

Forage Newsletter

Spring 2018



Report from the field

Converting to novel endophyte tall fescue.

K-31 costs the livestock industry one billion dollars per year in performance losses. Realizing just how much production he was losing, Buron Lanier has spent the last five years converting from Kentucky 31 to novel endophyte fescue.

"We were able to take a herd of cows and keep them off Kentucky 31 for a whole cycle. We noticed a tremendous amount of gain in weaned calves at weaning, cow reproduction was up, percentages were up, conception rate was up, live calf weight was up. Everything was a lot better, once we were able to keep the herd completely off Kentucky 31 for a full cycle. We decided to convert this whole farm to novel endophyte tall fescue."

Martin 2 Protek® is now his tall fescue of choice. After trying other novel endophyte tall fescues, **Martin 2 Protek®** has proven to be a rugged transition zone type tall fescue, with excellent animal acceptance.

"You've got to really respect the grazing heights of these novel endophyte fescues, your livestock will definitely consume this more aggressively than you have ever seen fescue consumed before."

Paige Smart
Regional Support Manager
Southeast Agriseeds



with **Protek®** Novel Endophyte



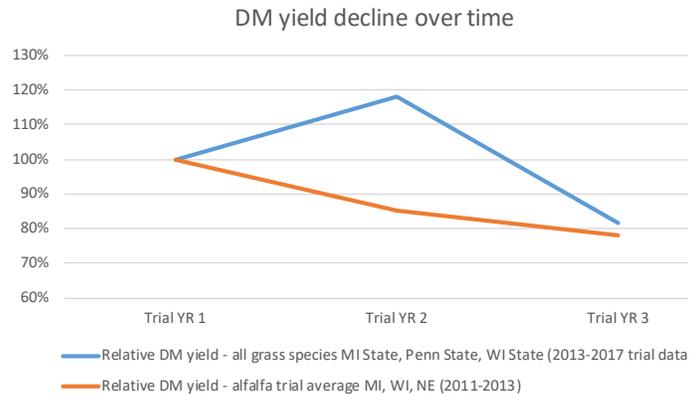
Watch the Full Testimonial: search for Southeast Agriseeds on Youtube

Economics of frost seeding

Frost seeding is a low cost improvement method for forage stands. Seed is broadcasted over [frozen] ground. If properly formulated (more about that later) it can be mixed with fertilizers, avoiding an extra pass over the field.

When does it pay off to frost seed?

In general, alfalfa stands and perennial grass stands are the most productive in their first two production years after the seeding year. Perennial grasses have their highest productivity in the second production year, but by the third production year both alfalfa and grass drop to 80% of the first year's production and will further decline from there.



The above graph is derived from public trial data, using trial averages across perennial grass species and alfalfa. Such production decline means a substantial loss of value, based on average DM yield (grass 5 ton/ac, alfalfa 7 ton/ac in first production year). It illustrates that 'Grasshancing' (overseeding grass or interseeding alfalfa with grass/clover) grassland should be done in the winter prior to the third production year to boost the DM production back to its potential. In an alfalfa stand this is already economical in the winter prior to the second production year.

In the table below, this DM loss is quantified in \$/ac, based on average hay prices. The DM loss represents a substantial value, up to \$300/ac in a second year alfalfa stand.

Value/ac

	Hay/ton	YR 1	YR 2	YR 3
Grass	\$ 130.00	\$793	\$935	\$647
Alfalfa	\$ 160.00	\$1,366	\$1,161	\$1,065

Value/ac decline compared to year one

Grass	\$0	\$143	(\$145)
Alfalfa	\$0	(\$205)	(\$300)

The good news is that with Grasshancing as part of forage production management, these DM yield losses can be mitigated. Frost seeding is the cheapest form of Grasshancing. Since frost seeding often can be combined with a fertilizer application, the cost of Grasshancing is limited to the cost of the seed. The seed cost ranges from approx. \$30/acre for N-Hancer (Red and White clover with Frost Seeding Formula) to \$85/ac for Grasshancer 300 FLC – FSF (Festulolium & clover with Frost Seeding Formula). As the table shows, these cost are far less than the loss of DM value from natural production decline, even if only a one year yield boost is required. For long term maintenance, Grasshancing every other year is sufficient to maintain maximum production. This allows you to amortize the cost of seed over two production years and with the inclusion of clovers, fertilizer rates can be reduced.

Maximize chances for success

Grasshancer FSF and N-Hancer are specially formulated for frost seeding. The Frost Seeding Formula is our Platinum® seed coating that includes:

- water absorbent compound;
- inoculant, when legumes are in the mix;
- fungicide, to protect the seedling during the delayed development due to low temperatures
- starter fertilizer to accelerate early root development

Platinum coating, with the increased seed weight, allows for application with a fertilizer spreader and ensures good seed-soil contact, creating optimum response to the conditions for germination and seedling establishment.

There are many studies done on frost seeding and a simple Google search on 'frost seeding' will give you ample articles with practical tips. The bottom line is that you have to create an environment for the seed to be able to germinate and establish:

Good seed-soil contact – prevent a tall canopy or a lot of debris on the ground

Light – a tall canopy will shade out the soil and inhibit rapid seedling establishment.

Creating optimum conditions together with Grasshancer FSF and N-Hancer seed formulations, gives you the best possible tools to maximize your forage production potential.

The Grasshancer FSF program offers short term and long term solutions and are based on DLF's festulolium varieties. Check our website for more information and download the Grasshancer Product Guide.



For long term maintenance, Grasshancing® every other year is sufficient to maintain maximum production.



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New Year. New Forage Season

The growing season will soon be here, while you can't control the weather or external market pressures, you can influence how well your pastures and fields will perform. A full healthy stand is vital for a profitable year.

Walk your fields. Your observational skills are better at a walking pace, occasionally stoop down or kneel down to get a closer look at the plant cover. There may be damage from harsh winter weather or late grazing on a stock piled pasture. Or there may be a gradual decline in plant health. Research has shown DM yield can drop 25% after the first two years of stand life.

A little bare soil before growth starts may be OK. A lot of soil exposure is not good. You need to assess how quickly the soil surface will be covered with foliage, after growth starts. Low plant density reduces the amount of solar energy captured, and may allow the invasion of weeds and lower productive grasses. Measure live crown coverage per sq ft: if under 70%, Grasshancing® the field will be cost effective.



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