Texas A&M AgriLife Extension

Home Grown Newsletter

October 2022

What are Microbial Insecticides?

by Paul Winski, Harris County Extension Agent, Horticulture

Microbial insecticides are becoming more popular not only for greenhouse and nursery producers, but also for the home gardener. These insecticides consist of microorganisms that attack the insects you want to control.

Some of these insecticides can be virus based. The insect takes in the virus while feeding on the plant, the virus replicates inside the insect which results in death.

Others have a bacterium as the active ingredient. After the microbe is ingested, it attacks the gut lining of the insect. The most common example of this type of insecticide is Dipel with the bacterium Bacillus thuringiensis used to control young caterpillars.

The third type of microbial insecticide is fungal based. This form attacks the insect from the outside. The spores land on the insect and grow into its body eventually killing the pest. A major requirement for this type of insecticide to be successful is high humidity, it helps the spores to germinate and grow.

What's New?

Home Grown Podcast

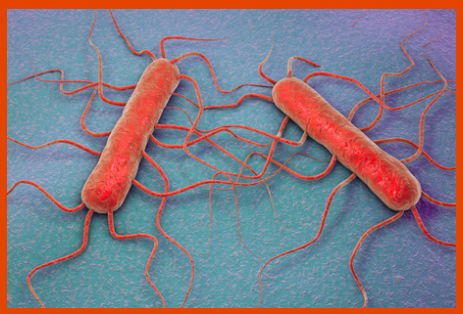
Episode #16 Dr. Becky Bowling - Urban Water Extension Specialist & Assistant Professor, Texas A&M AgriLife Extension & TWRI

Click here to listen.

Home Grown Lecture Series: Proper Pruning in the Landscape

October 6, 2022 - 10:00 a.m.

Register Here



What are Microbial Insecticides?

by Paul Winski, Harris County Extension Agent, Horticulture

Advantages of Microbials:

- The organisms used are nontoxic and nonpathogenic to wildlife, humans and other organisms not closely related to the target pest.
- The toxic action is often specific to a single species of insects.
- The pathogenic microorganism can be established in a pest population or its habitat and provide control over multiple generations.

Disadvantages of Microbials:

- Since the microbial insecticide is toxic to only a specific species or group of insects an application may control only a limited population of the pests present.
- Heat, desiccation, or exposure to UV radiation can reduce the effectiveness of some microbials. Proper timing of application is key to success.

Microbial insecticides are another tool for your IPM program. Be sure to read and follow all label directions prior to use.

What to Plant This Month

by Brandi Keller, Harris County Extension Agent, Horticulture

Fall is always exciting because of changes it means for the weather and our gardens. Not only can we change out annuals for immediate impact, we can also set the stage for winter/spring edibles and ornamentals with a few easy steps.

Plant Spring Wildflower Seeds in the Fall

Many wildflower seeds do not germinate right after planting. New seedlings would not survive extended rain or temperature drops. They need a time to "break dormancy." Fall and winter help do this naturallly.
Tips when sowing wildflower seeds:

- Ensure good contact with soil to retain moisture.
- Do not bury or cover seeds.
- Tamp and water well, but do not overwater.
- Mix seeds with sand (1:4 ratio) for even distribution.

Intermix wildflowers species for succession and variety. Species to consider: winecup, American basket-flower, coreopsis, cardinal flower, Texas bluebonnet, purple coneflower, black-eyed Susan, Indian blanket, Mexican hat, Indian paintbrush, and evening primrose.

Plant Spring Bulbs

Spring bulbs need to establish roots over the winter so they can focus on healthy foliage and flowers for spring.

- Amend soil with organic matter for improved drainage.
- Plant depth is twice the diameter of the bulb.
- Space bulbs apart only the diameter of the bulbs.
- Add bone meal under each bulb for phosphorous.
- Plant en masse for greater impact.

In the Vegetable Garden

Transplants

- Artichoke
- Broccoli
- Brussel sprout
- Cabbage
- Cauliflower
- Collards

Seeds

- Beets
- Carrots
- Swiss chard
- Kale
- Kohlrabi
- Spinach
- Turnips
- English/snap peas
- Leek
- Lettuce
- Mustard
- Onion
- Radish

Divide Perennials

Dig up root ball and remove any debris or dead stems. Separate with spade or by hand into smaller clumps. Bulbs can be separated out individually. Replant at original depth. Water well and apply mulch. Divide every 3-5 years to maintain size or refresh a declining plant.

To watch for **"All About Mint,"** Click HERE.

Common Pests: Fall Armyworm

Shannon Dietz, Harris County Extension Agent, Ag & Natural Resources

The fall armyworm is a common pest of bermudagrass, sorghum, corn, wheat and ryegrass and many other crops across the state of Texas. Armyworms belong to the insect order Lepidoptera and family Noctuidae. Common species of armyworms present in Texas include: the fall armyworm, the yellow-striped armyworm, the beet armyworm, and the true armyworm. Of these four species, the fall armyworm is the most common cause of damaged turf grass on golf courses, athletic fields and home landscapes. The armyworm has four life stages: egg, larvae, pupa and adult.

Armyworms are very small, about an 1/8 of an inch, at first, causing little plant damage and as a result, infestations usually go unnoticed. Larvae feed for 2-3 weeks and full-grown larvae are about 1 to 1 ½ inches long. Given their immense appetite along with great numbers and marching ability, fall armyworms can damage an entire field or pasture in a just a few short days.

Fall armyworm outbreaks in pastures and hay fields often occur following a rain which apparently creates favorable conditions for eggs and small larvae to survive in large numbers. Hay fields with dense canopy and vigorous growth are often more susceptible to armyworm infestations than less intensely managed fields. Irrigated fields are also susceptible to fall armyworm infestations, especially during drought conditions. You should also monitor weedy grasses in ditches and around fields which may be a source of armyworms that can move to your nearby crops.

Look for fall armyworm larvae feeding in the crop canopy during the late evening and early morning as well as cool and cloudy weather. During hot days, look for armyworms low in the canopy or even on the soil surface where they hide under loose soil and fallen leaves. When fields are wet with dew, armyworms can stick on rubber boots worn while walking through the field. Small larvae chew the green layer from the leaves and leave a clearing or “windowpane” effect and later notch the edge of the leaves.

Common Pests: Fall Armyworm

Shannon Dietz, Harris County Extension Agent, Ag & Natural Resources

The key to managing fall armyworms is frequent inspection of fields to detect fall armyworm infestations before they have caused economic damage. Once larvae are greater than ¼ inch long, the quantity of foliage they eat increases dramatically. During their final 2-3 days of feeding, armyworms consume8 80% of the total foliage consumed during their entire development. Initial damage can resemble drought stress.

Healthy bermudagrass typically recovers after defoliation because its rhizomes are stolon's grow so aggressively. However, newly established bunch-type grasses, such as ryegrass or fescue, may be stunted more severely or even killed by armyworm feeding.

Fall armyworms live for two to four weeks depending on the temperatures. They are primarily identifiable by two features. The head will have apparent white markings that form an upside-down Y pattern. The second feature is that the last couple of segments of the caterpillar will have black bumps that form a square or rectangle. Of the more common methods to scout for caterpillars is get close to the grass and closely inspect the lower parts of the plants or soil surface where they hide out from the harsh temperatures.

To learn more about fall armyworms along with managing and controlling insect pests of Texas forage crops, you can download a copy of the publication at no charge by accessing **www.agrilifebookstore.org/** and search by title, Managing Insect Pests of Texas Forage Crops or Ento 064.

The Home Grown Podcast!

The Home Grown podcast is presented by the Agriculture & Natural Resources (ANR) Unit of the Harris County Texas A&M AgriLife Extension office. The series provides information on urban agriculture / horticulture / gardening and ag literacy. Check out our latest episodes below.

Episode #16
On this episode, Paul talks with Becky Bowling and her position as an urban water specialist in Texas. They'll discuss how education is evolving to better prepare city & county governments, the green industry and homeowners for developing sustainable landscapes.

Episode #15
Brandi interviews Bryan Kratish, Manager of Outreach Services with the Harris County Public Library System. They discuss the partnership with the Master Gardener Green Thumb Gardening Series and the library system's creative programming to reach more county residents.

Episode #14
On this episode, Paul talks with Lauren Kirchner, the director of sales & marketing at Spring Creek Growers in Waller, Texas. Paul & Lauren talk about her family's greenhouse operation and the current trends that she is seeing in the industry.

Episode #13
Shannon interviews Mr. Steven Sisler, DAR (Disaster and Recovery) Agent with Texas A&M AgriLife Extension Harris County. Mr. Sisler shares important and timely information about emergency preparedness and information for the 2022 Hurricane Season.

Episode #12
Brandi interviews Sherri Harrah, manager and hardline buyer for Plants For All Seasons Garden Center. They discuss an overview of the family-owned business, a few observations as a woman in horticulture, and touch on some current buying trends in the market today.

How do you access the podcast?
Click on the image below or go to https://www.buzzsprout.com/1791415. You can also search "Home Grown" wherever you find your podcasts.

Harris County Extension Agents
Horticulture
Paul Winski
Brandi Keller
Ag/Natural Resources
Shannon Dietz

2022 HOME GROWN LECTURE SERIES

Lectures will be on the first Thursday of each month and include live demonstrations. Register now so you don't miss one!

Winter

STARTING PLANTS FROM SEEDS
Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

January 6, 2022 - 10:00 a.m.

BASIC GRAFTING TECHNIQUES
Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

February 3, 2022 - 10:00 a.m.

TOMATOES FOR THE PATIO
Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

March 3, 2022 - 10:00 a.m.

Summer

IDENTIFYING PEST & DISEASE ISSUES IN THE GARDEN
Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

July 7, 2022 - 10:00 a.m.

SAFETY IN THE HOME GARDEN
Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

August 4, 2022 - 10:00 a.m.

ALL ABOUT MINT
Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

September 1, 2022 - 10:00 a.m.

Spring

STARTING PLANTS FROM CUTTINGS
Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

April 7, 2022 - 10:00 a.m.

HOME BUTCHER: MAKING BOUDIN
Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

May 5, 2022 - 10:00 a.m.

10 REASONS FOR YELLOWING LEAVES
Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

June 2, 2022 - 10:00 a.m.

Fall

PROPER PRUNING IN THE LANDSCAPE
Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

October 6, 2022 - 10:00 a.m.

HOLIDAY MEATS - NOT JUST TURKEY!
Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

November 3, 2022 - 10:00 a.m.

PLANTABLE CHRISTMAS TREE ALTERNATIVES
Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

December 1, 2022 - 10:00 a.m.

Registration

TEXAS A&M AGRILIFE EXTENSION

homegrown2022.eventbrite.com

HARRIS COUNTY TEXAS

Contact Us

Paul Winski, County Extension Agent
Horticulture - Paul.Winski@ag.tamu.edu

Brandi Keller, County Extension Agent
Horticulture -Brandi.keller@ag.tamu.edu

Shannon Dietz - County Extension Agent
AG/NR - Shannon.Dietz@ag.tamu.edu

Social Media/Websites

Harris County Horticulture Facebook

Horticulture YouTube Channel

Harris County Master Gardeners Facebook

Harris County Ag & Natural Resources Facebook

Harris County AgriLife Website

If you would like to ***unsubscribe*** from the Home Grown newsletter, please email Susan Hubert at susan.hubert@ag.tamu.edu

TEXAS A&M AGRILIFE EXTENSION

HARRIS COUNTY TEXAS