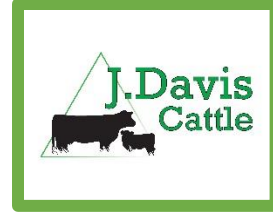


October 25, 2016

**This is our estimate of the cost and return of converting to novel fescue.
Conversion should be a part of an overall business plan.**



JDavisCattle.com

Overall estimated cost to convert:

- Cost considered
 - Glyphosate – spray twice 5 qtrs./A
 - Seed 22 lbs./ A. planted half rate with cross drilling
- Did not include one extra weed spraying after plants come up
- Estimated 35% forage production first 12 months
- Estimated 75% forage production second 12 months
- Used hay for replacing forage
- Prepare & Plant - \$165/A Replacement forage - \$485/A
- Total cost for converting \$650/A

Estimated Return on Investment:

- 50 lbs. improvement in weaning weight
- 10% improvement in calving rate
- Cost of “mitigating KY31 impact” (mowing etc.) avoided
- Years to pay back 5-6 years
- Factors not included but are there
 - Cows are healthier and live longer
 - No summer impact of KY31 so “accumulating” novel fescue in spring can be used all summer
 - Fewer replacement heifers, more heifers to sell
 - Management simplified

Conversion process from KY31 to novel fescue- Planning

- If keeping some pastures in KY31, plan how the KY31 pastures can be grazed so that NO livestock graze a KY31 pasture with seed heads then go to a novel fescue pasture without a 3 days waiting period. This requirement is in place until there is no KY31 in pasture on the farm.
- **Largest cost** – Plan how the farm can operate April of the year planted till April of year 3 after planting without the use full of the acres planted in novel fescue. April year 1 to April year 2 – 20% use. April year 2 till April year 3 - 60% use. April year 3 to April year 4 with only about 80% capacity grazing. Fall of year 4 can have full grazing. Options – reduce number of cows or use supplement and extra hay or rent another pasture. All of this is very weather dependent, the amount and timing of nitrogen, AND the level of protection from grazing given throughout the period especially during the summer.
- Develop or have significant rotational grazing physical structures (fencing and water) and the skills, commitment **and** discipline to use it.
- **Stop here, don't go any further, till you get these capabilities.**
- Need to plan to use pasture for 6 years from date of planting – that is for sure the return on investment time frame. It is probably shorter time than this.
- In January, before planting in September, get a soil sample and add lime and P & K by no later than March to have the pH at 6.2 and P & K within recommended levels.
- Secure a source for a no-till drill to plant with

If you are not willing to do the above things do not waste time reading the rest of this. You will waste your money if you do.

- Late April and in May plan to mow where novel fescue will be planted. Let no seed heads from KY31 be formed. This will take two mowings at least. About May 1 mow 3-5 inches below seed heads. 15-24 days later it will have to be mowed again as seed heads will try to form again. Most likely there will be a third mowing needed in 15-20 days. Also if there are other species of grass like Foxtail Millet or weeds, additional mowings will be needed to keep them from seeding OR you can spray with the glyphosate earlier in the year.
- If plowing or smoothing out rough areas or other areas, do it now to allow weeds to germinate before first glyphosate spray.
- About June 1-15 spray with glyphosate 5 quarts/A if there is common bermuda. The rate can be less if no bermuda grass is present.
- About August 1-15 when bermuda grass has put back out, spray again with glyphosate 5 quarts/A.
- There is a 50% probability a third spraying will be needed with glyphosate. The rate may not be as much if it is only weeds and not bermuda.

Preparing and planting

- Calibrate drill for rate a **planting depth of ¼ inch**
- Plant 22 lbs/A.
- Around December 1 when weeds have germinated well **AND** fescue has at least 4 leaves, spray with Grazon Next to get rid of weeds.
- Put liquid or granular nitrogen on in mid-February to give new grass a jump start for spring. If using litter, put 1 ton on NO LATER THAN mid-January.

Grazing control and follow-up management

- Plants should be kept from seeding by clipping or mowing. This causes the plant to put the energy into the plant roots and “tiller out” making larger plants. Do this until the pasture is mature.
- First year after planting - Control grazing through the spring to keep 4” or more growth. Watch weather predictions and be sure to go into the dryer summer months with 6” or more of growth. Keep 6” of leaf on the plants during the summer
- In late spring or early summer control weeds as necessary.
- Second year and third after planting – control grazing to allow plants to mature. The stand should be mature in year 4 if proper grazing management has been followed and proper fertilizing/weed control has been done