

Pike County Agriculture and Natural Resources



As we transition into the cooler months, it's an important time for preparation and planning to ensure a successful fall and winter season. This edition is packed with timely advice and tips to help you get the most out of your fall gardening, livestock management, and equine care.

In this issue, you'll find valuable articles on fall gardening cleanup, which is crucial for controlling spring diseases, tips on removing plant debris, managing soil, cover crops, and preparing the garden for winter. This is also a great time of year to take and submit soil test samples.

For our livestock owners, we've included September and October monthly grazing tips to ensure your pastures and animals are well-prepared for the colder months ahead and emphasize the importance of proper hoof care as the weather turns wet and muddy.

We are also excited to announce several upcoming events, including a collaborative Ag Day event with the Conservation District for National Farmers Day on October 12th at the Pikeville Farmers Market.

We hope this newsletter provides you with the knowledge and resources you need for a productive fall season. Thank you for your continued dedication to agriculture and natural resources in our community!



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**Cooperative
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Agriculture and Natural Resources
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Fall Gardening Cleanup Controls Spring Diseases

By John Hartman

You can reduce the risk of some common problems next year by getting rid of leftover plant debris in vegetable, flower and fruit gardening areas this fall.

Several disease-causing fungi and bacteria spend the winter on plant debris, and can cause diseases the following growing season. Proper garden sanitation can combat such diseases as early blight, mildews, gray mold fungus and various root rot and wilt problems. To combat diseases, remove all plants,



except winter vegetables or cover crops, from the garden. It is especially important to completely clean out and destroy all diseased plants in vegetable gardens and fruit plantings. Carefully dig up and remove decomposing roots to keep them from releasing disease-causing microbes into the soil. Also, remove spent blooms and foliage from flower gardens and mummied fruits on are around trees and grapevines.

Garden debris is a wonderful addition to a compost pile. A good pile will heat up and completely decompose the remains in a few years. This process will destroy most disease-causing organisms.

If heat development is not possible in your composting process, dispose of plants infected with root knot nematode or Fusarium and Verticillium wilt diseases. Be sure to put these infected plants where they cannot be recycled into the garden.

Gardeners who decide not to remove old plants should till gardening areas to break dead materials into smaller pieces and then work them into the soil. Plant debris decomposes more rapidly when buried than when left on the soil surface. This reduces populations of disease-causing organisms that could cause problems next year.

Planting a cover crop to maintain and rejuvenate the soil is another way to get your vegetable garden off to a good start next year.

A cover crop will help prevent erosion of enriched topsoil, keep rains from leaching minerals from the soil, prevent compaction and stop growth of weeds that can serve as overwintering sites for insects and diseases. A cover crop also will add organic matter, both from its roots and when tilled into the garden soil.

Successfully growing a cover crop requires proper crop selection, correct timing and good management techniques. You will reap the benefits of cover crops in future vegetable harvests.

For more information, consult "Home Vegetable Gardening in Kentucky" (ID-128) and "Home Composting: A Guide to Managing Organic Wastes" (HO-75). These publications and other gardening materials are available from the (County Name) Cooperative Extension Service and by selecting "Publications" from "Focus Sites" on the College of Agriculture home page at <http://www.ca.uky.edu>.

Cover crops are good for vegetable gardens too

By Jessica Sayre, UK extension horticulture agent, Published on Sep. 2, 2021

Traditional farmers routinely plant a cover crop at the end of a growing season. This is not something usually done by vegetable growers but is highly recommended.

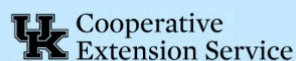
A cover crop is intentionally seeding a crop if your garden is going to be sitting idle for a period of time, instead of letting the land sit fallow. It will put nutrients back into the soil to improve fertility and erosion control.

The type of cover crop you choose to plant depends on your equipment and level of interest. There are two types of cover crops, legumes and non-legumes. Legumes will add nitrogen to the soil and non-legumes, a type of grass, establishes better than legumes. In a vegetable garden a mixture of the two is common, but you can choose one or the other.

Cover crops are typically planted in the fall after all crops have been harvested. Examples of cover crops include:

- Cereal rye – non-legume – planted September to November
- Wheat – non-legume – planted September to November
- Hairy vetch – legume – adds nitrogen – planted August to September
- Crimson clover – legume – adds nitrogen – planted August to September

Grasses are easier to remove in the spring, before planting, because they have a shallow root system. Crimson clover is recommended as a legume with its shallow root system and is a good pollinator.



SOIL TESTING

Did you know soil testing is available to every Kentucky citizen through UK Cooperative Extension?

What is Soil Testing?

- Soil testing is a chemical analysis that provides valuable insights into what your soil needs to be more productive.

How does it work?

- Soil samples are collected at all of our 120 cooperative extension offices and sent to a laboratory for testing.

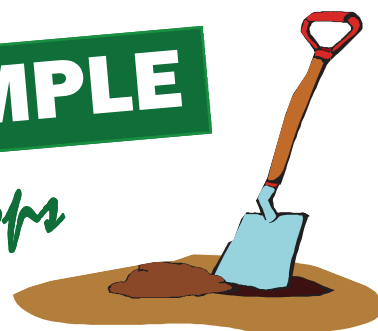
Why Soil Test?

- Identify previous cropping history
- Show losses of surface soil through erosion
- Provide a guideline for lime and fertilizer needs of the soil
- Analyze pH, phosphorus, potassium, calcium, magnesium, zinc, and CEC of soil.

Learn more by contacting your local county cooperative extension office or check out UK Extension publications AGR-1, AGR-16, and AGR-57.

TAKING A SOIL SAMPLE

For Horticulture Crops



When you take soil test samples, keep in mind that a few ounces of soil are being tested to determine lime and fertilizer needs for what may be several thousand pounds of soil in the lawn or garden area. It is absolutely necessary to take care to assure that the soil sample you send to the laboratory accurately represents the area sampled.

Soil samples can be collected through much of the year, although fall (September to December) or spring (February to April) are the best times. Fall sampling will often result in a faster return of results and recommendations.

TOOLS YOU'LL NEED

A soil probe, auger, garden trowel, or a spade and knife are all the tools you need to take the individual cores that will make up the "field" sample. You will also need a clean, dry bucket (preferably plastic) to collect and mix the sample cores. Soil sample boxes or bags and information forms for submitting samples are available at your local County Extension office.



The most representative sample can be obtained from a large area by sampling in smaller units on the basis of soil type, cropping history, erosion, or past management practices. More accurate results are obtained when problem areas are sampled separately, especially when "trouble-shooting" during the growing season. In such instances, take a sample both from the poor growing area and adjacent areas of good growth. Designate each sample area with a letter or numbers on an area map for record-keeping purposes.

Collect at least 5 to 10 soil cores for each lawn or garden area. Take the soil cores randomly throughout the area to be sampled and place in the bucket. From that mixture, you will **BRING IN 2 CUPS (1 PINT) OF SOIL FROM EACH SAMPLE AREA.**

RECOMMENDATIONS AND SAMPLE DEPTHS FOR VARIOUS HORTICULTURAL CROP AREAS

All soil core samples should start at the soil surface and go down to the recommended depth given for each specific crop listed below:

A. LAWNS AND TURFGRASSES

- For established lawns, sample the top 2 inches of soil only. Do not include grass, roots or thatch in the sample.
- For areas to be tilled up for a new lawn, sample the top 4 inches of soil.
- Sample problem areas and areas with shrubs or flower beds separate from other turf or lawn areas.
- Sample front and back yards separately.
- For lawn samples, do not sample under the drip line of trees.
- Do not take samples close to driveways or streets, unless this is treated as a "problem area", which would require a separate sample.
- Fertilize lawns only at the proper time of year (primarily in the Fall).

→ See AGR-53, "**Lawn Fertilization in KY**"

B. HOME FLOWER GARDENS

- **Annual Flowers**—Sample the top 6 to 8 inches of soil.
- **Perennial Flowers**—Sample the top 6 to 12 inches of soil.
- Don't take samples too close to foundations, sidewalks, driveways or limestone graveled areas, unless these are treated as separate "problem areas".
- Granular dry fertilizer can be added to the flower garden when it is tilled in the spring.



C. COMMERCIAL PRODUCTION OF FIELD-GROWN FLOWERS

- Sample the top 8 to 12 inches of soil.
- Take separate samples for each block or different flower variety.
- For large fields, up to 30 soil core samples may be needed per sample.

D. HOME LANDSCAPE TREES & SHRUBS, AND FIELD-GROWN NURSERY STOCK

- Sample the top 6 to 12 inches of soil.
- Take samples from under the drip line of established trees (under tips of the longest branches all the way around the tree), or just outside the root ball or planting area for newly-planted trees.
- Fertilize in late fall, early winter or early spring.

→ See ID-72, "**Principles of Home Landscape Fertilization**"

E. HOME VEGETABLE GARDENS

- Sample the top 6 to 12 inches of soil, preferably in October or November.
- Do not include compost or manure in the sample.
- Fertilize in early spring before planting, and side-dress with more fertilizer later in the season as needed.

→ See HO-63, "**Home Vegetable Gardening in KY**"

F. COMMERCIAL VEGETABLE FIELDS

- Sample the top 8 to 12 inches of soil.

→ See ID-36, "**Commercial Vegetable Crop Recommendations**" for specific fertilizer and nutrient needs for each crop.

G. TREE FRUITS

- Sample the top 12 to 18 inches of soil.
- Take samples from drip line area under branch tips (or closer to trunk for newly planted trees).
- Fertilize in February, according to soil test results.

→ See HO-64, "**Growing Fruit at Home in Kentucky**", or ID-92, "**Commercial Tree Fruit Spray Guide**" for nitrogen recommendations.

H. BUSH AND VINE FRUITS

- Sample the top 8 to 12 inches of soil.
- Fertilize in February.

→ See HO-64, "**Growing Fruit at Home in KY**", or ID-94, "**Kentucky Commercial Small Fruit & Grape Spray Guide**".

SAMPLE PREPARATION

After all cores from one crop area are collected and placed in the bucket, crush the materials and mix the sample thoroughly. ALLOW THE SAMPLE TO AIR DRY in

an open space free from contamination. Spread the soil out to dry on newspapers. Do NOT dry the sample in an oven or at an abnormally high temperature.

WHEN DRY, CRUMBLE THE SOIL AND FILL A 2 CUP

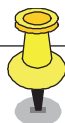
SAMPLE container with soil. Separate information is needed for:

- Agricultural Soils
- Home Gardens
- Lawns and Turfgrasses
- Commercial Horticulture Crops



GENERAL SUGGESTIONS RELATING TO SOIL SAMPLING, FERTILIZER AND LIME NEEDS:

- 1) Never apply lime to horticultural crops unless a soil test indicates the need. Many soils are ruined by annual applications of lime. Most horticultural crops prefer acid soils, around pH 6.3 to 6.4, with some needing pH 4.5 to 5.5. It is easier to raise soil pH above 7.0 (with lime) than it is to bring it back down (with sulfur).
- 2) When you get back your soil test results, realize that the University of Kentucky did NOT do a test to determine the level of nitrogen in your soil. Nitrogen is leached out and used up regularly by all crops, so a basic, generic nitrogen recommendation is given (the same for everyone...for that specific crop), based simply on the known nitrogen requirements of the crop indicated. Therefore, if you have just applied nitrogen fertilizer before you sent in your soil sample, do not apply more just because the soil test says you need nitrogen. Remember, they did not actually test the level of nitrogen in your soil.
- 3) All Kentucky soils benefit from added organic matter such as peat moss, compost or well-aged manure. These improve the drainage and water and nutrient-holding capacity of soils.



Information compiled by

Mike Klahr, Boone County Extension Agent
for Horticulture and based on
AGR-16, "**Taking Soil Test Samples**".

Soil testing depths for horticultural crops are based on recommendations from the University of Kentucky specialists:

A.J. Powell ♦ Sharon Bale ♦ Bob Anderson ♦ Bill Fountain
Mary Witt ♦ John Strang ♦ Jerry Brown

September Monthly Tips

- If not already done, soil sample and apply lime and fertilizer as needed.
- Plant perennial grasses and legumes. Consider using a novel endophyte tall fescue.
- Harvest hay as needed. Do NOT harvest alfalfa after mid-September.
- Closely monitor livestock and do NOT overgraze. Pasture plants accumulate energy reserves in the fall that help them overwinter and regrow in the spring.
- Feed hay to allow pastures to stockpile for winter grazing.
- Rest native warm-season grass fields until after frost for better winter survival.

September is best time to seed many of our perennial forage crops especially cool season grasses. In addition, annual forages like annual ryegrass, wheat and cereal rye can also be established and will provide additional high quality pasture in late winter and early spring. Always calibrate the drill for best results.

October Monthly Tips

- Feed hay to allow cool-season pastures to accumulate forage growth for winter grazing.
- Do NOT harvest or graze alfalfa fields.
- Inventory and test each hay lot for nutritive value and consult a nutritionist to design a supplementation program as needed.
- Remove livestock from pastures that contain sorghum species (sorghum-sudangrass, sudangrass, and johnsongrass) when frost is expected to prevent cyanide poisoning.
- Begin strip grazing early planted small grain and brassicas (turnips and rape) mixes by the end of this month.

October is a good time to pull soil samples for lime and fertilizer needs in pasture and hay fields. Developing a cost-effective fertilizer program starts with a current soil test.

Horse Hoof Care 101

By Bob Coleman, UK Equine Extension Specialist

Hoof care is important to keeping your horses comfortable and healthy. Proper hoof care can help ensure that you enjoy your horse for a long time.

Farriers and veterinarians are the experts when it comes to horse hoof care. It is important for you to have a good working relationship with both. They can help you maintain a regular maintenance schedule and quickly address any hoof-related problems.



As a responsible horse owner, you should clean your horse's feet daily. This practice gets them comfortable with having their feet handled and helps ensure they will stand for the farrier. This will make the experience safer for both the horse and the farrier. Have your horse's hooves trim or shod as needed to protect your horse from developing hoof infections and lameness.

Horses' hooves grow at different rates, depending on the horse and its intended purpose. For example, hooves of performance horses may grow quicker than those used for pleasure riding. Generally, hooves grow quicker during the summertime compared to the winter. In the summer, trim or shod horses every six to eight weeks. In the winter, you might be able to stretch maintenance to every six to 12 weeks, but again, it depends on the horse.

Horses should have balanced hooves. They put less strain on the horse's bones, tendons and ligaments and allow for easier and more fluid movements. When hooves are balanced, they have the following characteristics:

- A straight line from the pastern through the front of the hoof wall.
- Toes that are not too long, square trimmed or rounded and rolled.
- The shoe reaches to the back of the hoof wall and supports the entire leg.

If you wait too long between trimmings, a horse's hooves can crack. This can lead to serious health problems including lameness. Their hooves can also become dry and crack during dry weather, wintertime or frequent changes between dry and wet conditions. If your horse's hooves become dry, brittle or start developing cracks, apply a hoof moisturizer to the hoof wall and sole.

Wintertime calls for specific hoof care. Horses should be left barefoot if they are not normally shod. Bare feet can help them grip surfaces and prevent slipping. However, you may need keep shoes on your horse during the winter if it is prone to bruising.

Keep areas where horses frequent clean and dry. Wet, dirty conditions can cause thrush, which is a smelly, black fluid that leaks from the hooves. It can invade the horse's tissues and cause lameness.

Proper nutrition goes a long way to reducing hoof cracks and ensuring optimum horse health. Generally, horses need high quality hay, the appropriate amount of vitamin and mineral supplements and fresh, clean water. You can also purchase a supplement containing biotin, zinc or methionine to improve hoof health.

More information on horse health is available at the Pike County office of the University of Kentucky Cooperative Extension Service.

FALL Festival

AG DAY EVENT

OCTOBER 12TH 9AM TO 5PM

FARMERS MARKET PAVILION

MUSIC-FOOD-FUN

BAKE OFF

CHILI COOK OFF

CORN EATING CONTEST

GAMES FOR KIDS



HOMEMAKING In the MOUNTAINS

October 19th
10:00 A.M-3:00 P.M

SPONSORED BY:



Call (606) 432-2534 for more info!
Rhododendron Conference Center Breaks
Interstate Park - Breaks, VA

Upcoming Events

September	October	November
3 rd - Beekeepers Meeting (Rescheduled due to holiday) 6:00pm at Extension office	1 st - Pumpkin Day Pikeville Farmers Market 4:30pm	4 th - Beekeepers Meeting 6:00pm at Extension office
12 th - Master Gardener Meeting Growing Garlic Program 5:30 at Extension Office	7 th - Beekeepers Meeting 6:00pm at Extension office	14 th - Master Gardener Meeting 5:30 at Extension Office
14 th - Master Gardener Garden Crew Day Community Garden volunteer work day	10 th - Master Gardener Meeting 5:30 at Extension Office 12 th - Garden Crew	16 th - Master Gardener Garden Crew Day
25 th - 26 th - Master Gardener Conference Burlington, KY	12 th - Ag Day Event for National Farmers Day Pikeville Farmers Market 130 Adams Lane	28 th & 29 th - Office Closed for Thanksgiving Holiday



Pike County Extension Service

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Lexington, KY 40506



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