K-STATE Research and Extension | Meadowlark District

June 11, 2021

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Livestock and Natural Resources

Mother Nature and Ponds

The last 3 weeks I have been “swamped” at work, considering I’ve been swamping around in farm ponds. I’ve seen everything from well-manicured and landscaped shorelines to huge slopes, the kind you can roll into the pond. I’ve seen some pretty clear water and then one that smelled like a sewer. The common theme is, people want good clean ponds for livestock, fishing and swimming and other recreational pursuits.

The main problems ponds have is too many weeds, too much algae, and not enough oxygen in the summertime. Depleted oxygen causes fish to die. To keep a pond healthy, you've got to do several things.

The first is to reduce weed growth by eliminating nutrient sources such as lawn or farm fertilizer, livestock manure, or septic tank leachate (the liquid produced by water trickling through the waste).

Pond weeds are a natural process, but we speed it up with fertilizer runoff. Autumn leaves are a double-whammy if you have trees around the pond. Falling leaves contain 60 percent of the nutrients a tree takes in during a year, he explains, so those nutrients now feed pond vegetation. In decomposing, leaves also take up dissolved oxygen, thus competing with fish for the oxygen supply. This results in more nutrients to feed even more pond weeds. Be sure to cut down trees that are on your dam. If they should die, the rotting roots can cause ponds to leak or weaken the dam. It's a natural ecosystem.

Mother Nature wants plants in a pond. People don't. There's been a change in our mindset since the days of bullfrogs on lily pads. Now people want ponds to be like a swimming pool, with crystal clear water full of 5-pound bass. But you can't have both. To eliminate the shallow water where weeds thrive, a pond should have relatively steep sides and good depth. A good slope is 1 foot down to every 3 feet across, and it is recommended that 25 percent of the pond be more than 8 feet deep - both for fish habitat and weed reduction. Oxygen depletion causes fish kills in summer because oxygen is less soluble in warm water, which is exactly when fish are most active and need more oxygen. Learn to spot the problem because if it's serious, it's immediate, and you have to act. You don't have time to price-shop for an aerator.

We do have an excellent publication on Aquatic Weeds; you can find it on our online bookstore at https://www.bookstore.ksre.ksu.edu/pubs/c667.pdf

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Crops & Soils/Horticulture

Corn Foliar Fungicide Timing

The confirmation this week of Southern Rust in Georgia and Texas is a good 'kick start' towards at least *thinking* about a disease management in this year's corn crop. Commodity prices, current stands, and upcoming weather all play roles in determining the economic viability of disease prevention applications. Efficacy of application does as well.

To provide an aid to the decision making process, 400 studies were conducted across the U.S. and Canada (Ontario) in 2014/2015 to compare foliar fungicide applications at two commonly recommended growth stages – V6 and tasseling. A two pass program combining both timings was also included. Two interesting trends emerged that might aid in the decision making process on your farm as we progress through the growing season.

First, single applications at tasseling resulted in greater yield responses and a greater likelihood of profitability when compared to applications at the six leaf stage. Two pass fungicide applications also resulted in greater yield responses than at V6 alone.

Second, fungicides that contained more than a single fungicide class increased yield responses above single class fungicide applications. Single class fungicides did not result in substantial yield responses over not applying a fungicide treatment.

For full results, including yield response levels to aid in determining whether commodity prices and fungicide application costs make a fungicide a profitable choice, check the study out online at: https://cropprotectionnetwork.org/resources/publications/impact-of-foliar-fungicide-timing-and-fungicide-class-on-corn-yield-response-in-the-united-states-and-ontario-canada .

Bagworms have Hatched

As of the first week of June, the 2021 bagworm hatch has begun. If you are going to be implementing a control program, now is the time to get ready. Insecticides should be applied when bagworm larvae are an eighth to a quarter inch long. Scout now to see how far along the hatch on your ornamentals and windbreak trees have progressed.

Eggs will be hatching over several weeks. With high numbers seen by many last year, repeat applications may be necessary. To determine if additional insecticide applications are needed, check plants for live bags that look like small cones, about the size of a pencil lead.

Many insecticide products are effective against bagworms. Read the label and look for bagworms under pests controlled and then the species you are spraying to make sure it is safe. Thorough coverage of plant foliage increases effectiveness. That means timing sprays for application in the morning or evening when larvae are most active. It also means spraying ample volumes with good coverage of the tree from top to bottom and from the outer branches to inner branches as well. Once bagworms reach an inch or greater in length, thick bags won't be penetrated by the insecticide and their feeding declines, further reducing pesticide exposure.

For a product list, contact any Meadowlark Extension District office or e-mail me at dhallaue@ksu.edu .

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Cindy Williams
Meadowlark Extension District
Food, Nutrition, Health, and Safety

No news article this week

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Nancy Nelson
Meadowlark Extension District
Family Life

No news article this week