



accumulate until November or December. They require soils with good drainage and with pH ranging from 5.8 to 6.5. They can be planted by drilling into a prepared seedbed at a seeding rate of 2 to 4 lbs/ac and no more than ½ inch deep. They can also be broadcast and incorporated into tilled seedbeds by cultipacking. Brassica stands can also be established by no-till planting in grass sod that is suppressed with paraquat herbicide. Apply 50 to 75 lb N/ac after germination to stimulate growth and ground cover. If multiple grazing are expected, apply an additional 50 lb N/ac between 60 and 80 days after seeding. Potassium and phosphorous should be applied based on soil testing recommendations.

The grazing management of brassicas is very important to optimize their true potential. The more efficient way to utilize these forage crops is by strip grazing small areas at a time. This approach will reduce trampling and waste. For a grazing situation, the average carrying capacity for a good brassica stand should be 800 to 1,000 lb of beef/acre. While grazing, at least 4 to 8 inches of stubble should be left after grazing to promote rapid recovery and growth for multiple grazing periods. Grazing close to the ground should occur only in the final grazing period.

While the digestibility of brassicas can be higher than 90%, grazing brassicas alone might not be recommended. This high digestibility means that the fiber content of the brassicas is too low to maintain the microbial population of the rumen. To reduce variation in animal performance, it is recommended to allow the animals to become adjusted to brassicas gradually by restricting their brassica intake and to supply dry hay to animals grazing brassicas.

Some disorders have been identified when grazing brassicas that are not managed properly. They include bloat (digestive disorder characterized by an accumulation of gases, primarily carbon dioxide and methane), atypical pneumonia (associated with a high rumen pH > 6.0), nitrate poisoning (excessive amount of *nitrate in the forage*), hemolytic anemia (immune-mediated *hemolytic* disease in new born, but very rare), hypothyroidism (iodine deficiency), and polioencephalomalacia (softening of the cerebrocortical grey matter due to carbohydrate depletion). To avoid development of any of these disorders while grazing, brassicas should not constitute more than 75% of the animal's diet and either supplement dry hay while grazing brassicas or allow the livestock access to grass pastures while grazing any type of brassicas. **The most important rule is not to turn hungry animals that are not adapted to brassicas into a brassica pasture.**



Figure 2. Brassica biomass production for grazing. Forage production (above- and below-ground) changes with species.

**Summary** – The growth of summer perennial grasses can be adversely affected in late fall by cooler weather and shorted days. This is not the case with tall fescue and brassica crops in Mississippi. These species can provide a valuable feed supply for extending the grazing season. This effectively extends the grazing season by 60 to 80 days, thus reducing the need for stored feeds. Adequate nitrogen fertilization is essential for maximizing stockpiled forage in the fall and make the brassicas competitive. While stockpiling warm-season perennial grasses such as bermudagrass or bahiagrass, it is recommended to graze the bermudagrass first to avoid leaf loss and forage quality. Bahiagrass seems to maintain its leaf biomass a little longer. Remember that when utilizing stockpiled forage or brassicas, strip grazing is the most efficient way to increase the utilization of the forage biomass. Assuming proper stocking rates, good grazing management and favorable weather conditions, stockpiled forages and brassicas can potentially reduce hay feeding. If a livestock producer utilize these resources (stockpiled forage and brassicas) along with annual ryegrass, they can close the gap of feed supplementation and have more than 300 days of grazing.

### Upcoming Events

October 27, 2016—Cattlemen College, Hattiesburg, MS

October 28, 2016—Cattlemen College, Batesville, MS

For detailed information related to upcoming forage events please visit:

<http://forages.pss.msstate.edu/events.html>

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