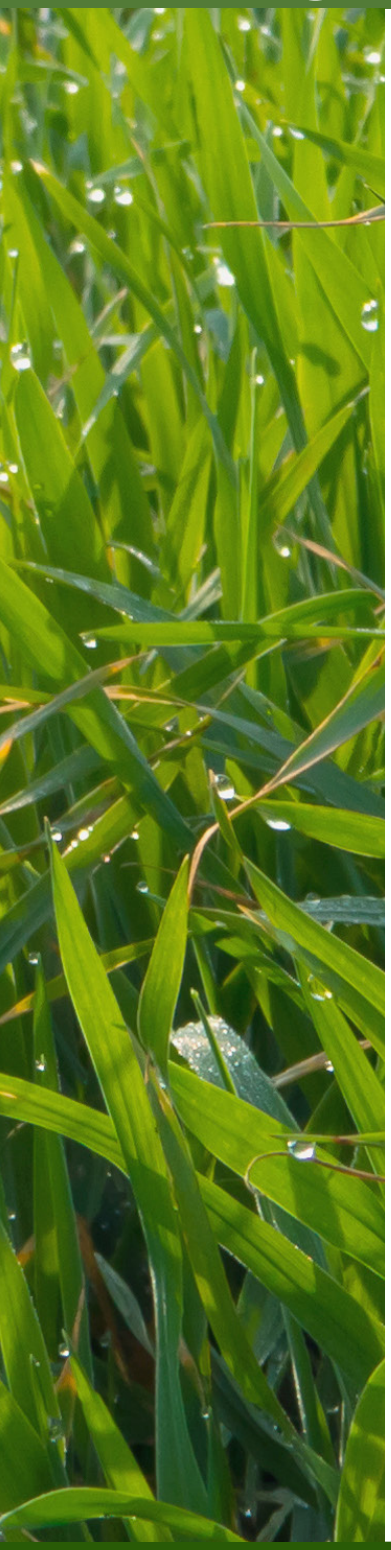
USDA United States Department of Agriculture

Illinois Grazing Manual Fact Sheet

GRAZING MANAGEMENT

Steps for a Year-Round Grazing Management Plan



January

Start grazing stockpiled Tall Fescue. Graze to within 2 inches; strip grazing is the best method. Strip grazing refers to temporarily subdividing a grazing area into subunits with temporary fences so grazing for short periods can be achieved; 1-3 days.

- Inventory feed supplies and use stockpiled forage to best advantage.
- Review grazing system to make any needed changes.
- Look for grazing meetings to attend the next few months and check the Illinois Forage and Grassland Councils web site: www.illinoisforage.org for dates and agendas.

February

Start over seeding legumes into grass stands, (red clover 8#/ac. the first year; 4#/ac. every other year). For best results with red clover the pH level should be above 6.2. On low fertility and/or very poor soils, plant Lespedeza at 15#/ac the first year and 6-8 periodically afterwards as stand thins.

- Annual Korean or Marion can be used.
- Seed amounts are listed as Pure Live Seed, PLS.
- Unroll hay for feeding to spread nutrients on fields.
- Install changes needed in grazing system.
- Start warm-season grass burns when conditions are favorable to control weeds and brush and remove litter.

March

Complete burns on warm-season grasses for weed and brush control and to remove litter, as early as possible.

- Finish stockpiled Tall Fescue.
- Finish over seeding legumes into pastures. Inter seed legumes with no-till or light disking, depending upon ground conditions and your location.
- Fertilize cool season pastures.
- For conversion to new forage seedings, spray 4"-6" growth for vegetative control.
- Apply lime according to soil test. Consider adding magnesium to mineral mixes to off-set possible grass tetany.
- Graze cereal rye, if available until pastures green-up, strip grazing will work well again to allow the rye to re-grow for additional forage resources and grazing.
- Control animal movements if ground conditions are excessively wet, as they can tramp out the forage before the ground hardens.
- Fertilize cool season forages, 30# of N, for early green-up and to jump start a few acres for grazing. N will not need to be applied on many acres because it will stimulate the grass growth and compete with the newer seeded legumes. A 30-40 % legume stand (red clover, alfalfa, Birds-foot trefoil or Lespedeza) can produce up to 100-150 units of N annually for the grasses to use once established. Therefore, no nitrogen will be required for optimum production. The taller the legumes are the more nitrogen they create for the grasses.

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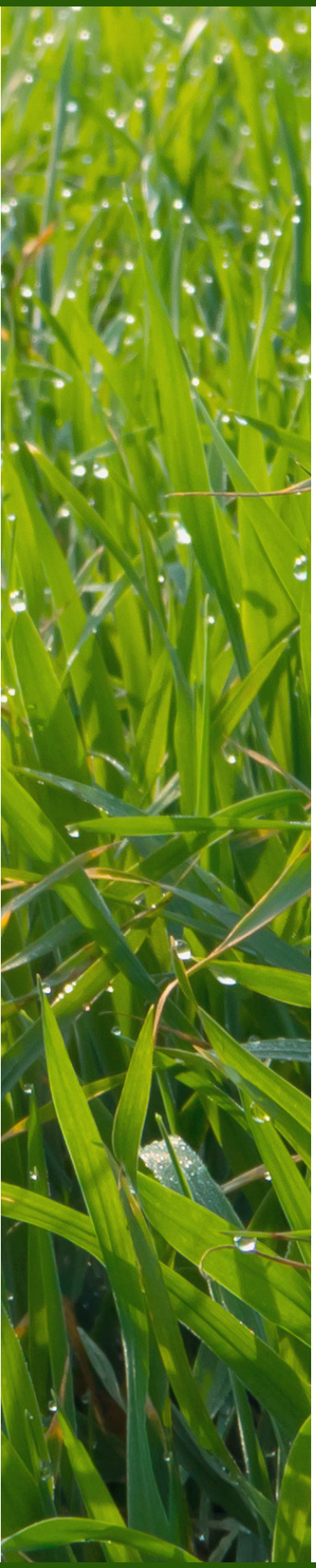

April

- Finish interseeding legumes with no-till or light disking.
- Plant new stands of cool season grasses to reestablish pastures and hay lands.
- Spray to control winter weeds.
- Flash graze grass stands to control canopy competition over new legume seeding and avoid grazing new legume stands until after the 2-leaf stage.
- Begin grazing when forages are about 6 inches tall and move animals when they have grazed forages to a 3-inch stubble height. This will allow the plant to capture sunlight and grow back quicker while also protecting the root system.
- To keep the legumes in the stand, allow a minimum of a 30-day rest period between grazing cycles.

Livestock will need to be rotated quickly in the spring, when the forages are growing faster, to top them off. As the growth slows down your rest period should lengthen. In the spring during faster growth some pastures may need to be skipped and baled to keep them vegetative. By the time the animals get back to the baled pastures in their grazing cycle, the forage should be re-grown.

Always move the animals by the plant height not by the calendar. When Orchard grass and Tall Fescue has been grazed to a 3-inch height, animals should be moved to fresh forage. For the proper grazing heights see table 1 in the NRCS, 528 Prescribed Grazing Standard, electronic Field Office Technical Guide (eFOTG).

- After making hay, allow the forage to grow to 6-8 inches before turning the animals out to graze again.

May

If summer annuals are needed they should be planted.

- Oats and turnips can be planted and grazed in the summer months as well as in the winter.
- Sorghum-Sudan grass, brown mid rib (BMR), and pearl millet are both good choices for summer annuals and grazing needs. Pearl millet does not have prussic acid. The Sorghum-Sudan grass families will have prussic acid after a frost, especially any new tillers. Nitrates can be an issue in a dry year on pearl millet, sorghum and sorghum sudan grass. Always let these summer annual grasses grow to a minimum of 18 inches before grazing. Pearl millet may work better for grazing than Sorghum-Sudan grasses.
- Strip grazing is advised to get the most from your forage production.
- Soil test for fall fertility applications on pastures. Fertilize warm season perennial grasses last half of month.
- Cut hay on cool season grass fields in boot stage and legume fields in 1/10 bloom stage.
- Clip pastures to control seed heads for better quality forages.
- Flash graze or clip grass stands to control canopy competition over new legume seedlings.

June

- Cut warm season grass hay in the boot stage.
- A second cutting of legumes at 1/10 bloom stage.
- Spray or clip to control weeds before seed formation.
- Clip pastures to control seed heads for better forage quality.
- Graze forages as needed in a rotation to fill the forage gap.
- Monitor rest periods on grazing systems as cool season grass growth starts to slow, be aware of minimum grazing heights.

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July

- Cut warm season perennial and annual grass hay in the boot stage.
- Harvest the third cutting of legumes during the 1/10 bloom stage.
- Use slow rotation (longer rest periods) through cool season pasture fields to clean up excess forages.
- Clip or graze excess growth, opening plant crown to sunlight and stimulating next year's shoots.
- Monitor critical heat index days and provide some paddocks with shade for livestock.
- Closely monitor grazing heights and rest periods. This is essential for legume survival.
- Evaluate fields for brush and weed control needs. Inspect fields for invader species as well. Fertilize perennial warm season grasses with 50-80# N for added fall growth.

If small grain is in the rotation, such as wheat or oats, this is a time to graze any legumes that may have been over seeded in them. Red clover works well for stubble hay or for grazing. If stubble is grazed, you may want to clip the straw stubble first to avoid eye irritation on animals. Sometimes the summer annual weeds and grasses can make good forage for a short period of time, like Foxtail, as long as it is vegetative.

August

- Graze or clip pastures and apply 50# of N to allow for Tall Fescue or other forages to stockpile. Clipping will destroy the old growth and allow the plants to start their fall vegetative re-growth. This should be completed at least 75 days ahead of the first killing frost for your location, a longer time period is better. For maximum yield, N should be applied in early to mid-August.
- Fescue is the best forage to stockpile the nutritional value stays with it longer into the winter than any other cool season grass. Any of the grasses can be stockpiled; however, to receive their best nutritional value, they will need to be grazed before the tall fescue.
- If possible, mow waterways throughout the year in crop fields. This will keep them vegetative and, if grazing crop aftermath, the waterways will stockpile and make a good source of forage as well.

During August, you should also be planting or flying on any winter annuals, such as Cereal rye, Oats, Turnips, and Annual Ryegrass, or other winter annuals that you are going to use. If flying on annual forages, over seeding into standing corn should occur as early in the month as possible. In the northern half of Illinois, all flown on annuals should be completed by the 15th of August. If there are small grains in the rotation that does not have legumes in them, those fields will make an excellent site for planting a crop of winter annuals for winter use.

- Leave sufficient plant height on annual legumes, lespedeza, to reseed for the following year.
- Clip brush to weaken the root systems and open canopy for fall forage growth.
- Complete fall seedings as planned or needed, for improved forage base.

June, July and August

During the summer, slow down your rotation and lengthen the rest periods 35-40 days as the cool season grasses begin a summer slump. This is the time of year when you can use warm season perennials or annuals to increase production and forage growth. The perennial warm season grasses are more deeply rooted and, in many cases, will give you as much annual production as cool season forages, however, it all comes during the summer growing season. Native warm season perennials, such as Switch grass, Indian grass, Big Bluestem and E. Gamagrass, should not be grazed until they reach 18-20 inches and then move animals when grazed down to 8-10 inches.

- Begin grazing the annuals once they are 18-24 inches tall.
- Strip grazing is most efficient and allows the plants to rest and re-grow.
- Legumes tend to grow better than the cool season grasses in the summer.
- Nitrates can be a concern in dry years on pearl millet and Sorghum-Sudan grass.

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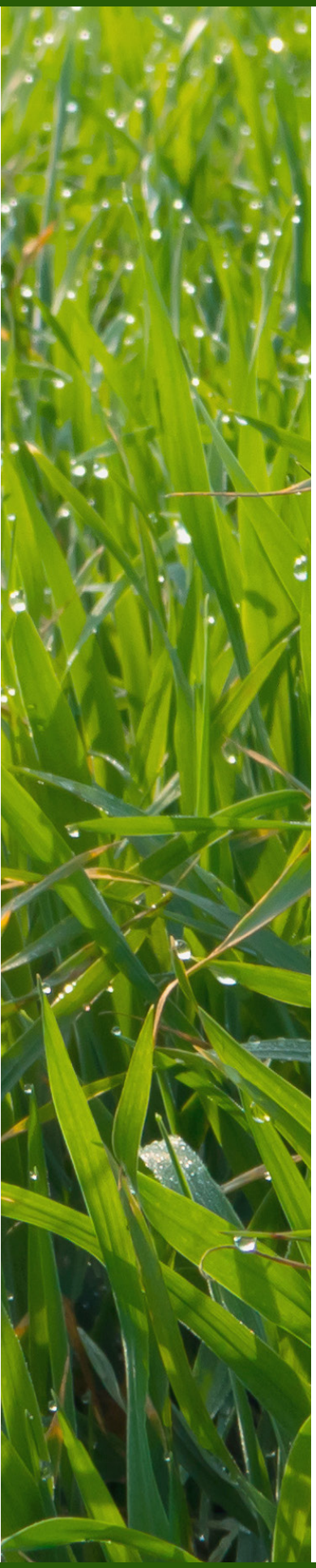

- Always wait until the annual plants are 18 inches tall before starting to graze.
- If a drought occurs/persists refer to the fact sheet on drought management or place livestock in a dry lot for feeding.

September

If you have warm season grasses, legumes or other forages, other than fescue and orchard grass, they should be rested from mid-September to mid-October to allow the plant to store nutrient reserves back down into its roots for the winter. If silage is cropped, this is a good time to drill or no-till in some additional winter annuals.

- Rotate grazing on fall pastures while stockpiling growth on reserve fields for winter needs.
- Graze Ky31 fescue heavily to weaken stands for over seeding with legumes next winter.
- Complete any fall forage plantings by the regionally appropriate seeding dates.
- Refer to seeding dates and regional map in Establishment/Renovation section.
- Inventory winter feed supplies.
- Plant additional annuals, purchase hay or stockpile more Tall Fescue, if necessary. The forage that you are stockpiling may be the best quality that will be produced all year.

October

Once corn is harvested, allow the animals to graze stalks first to allow the forages and pasture to rest while stockpiling. Strip grazing or rotationally grazing stalks is best since it restricts the animal movements to only the area of grazing and not trampling the entire field. This is assuming that no winter annuals are growing in the stalks. The winter annuals that are growing in the stalks should have 45-60 days of sun light to grow for optimum yields before the animals graze them.

- Soil test for next years' fertility needs and for spring seeding.
- Evaluate weed pressure, such as musk thistle, and apply needed herbicides to fields with severe infestations.
- Start spraying musk thistle while in the rosette stage for best control.
- Continue to stockpile fescue since the longer it grows the more forage dry matter you will have to graze in the winter.

November

- Spray to kill Tall Fescue for conversion to other forages.
- Spray musk thistle in rosette stage, if not already completed.
- Test forages and hay before feeding begins to improve winter feeding efficiency.
- Separate animals by nutritional needs, lactating cows and stockers need the best forages.
- Prepare water systems for freezing temperatures.
- Start planning ahead for next year.

Identify the weak links in the system. Ask yourself: Can I change anything to grow better forages longer? What will make my system easier to manage? Check with the Natural Resources Conservation Service, Farm Service Agency and Soil and Water Districts for available cost share assistance on forage program improvements.

- Start grazing the winter annuals and corn stalks, depending upon the growth, or feed hay to allow for more time and growth potential on the winter annuals.
- The turnips will stay green until the temperature gets down to 15°F. Once the temperature gets that low, the turnip leaves will be burnt and frozen. The animals will still eat them, but their value will drop. The bulbs will be grazed until the ground is frozen or too muddy. Turnips should be consumed in the fall and early winter as they will not over winter.
- Oats will freeze once the temperature reaches 26 degrees.

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December

Once all of the winter annuals and stalks are grazed, begin feeding hay stored outside first before the quality declines. The test results on endophyte in the Tall Fescue, according to the University of Missouri (U of MO), the later into the winter the fescue is used, the lower the endophyte levels. Also, the freezing temperatures will help break down the waxy cuticle of the leaves and the animals will prefer it better. According to U of MO research, it is best to feed your stockpiled Tall Fescue starting in January. Use the Tall Fescue wisely and it should be adequate for beef cattle until late February or early March.

- Strips graze the forages to make them last longer into the winter and reduce the loss. Research shows the endophyte levels will fluctuate from year to year, even in stockpiled tall fescue, K31. To avoid this, you can plant friendly endophyte or endophyte free tall fescues.
- The problem with this is controlling the seed bank of infected seed, already on the ground, that will come back in your old pastures.
- If you are planting friendly or endophyte free seed, try to plant into cropland that will allow your stand to remain purer for a longer time. For best results, always follow the suggested seeding dates for your area when planting.

Grazing Management is as much an Art as it is a Science! In applying any plan of action you must constantly evaluate where you are and your outcomes. Therefore, these steps will need to be modified according to rainfall and weather conditions as they change with each season. This is a guide, or road map, to get from where you are to where you want to be and should be used as such!

References

Soil & Pasture Health Guide for Missouri; Illinois Agronomy Handbook; and NRSC Field Office Technical Guide, Prescribed Grazing Std 528.

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Natural Resources Conservation Service

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