University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

Ohio County Farm & Home News

Cooperative Extension Service

Ohio County
P O Box 66
Hartford KY 42347
270-298-7441
http://ohio.ca.uky.edu/

WHY FROST SEEDINGS FAIL

Nitrogen prices are down from their recent record-high levels. That's good news for those who make their living with grass. However, nitrogen fertilizer isn't the only means of providing this essential nutrient to grass — and it may not be the best — although grass plants really don't care where their nitrogen comes from.

Most producers who rotationally graze prefer to provide nitrogen to their pastures by means of nitrogen fixation from legumes and the ultimate dying off of root structures. The exception to this observation might be where winter cereals or ryegrasses are being grazed exclusively to fill a cool-season species gap.

Frost-seeding is the most commonly used method for seeding clovers. In addition to providing nitrogen, legumes help round out the protein portion of the livestock diet. That's important for meat animals, but it's critical for lactating animals. Legumes also add diversity to teach bite by the animals and help maintain pasture production during times when grass growth lags.

Although it's still early in January, some level of preplanning is necessary. For most areas of Kentucky, frost seeding legumes commences in February. Nearly all frost seeding is done by early April. Regardless of location, the principles for successful frost seeding are universal.

Frost seeding is easier and quicker than conventional seeding, but it also has a higher inherent risk of failure, so attention to detail becomes more critical. There is less room for error when frost seeding.

Frost seeding is almost always done to establish red, white, or some other type of clover in pastures, though some success has been experienced with other types of legumes and ryegrass. Without question, red clover offers the easiest and most productive road to frost-seeding success.

Dr. Chris Teutsch, U.K Extension Forage specialist, points out that clovers can play a key role in providing nitrogen to pasture grasses and are valuable as a mitigation tool for toxic tall fescue; however, just because clovers are present, it's still likely that livestock will be consuming a toxic dose of tall fescue during certain times of the year.

Why do frost seedings sometimes fail?

Occasionally, it's just bad luck that comes with less than desirable environmental conditions, but most failed seeding situations come down to poor seed-to-soil contact or too much competition once the seedlings do get established.

Seeds won't grow if there isn't contact with soil. They may germinate, but if soil contact does not occur, the seedling will not survive.

In the North, paddocks designated for frost seeding need to be grazed hard in late fall, exposing more soil for the broadcast seeds to land on. Farther south, grazing to remove residue can sometimes be accomplished right before frost seeding.

Although spreading seed on the field with an all-terrain vehicle (ATV) or tractor-mounted broadcast seeder is a popular means of frost seeding, some farmers prefer to use a drill, which helps ensure seed-to-soil contact, especially later in the seeding window.

Once germination occurs and seedlings emerge, they will face the daunting task of development under previously established plants. Existing pasture species don't wait for their new pasture mates to grow and catch up, so minimizing competition is a second important key to success. Established plants compete with the seedlings for light, nutrients, and moisture.

Dr. Teutsch recommends grazing pastures once seedlings establish. He notes that timing is critical. You want to remove some of that fast-growing top growth to open up the stand, but you don't want to leave cattle out there so long that they begin consuming the new seedlings.

Once the new legume seedlings reach about 6 inches tall, paddocks can be put back into the normal grazing rotation.

Making sure soil fertility and especially pH are at recommended levels. Soil tests are free, if you run them thru the Ohio Co. Extension Office. Use quality seed from improved varieties, and seeding at an effective rate will also contribute to frost-seeding success. However, none of these factors will overcome poor seed-to-soil contact and/or excessive competition after establishment.

If you are planning to do seeding this spring, I would suggest you check NOW with the your dealer. I understand seed supply, of some varieties is limited this year, due to the dry weather in seed production areas last year.

Also, if you want an excellent source for selecting quality varieties, pick up a copy of

"PR-846 Long Term Summary of Ky Forage Variety Trials". This publication will provide a summary of variety trial yields for ladino clover, red clover, alfalfa, fescue, orchardgrass, timothy, annual ryegrass, perennial ryegrass, sorghum-sudangrass, and others, along with a summary of trials for many of these varieties in grazing studies. You can pick up a copy at the Ohio Co. Extension office or download at :

https://www2.ca.uky.edu/agcomm/pubs/PR/PR846/PR846.pdf

INTENSIVE SOYBEAN MANAGEMENT WORKSHOP /COMMODITY CONFERENCE

Each year all the grain commodity groups host valuable meeting and workshops to provide producers' the most up-to-date production and marketing information. The following are the events which will occur during January & February.

***Intensive Soybean Management Workshop** - is set for Wednesday, Jan. 17, at the Sloan Convention Center and will feature Matt Miles, Chad Henderson, and Temple Rhodes of Xtreme Ag.

XtremeAg is a community of highly successful farmers from across the United States coming together to offer an Xtreme look into their personal farming operations. XtremeAg works with a network of top farmers in key regions to expand the reach of trial work, new perspectives, insights and expertise unique to the specific areas of farming. This team shares its collective knowledge and methods of how to overcome Xtreme challenges of the environment, equipment, technology, and even products. The goal of XtremeAg is to help its peers by openly sharing their accumulated knowledge around pursuing profitability and success.

Check-in for the workshop is at 11:45 a.m., with lunch served at noon. The event will kick off shortly thereafter and conclude around 4 p.m.

***Commodity Conference** - will be held the next day, January 18th at the Sloan Convention Center in Bowling Green. Along with various speakers in the morning, the different commodity associations will hold their annual meeting in the afternoon. The evening is dedicated to the Grower Awards Banquet, which recognizes the yield contest winners.

***Soybean Management Workshops** - will also be held at the soybean office in Princeton and the Hardin County Extension Office in Elizabethtown on Feb. 6 and 7, respectively.

These dates will feature Dr. Seth Naeve, who has conducted long-term research on protein and oil content in soybeans across the nation, and Patrick Hurt of Kentucky American Seeds.

Dr. Naeve's applied soybean production and physiology research focused yield and seed quality enhancement will benefit any operation. Patrick Hurt will discuss how to utilize plant physiology, Plant Growth Regulators, nutrition, and management practices to increase soybean production. He will discuss new and exciting ways to affect soybean architecture by increasing nodes and branching.

The Princeton and Elizabethtown workshops have a morning schedule, with check-in beginning at 8:30 each morning and the events concluding with lunch.

These workshops are brought to farmers free of charge by the Kentucky Soybean Board with support from the United Soybean Board. They're just one way that the checkoff is used to return value to farmers across the state. Registration is required for accurate seating and meal counts. To register by visiting the organization's website, kysoy.org.

- Jan. 17 – Intensive Soybean Management Workshop; Sloan Convention Center, Bowling Green
- Jan. 18 – Commodity Conference Meeting; Sloan Convention Center; Bowling Green
- Feb. 1 – U.K. Wheat Meeting; James E. Bruce Convention Center; Hopkinsville
- Feb. 8 – Ky Crop Health Conference; National Corvette Museum; Bowling Green
- Feb. 8 – Ky Alfalfa & Stored Forage Conference; Warren Co. Extension Office; Bowling Green
- Feb. 20-22 – Ky Turf & Landscape Management Short Course; Hardin Co. Extension Center
- Feb. 27 – Master Logger TV Webinar; Ohio Co. Extension Center 8:00 a.m. till 3:00 p.m.