

Fall 2023 Publications

(October, November, and December)

[ID-172s](#)

[Guia de Monitoreo de MIP para Plagas Comunes de los Cultivos de Solanaceas en Kentucky](#)

12/22/2023 (*major revision*)

Authors: [Ric Bessin](#), [Nicole Ward Gauthier](#), [Rachel Rudolph](#), [Shawn Wright](#)

Este manual es el resultado de los esfuerzos del equipo de MIP en vegetales de la Universidad de Kentucky. Financiamiento para esta publicacion fue proporcionado por la Proteccion de Cultivos y Manejo de Plagas (CPPM), el Programa de Implementacion de Extension (EIP), propuesta No. 2021-70006-35440 de el Instituto Nacional de Alimentos y Agricultura de la USDA. La version en espanol de esta publicacion fue posible gracias a fondos de la USDA Smith-Lever.

Departments: [Entomology](#), [Horticulture](#), [Plant Pathology](#)

Series: [Interdepartmental](#) (ID series)

Size: 49.44 mb

Pages: 48

[ID-184S](#)

[Guia de Monitoreo de MIP para Problemas Comunes del Maiz Dulce \(Elote\) en Kentucky](#)

12/22/2023 (*major revision*)

Authors: [Ric Bessin](#), [Tim Coolong](#), [Kenny Seebold](#)

Este manual es el resultado de los esfuerzos del equipo MIP para Vegetales de la Universidad de Kentucky. El financiamiento para esta publicacion en ingles fue proporcionado por el Programa de Manejo Integrado de Plagas y el Servicio Cooperativo de Extension de la Universidad de Kentucky. La version en espanol de esta publicacion fue posible gracias a fondos de la USDA Smith-Lever.

Departments: [Entomology](#), [Horticulture](#), [Plant Pathology](#)

Series: [Interdepartmental](#) (ID series)

Size: 13.81 mb

Pages: 16

[ID-216S](#)

[Guia de Monitoreo de MIP para Plagas Comunes de los Cultivos de Coles en Kentucky](#)

12/22/2023 (major revision)

Authors: [Ric Bessin](#), [Tim Coolong](#), [Kenny Seebold](#)

Este manual es el resultado de los esfuerzos del equipo MIP para Vegetales de la Universidad de Kentucky. El financiamiento para esta publicacion fue proporcionado por el Programa de Manejo Integrado de Plagas y por el Servicio Cooperativo de Extension de la Universidad de Kentucky. La version en espanol de esta publicacion fue posible gracias a fondos de la USDA Smith-Lever.

Departments: [Entomology](#), [Horticulture](#), [Plant Pathology](#)

Series: [Interdepartmental](#) (ID series)

Size: 12.21 mb

Pages: 16

[ID-227S](#)

[Guia de Monitoreo de MIP para Plagas Comunes de los Cultivos de Legumbres Horticolas en Kentucky](#)

12/22/2023 (major revision)

Authors: [Ric Bessin](#), [Nicole Ward Gauthier](#), [Cheryl Kaiser](#), [Shubin Saha](#), [Shawn Wright](#)

Este manual es el resultado de los esfuerzos del equipo MIP para Vegetales de la Universidad de Kentucky. El financiamiento para esta publicacion en ingles fue proporcionado por el Programa de Manejo Integrado de Plagas. La version en espanol de esta publicacion fue posible gracias a fondos de la USDA Smith-Lever.

Departments: [Entomology](#), [Horticulture](#), [Plant Pathology](#)

Series: [Interdepartmental](#) (ID series)

Size: 33.61 mb

Pages: 32

[ID-235S](#)

[Guia de Monitoreo de MIP para Problemas Comunes en Cultivos de Vegetales en Tunel e Invernaderos en Kentucky](#)

12/22/2023 (major revision)

Authors: [Ric Bessin](#), [Cheryl Kaiser](#), [John Obrycki](#), [Emily Pfeufer](#), [Rachel Rudolph](#), [Shawn Wright](#)

Este manual es el resultado de los esfuerzos del equipo de MIP en vegetales de la Universidad de Kentucky. Financiamiento para esta publicación fue proporcionado por el programa de Manejo Integrado de Plagas de la Universidad de Kentucky.

Departments: [Entomology](#), [Horticulture](#), [Plant Pathology](#)

Series: [Interdepartmental](#) (ID series)

Size: 23.23 mb

Pages: 28

[PR-845](#)

[2023 Annual Grass Report Warm Season and Cool Season \(Cereals\)](#)

12/21/2023 *(new)*

Authors: [Bill Bruening](#), [Gene Olson](#), [Ray Smith](#), [Chris Teutsch](#)

Summer annual grasses provide an important forage crop option for producers in Kentucky. These grasses are mainly used as emergency or supplemental pasture, silage, or hay crops, but little information is available on their yield potential. The purpose of this publication is to summarize the University of Kentucky 2008-2021 forage yield trials with sudangrass, sorghum/sudangrass, forage sorghum, millets, teff, crabgrass, and cereal crops.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 1.48 mb

Pages: 36

[AEN-173](#)

[Shelterbelts for Livestock](#)

12/19/2023 *(new)*

Authors: [Steve Higgins](#)

Livestock must maintain a normal body temperature to optimize their production potential. Providing shade and protection from wind are two ways producers can aid in managing the impact of temperature-related stress on their livestock.

Departments: [Biosystems and Agricultural Engineering](#)

Series: [Agricultural Engineering](#) (AEN series)

Size: 4.66 mb

Pages: 7

[PR-837](#)

[2023 Alfalfa Report](#)

12/18/2023 *(new)*

Authors: [Jimmy Henning](#), [Gene Olson](#), [Ray Smith](#), [Chris Teutsch](#)

Alfalfa (*Medicago sativa*) has historically been the highest-yielding, highest-quality forage legume grown in Kentucky. It is an important part of Kentucky's cash hay enterprise and is an important component in dairy, horse, beef, and sheep diets. Choosing a good variety is a key step in establishing a stand of alfalfa. The choice of variety can impact yield, thickness of stand, and persistence.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 748 kb

Pages: 12

[PR-838](#)

[2023 Orchardgrass Report](#)

12/18/2023 *(new)*

Authors: [Gene Olson](#), [Tim Phillips](#), [Ray Smith](#), [Chris Teutsch](#)

Orchardgrass (*Dactylus glomerata*) is a high-quality, productive, cool-season grass that is well-adapted to Kentucky conditions. This grass is used for pasture, hay, green chop, and silage, but it requires better management than tall fescue for greater yields, higher quality, and longer stand life. It produces an open, bunch-type sod, making it compatible with alfalfa or red clover as a pasture and hay crop or as habitat for wildlife.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 464 kb

Pages: 8

[PR-839](#)

[2023 Tall Fescue, Bromegrass, and Meadow Fescue Report](#)

12/18/2023 *(new)*

Authors: [Jimmy Henning](#), [Gene Olson](#), [Tim Phillips](#), [Ray Smith](#), [Chris Teutsch](#)

Tall fescue (*Festuca arundinacea*) is a productive, well-adapted, persistent, soil-conserving, cool-season grass grown on approximately 5.5 million acres in Kentucky. This grass, used for both hay and pasture, is the forage base of most of Kentucky's livestock enterprises, particularly beef cattle.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 726 kb

Pages: 16

[PR-842](#)

[2023 Alfalfa, Red Clover, and White Clover Grazing Tolerance Report](#)

12/18/2023 (*new*)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Ray Smith](#), [Chris Teutsch](#)

Alfalfa (*Medicago sativa*) is the highest-yielding, highest-quality forage legume grown in Kentucky. It forms the basis of Kentucky's cash hay enterprise and is an important component in dairy, horse, beef, and sheep diets. Recent emphasis on its use as a grazing crop and the release of grazing-tolerant varieties have raised the following question: Do varieties differ in tolerance to grazing? To answer this question, we have chosen to use the standard tolerance test recommended by the North American Alfalfa Improvement Conference. This test uses continuous heavy grazing to sort out differences in grazing tolerance in a relatively short period of time.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 480 kb

Pages: 12

[PR-843](#)

[2023 Cool-Season Grass Grazing Tolerance Report](#)

12/18/2023 (*new*)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Tim Phillips](#), [Ray Smith](#), [Chris Teutsch](#)

Cool-season forages such as tall fescue, orchardgrass, and Kentucky bluegrass are the primary pasture grasses in Kentucky. Other species such as perennial ryegrass and festulolium can also be used in pasture systems. Little is known about the effect of variety on the grazing tolerance of these cool-season grass species.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 621 kb

Pages: 16

[PR-844](#)

[2023 Cool-Season Grass Horse-Grazing Tolerance Report](#)

12/18/2023 (*new*)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Tim Phillips](#), [Ray Smith](#), [Chris Teutsch](#)

Cool-season forages such as Kentucky bluegrass, tall fescue, and orchardgrass are dominant pasture grasses for horses in Kentucky. Variety evaluations for yield have been carried out for many years, but little work has been done to evaluate varieties of these grasses for persistence when subjected to close, continuous grazing by horses.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 419 kb

Pages: 8

[FCS3-626](#)

[Vitamins, Minerals, and Athletic Performance](#)

12/15/2023 (*minor revision*)

Authors: [Kyle Flack](#), [Harry Hays](#), [Jack Moreland](#)

There are many sources of vitamins and minerals in our diet from both animal and plant sources. Certain vitamins and minerals are especially important for athletic performance. These include B-vitamins, iron, zinc, selenium, and electrolytes - sodium, potassium, chloride, calcium, magnesium, and phosphorus. We are going to focus on the vitamins and minerals present in fruits and vegetables and their impact on athletic performance.

Departments: [Dietetics and Human Nutrition](#), [Family and Consumer Sciences](#)

Series: [FCS: Food and Nutrition](#) (FCS3 series)

Size: 607 kb

Pages: 2

[PR-836](#)

[2023 Red and White Clover and Annual Lespedeza Report](#)

12/12/2023 (new)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Ray Smith](#), [Chris Teutsch](#)

Red clover (*Trifolium pratense* L.) is a high-quality, short-lived, perennial legume used in mixed or pure stands for pasture, hay, silage, green chop, soil improvement, and wildlife habitat. This species is adapted to a wide range of climatic and soil conditions. Stands of improved varieties generally are productive for 2.5 to 3 years, with the highest yields occurring in the year following establishment. Red clover is used primarily as a renovation legume for grass pastures and hay fields. It is a dominant forage legume in Kentucky because it is relatively easy to establish and has high forage quality, yield, and animal acceptance.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 472 kb

Pages: 8

[PR-846](#)

[2023 Long-Term Summary of Kentucky Forage Variety Trials](#)

12/12/2023 (new)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Ray Smith](#), [Chris Teutsch](#)

Forage crops occupy approximately 7 million acres in Kentucky. Forages provide a majority of the nutrition for beef, dairy, horse, goat, sheep, and wildlife in the state. In addition, forage crops play a positive environmental role in soil conservation, water quality, and air quality. There are more than 60 forage species adapted to the climate and soil conditions of Kentucky. Only 10 to 12 of these species occupy the majority of the acreage, but within these species there is a tremendous variation in varieties.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 1.60 mb

Pages: 32

[PR-840](#)

[2023 Timothy and Kentucky Bluegrass Report](#)

12/7/2023 (new)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Tim Phillips](#), [Ray Smith](#), [Chris Teutsch](#)

Timothy (*Phleum pratense*) is the fourth most widely sown cool-season perennial grass used in Kentucky for forage - after tall fescue, orchardgrass, and Kentucky bluegrass. It is a late-maturing bunchgrass that is primarily harvested as hay, particularly for horses. It also can be used for grazing or wildlife habitat.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 419 kb

Pages: 8

[PR-841](#)

[2023 Annual and Perennial Ryegrass and Festulolium Report](#)

12/7/2023 (*new*)

Authors: [Jimmy Henning](#), [Gene Olson](#), [Tim Phillips](#), [Ray Smith](#), [Chris Teutsch](#)

Annual ryegrass (*Lolium multiflorum*) and perennial ryegrass (*Lolium perenne*) are high quality, productive, cool-season grasses used in Kentucky. Both have exceptionally high seedling vigor and are highly palatable to livestock. In Kentucky, winter survival can be an issue for many annual ryegrass varieties, so before planting, review winter survival results in this publication.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 760 kb

Pages: 16

[PR-834](#)

[Kentucky Corn Silage Hybrid Performance Report, 2023](#)

12/6/2023 (*new*)

Authors: [Cam Kenimer](#), [Chad Lee](#), [Dalton Mertz](#), [Phillip Shine](#)

The objective of the Silage Corn Hybrid Performance Test is to provide unbiased forage yield and quality data for corn hybrids commonly grown for silage in Kentucky.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 244 kb

Pages: 4

[PR-832](#)

[2023 Fruit and Vegetable Crops Research Report](#)

12/5/2023 (*new*)

Authors: [Daniel Becker](#), [Maya Horvath](#), [Rachel Rudolph](#), [Ginny Travis](#), [Dwight Wolfe](#)

This report is a bit different from previous reports in that it represents two years' worth of work. It is also smaller than the reports of previous years. In 2021, a tornado destroyed much of our research center in Princeton, KY, and in 2022, a flood destroyed much of our research center in Quicksand, KY. Although both locations are rebuilding as quickly as they can, research trials have been hindered. We hope to have more trials and more reports in the future. Research was conducted by University of Kentucky faculty, staff, and students from the Department of Horticulture, as well as faculty and staff of Kentucky State University.

Departments: [Horticulture](#)

Series: [Progress Report](#) (PR series)

Size: 5.16 mb

Pages: 16

[ASC-258](#)

[Minerals Matter for Beef Cattle](#)

11/20/2023 (*new*)

Authors: [Michelle Arnold](#), [Kevin Laurent](#), [Jeff Lehmkuhler](#), [Katherine VanValin](#)

Minerals are an essential nutrient for beef cattle. If minerals are not consumed in the diet, deficiencies can occur. At the same time, overconsumption of certain minerals can result in toxicity. Providing the proper balance of each mineral without overconsumption is necessary for optimal performance, as minerals are essential for supporting growth, reproduction, lactation, and health.

Departments: [Animal and Food Sciences](#), [Veterinary Science](#)

Series: [Animal Science](#) (ASC series)

Size: 1.25 mb

Pages: 5

[NEP-233](#)

[Growing Your Own: Composting](#)

11/16/2023 (*new*)

Authors: [Daniel Bowen](#), [Rick Durham](#), [Erika Olsen](#), [Rachel Rudolph](#)

Composting is the controlled breakdown of materials such as leaves, grass clippings, and food scraps, also called organic matter. During composting, tiny microorganisms feed on these leftovers. Once the microorganisms are done eating, compost will be all that remains.

Departments: [Extension Office](#), [Family and Consumer Sciences](#), [Horticulture](#)

Series: [Nutrition Education Program](#) (NEP series)

Size: 3.33 mb

Pages: 4

[AGR-6](#)

[Weed Control Recommendations for Kentucky Grain Crops, 2024](#)

11/15/2023 (*minor revision*)

Authors: [J.D. Green](#), [Travis Legleiter](#)

The use of herbicides suggested in this publication is based on research at the Kentucky Agricultural Experiment Station and elsewhere. We have given what we believe to be the most effective herbicides, with the most suitable rates and times of application. Smaller files are available here.

Departments: [Plant and Soil Sciences](#)

Series: [Agronomy](#) (AGR series)

Size: 6.85 mb

Pages: 144

[PR-835](#)

[2023 Kentucky Hybrid Corn Performance Test](#)

11/15/2023 (*new*)

Authors: [Cam Kenimer](#), [Chad Lee](#), [Dalton Mertz](#), [Phillip Shine](#)

The objective of the Kentucky Hybrid Corn Performance Test is to provide relative performance estimates of hybrid seed corn sold in Kentucky. The test attempts to treat every hybrid similarly in an unbiased manner. Agronomic practices that meet or exceed university guidelines are implemented at each location.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 685 kb

Pages: 8

[FCS4-411](#)

[Healthy Homes: Indoor Air Quality Managing Asthma Triggers in the Home](#)

11/9/2023 (*major revision*)

Authors: [Linda Adler](#)

Asthma, a serious lung disease, is a leading cause of long-term illness in children. In Kentucky, 10.6% of children 11 years old and younger, 13.6% of middle school students, 11.8% of high school students and 18.6% of adults have asthma. While asthma can affect anyone at any age, it is more common among black people. In Kentucky, 13.9% of black people have asthma compared to 8.2% of white people. Additionally, black people are twice as likely to die from asthma-related illness as white people.

Departments: [Family and Consumer Sciences](#)

Series: [FCS: Housing and Home Furnishings](#) (FCS4 series)

Size: 7.03 mb

Pages: 8

[AGR-275](#)

[Tall Fescue Novel Endophyte Varieties and Establishment for Livestock and Horse Farms](#)

11/2/2023 (*new*)

Authors: [Krista Lea](#), [Stephanie Smith](#), [Ray Smith](#)

"Endophyte" refers to a fungus that lives within the fescue plant, meaning it cannot be seen with the naked eye. The endophyte found in tall fescue is beneficial to the plant: It gives tall fescue insect resistance, enhanced grazing tolerance, and greater persistence in stressful environments. The major disadvantage of some of the endophytes of tall fescue is that they produce toxic alkaloids that have detrimental effects on many types of livestock.

Departments: [Plant and Soil Sciences](#)

Series: [Agronomy](#) (AGR series)

Size: 889 kb

Pages: 2

[ID-276](#)

[Proper Grounding as Part of an Electric Fencing System](#)

11/1/2023 (*new*)

Authors: [Morgan Hayes](#), [Chris Teutsch](#)

Electric fencing provides a successful boundary by shocking an animal when there is contact between the animal and the fence wire. For electric fencing to work properly, current or electricity from the fence must travel through the animal, into the ground, and back to the energizer. The grounding on the energizer works as an "antenna" to collect the current and complete the circuit, which allows the animal to feel the shock. Frustration with electric fencing occurs when animals do not receive a proper shock when they first come in contact with the fence.

Departments: [Biosystems and Agricultural Engineering](#), [Plant and Soil Sciences](#)

Series: [Interdepartmental](#) (ID series)

Size: 4.48 mb

Pages: 3

[FOR-173](#)

[Identifying and Addressing River Otter Damage Issues in Kentucky](#)

10/31/2023 (*new*)

Authors: [Jonathan Matthews](#), [Matthew Springer](#), [Gabriela Wolf-Gonzalez](#)

River otters (*Lontra canadensis*) were once abundant throughout North America, but unregulated harvest, water pollution, and overall habitat degradation decimated river otter populations across the contiguous United States. By the early 1900s, river otters were scarce in Kentucky; however, due to restoration programs implemented by Kentucky Department of Fish and Wildlife Resources (KDFWR), this species has rebounded in the state. River otters can now be found throughout Kentucky.

Departments: [Forestry and Natural Resources](#)

Series: [Forestry and Natural Resources](#) (FOR series)

Size: 3.50 mb

Pages: 7

[FOR-174](#)

[Fall Webworms](#)

10/31/2023 (*new*)

Authors: [Ellen Crocker](#), [Jonathan Larson](#)

Fall webworms are native tent caterpillars that can be found throughout the United States and southern Canada. This species is distinguished by its "tent" constructed at the ends of tree branches, allowing caterpillars to feed gregariously on enclosed foliage. While these insects can cause heavy defoliation, especially during periodic outbreaks, fall webworms by themselves do not cause mortality in healthy trees and are typically not a serious concern meriting management. However, other tent-forming caterpillars may be confused with fall webworm (such as the eastern

tent caterpillar) and learning to distinguish these species can be useful for understanding potential impacts.

Departments: [Entomology](#), [Forestry and Natural Resources](#)

Series: [Forestry and Natural Resources](#) (FOR series)

Size: 3.26 mb

Pages: 4

[FOR-175](#)

[Woodland Invasive Plant Management Series: Bush Honeysuckle](#)

10/31/2023 (*new*)

Authors: [John Cox](#), [Ellen Crocker](#), [Jacob Muller](#), [Jeff Stringer](#), [Billy Thomas](#)

Several species of Asian bush honeysuckle in the genus *Lonicera* are invasive in North America. The most common invasive bush honeysuckle species in Kentucky is the Amur honeysuckle (*Lonicera maackii*) but other invasive honeysuckle species include *L. morrowii*, *L. tatarica*, *L. x bella*. These species, originally native to China, Korea and parts of Japan, were introduced to the U.S. as far back as the late 1800s and were promoted for conservation and wildlife uses in the 1960s and 1970s. Unfortunately, bush honeysuckles are still popular ornamental plants despite easily escaping into natural areas. The negative impact of dense stands of these species and the ease in which they can escape cultivation is a major concern across the region.

Departments: [Forestry and Natural Resources](#)

Series: [Forestry and Natural Resources](#) (FOR series)

Size: 4.07 mb

Pages: 6

[PR-833](#)

[2023 Kentucky Soybean Variety Performance Trials](#)

10/31/2023 (*new*)

Authors: [Bill Bruening](#), [Cam Kenimer](#), [Dalton Mertz](#), [Phillip Shine](#)

The Kentucky Soybean Variety Performance Trials are conducted to provide an unbiased and objective estimate of the relative performance of soybean varieties commercially available in Kentucky. Annual evaluation of soybean varieties provides farmers, seed producers, and other agricultural workers with current information to help them select the varieties best adapted to their locality and individual requirements.

Departments: [Plant and Soil Sciences](#)

Series: [Progress Report](#) (PR series)

Size: 996 kb
Pages: 16

[ASC-259](#)

[Reproduction in Female Yaks](#)

10/26/2023 (*new*)

Authors: [Les Anderson](#), [Jeff Lehmkuhler](#), [Mary McCarty](#), [Katherine VanValin](#)

The yak (*Bos grunniens*) is a unique domestic animal. These animals were developed in the extreme environment of the Himalayas, where food resources can be extremely limiting. The yak provides food (meat and milk), fiber (hair), and are beasts of burden (used for pack, transportation, plowing, etc.) for the local populations. The number of yaks in the world is limited, creating a need to understand and control reproduction in the yak to improve genetic diversity.

Departments: [Animal and Food Sciences](#)

Series: [Animal Science](#) (ASC series)

Size: 2.60 mb

Pages: 3

[ASC-260](#)

[Controlling Reproduction in Female Yaks](#)

10/26/2023 (*new*)

Authors: [Les Anderson](#), [Jeff Lehmkuhler](#), [Mary McCarty](#), [Katherine VanValin](#)

The yak (*Bos grunniens*) is a member of the bovine family and plays a vital role in the life of the people of the Himalayan region (China, Mongolia, India, Nepal, etc). The Himalayas is an especially harsh region with long, cold winters and sparse vegetation for most of the year. As with all bovine, nutrient availability, both quality and quantity of available foodstuffs, and current status of body reserves or degree of fat stored in the body dictate the ability of the cow to conceive during a breeding season. Even though conception rate (probability of conception at a single estrus event), is high (70+%), pregnancy rate (probability of conception at the end of a breeding season) is typically only 40%-60% in their natural environments because a high proportion of female yaks fail to have an estrus during the breeding window. Understanding the major factor reducing pregnancy rate is important to creating and implementing management protocols to improve the reproductive ability of female yaks.

Departments: [Animal and Food Sciences](#)

Series: [Animal Science](#) (ASC series)

Size: 2.21 mb

Pages: 4

[ID-91](#)

[An IPM Scouting Guide for Common Problems of Cucurbit Crops in Kentucky](#)

10/20/2023 (*major revision*)

Authors: [Ric Bessin](#), [Nicole Ward Gauthier](#), [Rachel Rudolph](#), [Shawn Wright](#)

Long before the term "sustainable" became a household word, farmers were implementing sustainable practices in the form of integrated pest management (IPM) strategies. IPM uses a combination of biological, cultural, physical, and chemical methods to reduce and/or manage pest populations. These strategies are used to minimize environmental risks, costs, and health hazards. Pests are managed, to reduce their negative impact on the crop, but they are rarely eliminated entirely.

Departments: [Entomology](#), [Horticulture](#), [Plant Pathology](#)

Series: [Interdepartmental](#) (ID series)

Size: 40.75 mb

Pages: 36

[HENV-712](#)

[BMP Maintenance and Operation: Filter Strip](#)

10/12/2023 (*new*)

Authors: [Benjamin Currens](#), [Andrea Drayer](#), [Rick Durham](#), [Brad Lee](#)

Filter strips are planted and maintained strips of vegetation designed to provide pretreatment of stormwater runoff before it flows into adjacent best management practices (BMPs). Gently sloped, the dense vegetation within the strip reduces the speed of stormwater. This allows for the capture of sediment as stormwater from impervious surfaces passes through the filter strip.

Departments: [Horticulture](#), [Plant and Soil Sciences](#)

Series: [Home and Environment](#) (HENV series)

Size: 7.32 mb

Pages: 4

[HENV-713](#)

[BMP Maintenance and Operation: Retention Basin](#)

10/12/2023 (*new*)

Authors: [Benjamin Currens](#), [Andrea Drayer](#), [Rick Durham](#), [Brad Lee](#)

Retention basins, or wet ponds, retain a deep, permanent pool of water that can collect stormwater and release it slowly to maintain a desired water level, after which the excess stormwater is released slowly via an outlet (drawdown orifice). Retention basins should always have a baseline level of water present and may be vegetated. Retention basins provide a higher level of pollutant retention (up to 80 percent) and a lower chance of sediment resuspension than detention basins (dry ponds).

Departments: [Horticulture, Plant and Soil Sciences](#)

Series: [Home and Environment](#) (HENV series)

Size: 6.80 mb

Pages: 5

[HENV-714](#)

[BMP Maintenance and Operation: Grass Swale](#)

10/12/2023 *(new)*

Authors: [Benjamin Currens](#), [Andrea Drayer](#), [Rick Durham](#), [Brad Lee](#)

Grass swales, or dry swales, are designed to transport stormwater, promote infiltration, and capture sediment during a storm event. Grass swales are turfgrass-planted channels constructed with wide bottoms to encourage infiltration of stormwater into the underlying soil. Vegetation in the channel functions to reduce the speed of stormwater and trap sediment as water is conveyed through the channel. When functioning properly, these swales hold water no longer than six hours after a storm and should remain dry until the next storm event.

Departments: [Horticulture, Plant and Soil Sciences](#)

Series: [Home and Environment](#) (HENV series)

Size: 5.57 mb

Pages: 4

[HENV-715](#)

[BMP Maintenance and Operation: Detention Basin](#)

10/12/2023 *(new)*

Authors: [Benjamin Currens](#), [Andrea Drayer](#), [Rick Durham](#), [Brad Lee](#)

Detention basins, or dry ponds, are designed to collect water during a storm event and hold it for a certain amount of time, usually 48 hours. This short impoundment of stormwater allows pollutants carried in the stormwater to settle to the bottom of the basin before collected stormwater is released through a slow-release outlet. When functioning properly, these basins should remain dry after the release of water until the next storm event.

Departments: [Horticulture, Plant and Soil Sciences](#)

Series: [Home and Environment](#) (HENV series)

Size: 8.23 mb

Pages: 4

