



GROWING SUMMER ANNUAL FORAGES

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Annual forages are an excellent tool for bridging the production gaps left by perennial forages systems. The most common grasses, legumes, and forbs grown for annual forage production in Georgia are detailed in Table 1. Several other annual forages are available but are not broadly recommended for use in Georgia. These species can be expensive or difficult to establish, provide relatively low yields, and/or are not tolerant to grazing.

Planting guidelines

Warm season forages are planted when soil temperatures are sustained $>65^{\circ}\text{F}$ at 2 inches deep. Plantings in the Mountains can occur in May to June. Plantings in the Piedmont and Coastal Plains can occur in April to June. Planting outside these windows is possible but will likely result in lower seasonal production. Compare the expense of the planting the seed with the anticipated yield or production. The yield achieved in late plantings may not be a good return on your investment. Late planted warm season annuals are more prone to severe drought stress since irrigation is usually not available. This will reduce yield and increase the likelihood of nitrates and prussic acid poisoning in select crops.

These forages grow much faster than perennials, so consider staggering your planting dates to extend the summer forage supply. Two plantings made approximately four weeks apart can provide good quality forage throughout the summer.

Planting methods

Below is general guidance for seedbed preparation timelines for both planting no-till and into a conventional seedbed. If there is risk of soil erosion, then use no-till planting methods. Also, the no-till planting method can be used as a smother crop in tall fescue renovation plans. If there is minimal risk of soil erosion or no perennial sod in place, then a conventional seedbed may be used. The Web Soil Survey is an excellent resource available for free online to learn more about the soil type, topography, slope, etc. of your farm.



Table 1. General planting information for species used for warm season annual forage grasses.

Species	Planting rate (pounds/acre) ¹		Planting depth (inches)
	Pure stand	Mixture	
Crabgrass	3-5	2-3	¼
Pearl millet	12-15	8-10	½ - 1
Sorghum	6-8	4-5	½ - 1
Sudangrass	10-15	7-10	½ - 1
Sorghum x sudangrass	15-20	10-13	½ - 1

Fertilization guidelines

Apply 40–60 pounds of nitrogen per acre soon after the annual grasses emerge and additional applications of 50–60 pounds of nitrogen per acre for each month during the summer grazing season. Apply phosphorous and potassium based on soil test recommendations after emergence.

If used for hay or baleage, apply 40 pounds of nitrogen per acre at planting, 60 lbs pounds of nitrogen per acre after establishment, and 60 pounds of nitrogen per acre after each harvest except the last. If more than one harvest is anticipated, increase the phosphorous and potassium rates listed on your soil test by 25%.

Grazing recommendations

Regardless of species, rotational grazing is strongly recommended for use in annual forage fields. Initiate grazing once forage species planted have reached approximately 10–12 inches. For best results, maintain at least 3–4 inches of stubble height (residual forage) during the growing season. Plants may become stemmy from selective grazing. Use a tractor-mounted rotary mower to mechanically clip them to a height of 10–12 inches and fertilize with nitrogen. With good grazing management, clipping may not be necessary.

Many forages have the potential to accumulate nitrates but millets, sorghums, and sudangrasses are especially prone to this issue. Splitting nitrogen applications across the season and avoiding grazing during drought conditions will greatly reduce the likelihood of

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nitrate toxicity. Wait at least 7 days after a drought ending rain before allowing animals to graze the material. For more information on nitrate toxicity, please see UGA Circular C915: Nitrate Toxicity.

All sorghums or sudangrasses have the potential to cause prussic acid poisoning when the plants are stressed. Avoid grazing drought or frost stressed plants to prevent prussic acid poisoning. Wait at least 7 days after a drought ending rain or the frost event before allowing animals to graze the material.

Pest management recommendations

Although the options are limited for weed control in annual forages, many annuals are typically fast growing and will outcompete weed species. Insect damage is especially problematic on summer annual grasses however, and all pesticide options and treatment thresholds for insect pressure are presented in the Georgia Pest Management Handbook's section on Temporary Grazing (Special Bulletin 28–31).



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