance.

Questions may be directed to Stacy Miller at Stacy.miller@uky.edu or (859) 257-1727.



Easy Peach Cobbler

½ cup whole wheat flour	1½ cups sugar (divided)	1 tablespoon lemon juice
½ cup all purpose flour	1 cup skim milk	1 teaspoon ground nutmeg or cinnamon
1½ teaspoons baking powder	½ cup unsalted butter	
1 pinch salt	4 cups fresh peeled peaches	

- 1. Preheat** the oven to 375° F. **Combine** the flour, baking powder, salt and $\frac{3}{4}$ cup sugar in a large mixing bowl. **Add** the milk and mix only until the dry ingredients are wet.
- 2. Melt** the butter and **pour** into a 13 x 9 inch baking dish or pan. **Add** the flour mixture on top of the butter. Do not stir.
- 3. In** a saucepan, **heat** the peaches, $\frac{3}{4}$ cup sugar and lemon juice until the sugar is dissolved and the peaches are coated. **Pour** evenly over the flour mixture. Do not stir. **Sprinkle** with nutmeg or cinnamon.
- 4. Bake** for 40 minutes or until crust is golden brown. **Remove** from oven and serve warm.

Yield: 12 servings.

Nutritional Analysis: : 190 calories, 8g fat, 5g saturated fat, 80 mg sodium, 20mg cholesterol, 32g carbohydrate, 1g fiber, 24g sugar, 2g protein.

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

