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## FORAGE SORGHUM GROWER TIPS

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**Forage Sorghum for Crop Rotation** - Forage sorghum can be a good crop to use in rotations to break insect and disease cycles compared to continuous corn. For example, corn rootworm larvae cannot survive on sorghum roots, so sorghum after corn can reduce the need for insecticide. Corn after sorghum can sometimes still be a problem because rootworm adults can lay eggs in sorghum, especially if sorghum is flowering after corn silking. Scout for this situation before going back to corn.

**Herbicide Choices** - Sudangrass, forage sorghum, and sorghum-sudan hybrids will tolerate moderate levels of atrazine; and safened seed is required if using Dual or Bicep-like herbicides containing s-metolachlor. The full list is attached for herbicide choices from the UNL herbicide guide. <http://www.ianrpubs.unl.edu/epublic/live/ec130/build/ec130%20weed%20control%20by%20crop.pdf> Keep in mind there are fewer choices labeled for herbicide use in forage sorghum compared to corn on pre- and post-application strategies.

**Seeding Rate** - Use 6 to 12 pounds per acre for forage sorghum. Use the lower rates in dry areas and higher rates in humid and irrigated areas. Higher seeding rates will help produce finer stems, which is often desirable for pasture and hay. The use of 15-inch rows may help standability because stems may get thicker when plant-to-plant competition is reduced.

**Nitrogen Recommendation** - Our recommendations are in <http://www.ianrpubs.unl.edu/epublic/live/ec155/build/ec155-12.pdf>. Fertilize according to your yield goal which is also tied to moisture in the profile at seeding time. It is important to check soil for residual nitrogen before fertilizing to further fine tune nitrogen rate.

**Seeding Timing** - Soils should be above 60°F when sorghum is planted. Seedings made in late May and early June usually give good results in Nebraska. For Southeast Nebraska and southern tier counties we can push this up a couple weeks, however, the first week of May can be very risky. May 15<sup>th</sup> plantings are generally ok if seed is fungicide treated.

**No-Till Planting** - No-till planting techniques can save water, increase forage yield on rain-fed land, save labor, be beneficial to soil health and provide residue cover from the previous crop to protect the soil surface and moderate soil temperatures in the summer to the benefit of microbial activity. Make sure your drill or planter has enough weight and down pressure to cut and handle the residue and get the seed to the proper seeding depth of 1 to 1 1/2 inches deep in the soil.

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**Fall Cover Crop** - Because forage sorghum is planted relatively late during the spring planting season, cover crops such as cereal rye can be seeded the previous fall and be used for early spring grazing, hay, or greenchop before planting sorghum. Pay close attention to the timing of spring cover crop harvest, though to avoid excessive use of soil moisture and to plant sorghum on a timely basis.

**Feed Value of Forage Sorghum for Silage** - For silage use, choose forage sorghum varieties and hybrids with high grain production for best tonnage and feed value. As silage, forage sorghums usually yield more dry matter per acre than dryland corn, and will yield similarly to corn under irrigation. However, yields of TDN (total digestible nutrients) per acre are usually lower from forage sorghums than from corn. Generally, forage sorghum silage has 75 to 85 percent of the energy value of corn silage per unit of dry matter, while other summer annual grasses have 60 to 80 percent of the value of corn silage.

**Brown Mid Rib Trait or BMR** - Strongly consider using sorghums with the BMR trait, especially for growing calves or any cattle with higher nutrient demands. Newer cultivars have overcome most, but not all, increased lodging risk. Work with a reputable seed dealer. Use a good forage sorghum grain producer, bred for silage.

**Cautions (After Cutting the Forage Sorghum for Silage)** - Grazing of forage sorghums is not recommended. They usually contain much higher levels of prussic acid risk than other summer annual grasses and can be dangerous to graze even when plants are completely headed, especially when young shoots are present. Grazing regrowth or young plants before a killing freeze after silage harvest would be a very high risk or dangerous situation with cattle.

**Forage Sorghum Silage Tips** - Forage sorghums are usually tall growing and mature late in the growing season. Often called "cane," forage sorghums have sweet and juicy stems. Many have relatively small grain heads. Choosing 8-10 foot hybrids with a good grain head eliminates these problems, as grain matures and dries enough that silage can be cut in September in a timely manner.

Moisture content at time of ensiling is the most important factor influencing fermentation. The moisture content should be 70 percent or less for good preservation in upright silos. Silage between 70 and 75 percent moisture can be stored in trench or bunker silos. Silage inoculants can pay off especially well when moisture is in upper range.

Some forage sorghums contain over 80% moisture throughout the growing season. Shorter hybrids (6 to 8 foot) with relatively high grain potential are more likely to dry down to proper ensiling moistures in September as grain matures. For wetter sorghums, several options are available to reduce the moisture content to more desirable levels. Sometimes the crop can be cut, windrowed, and field wilted to the correct moisture content. This can be difficult, though, because the crop dries slowly and regrows rapidly when soil moisture is adequate. Forage sorghum also can be cut soon after a freeze causes plants to begin drying while standing in the field. Timing harvest after a freeze can be challenging, however, because the severity of the freeze will influence how rapidly the standing crop dries. The risk of the crop lodging also increases as the standing crop dries. Dry feed can be added to high-moisture forage to reduce the overall moisture level. When using this practice of mixing, mix well when trying to adjust moisture with another feedstuff.

**Pricing Forage Sorghum** - We suggest pricing sorghum silages in relation to corn silage of the same moisture content. Forage sorghums with fairly high grain yield in relation to forage (sorgo types) usually have 80 to 90 percent the value of corn silage per unit of dry matter.