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Turnips, Not Just for The Garden

Brassicas is the name given to some high yielding, fast growing, high quality crops such as kale, rape, swedes, and turnips. Some of these names may sound familiar and typically they may be associated with the garden, but brassicas can be a very good forage crop for livestock if harvested before heading. Often brassicas are included in a cover crop mix, which can bring multiple benefits to producers. Turnips have often been the forage crop of choice in our area.

The above ground growth of turnips will normally run in the 20 to 25 percent crude protein range and typically 65 to 85 percent TDN. The roots also provide some nutrition at 10 to 14 percent crude protein and 80 to 85 percent digestibility. The other major benefit in quality is that the plant will not lignify nearly as quickly as grasses and legumes at temperatures over 90 degrees. This is what keeps the digestibility levels high.

Grazing can be provided most anytime in the late summer and fall, with a big advantage being use well after freezing temperatures. Turnips grow fast and can be grazed as early as 70 days post planting. Typically, the maximum production peaks three months after planting. Turnips can be seeded any time after the soil temperature reaches 50 degrees until 70 days prior to a killing frost. The other advantage is that they are a fairly low cost, low maintenance crop.

All brassicas require good soil drainage and pH in the range of 5.3 to 6.8. Seed bed preparation can range from clean till to no-till in wheat stubble. Typical seeding rate ranges from 1.5 to 2 pounds per acre with turnips, drilled in 6- or 8-inch rows, no more than 0.5 inches deep. However, a broadcast seeding will also work to establish turnips.

Planting date studies show that a mid to late July planting will yield the most tonnage from turnips. Studies have also shown favorable results mixing turnips with oats in a spring or fall planting. The key component for establishment is rainfall, of which 8 inches will be required over the growing season. Nitrogen demand can be somewhat higher than some other forage crops, a range of 60 to 120 lbs, but 75 lbs of nitrogen per acre should be adequate in most years. Phosphorus and potassium needs will be similar to that of small grain crops. As a final note, it is best to not grow brassicas in the same field more than two consecutive years due to disease.

Brassica crops can cause some animal health disorders if not grazed properly. To avoid problems, introduce animals to the pastures slowly (over 3 or 4 days) and avoid abrupt changes in diet. In other words, don't take them directly from dry pasture to lush green turnips, and never turn out hungry animals. Brassicas should be thought of as a concentrate feed and because of this they should constitute no more than 75 percent of an animal's diet. Grazing typically can begin when the forage is 12 inches tall.

For best results, utilize short grazing intervals and rotate between dry grass/hay and the turnips, the plants will regrow if given time to do so. A normal system would be to graze tops only the first rotation and then tops and bottoms at a later time, if a waiting interval is followed. Digging of the bulbs or roots is generally not a practice that is needed to be done, as livestock remove some and the remaining bulbs create macro pores in the soil as they decay. As with most plants rotational grazing works very well to maximize the forage resource.

Some downfalls of turnips are being high in water content (90 percent) and digestibility, can increase the rate of passage making for loose stools and the potential of choking is also a concern on bulbs. If there is a need for some alternative grazing, try giving brassicas a try. For more information on brassica crops, view the K-State Forage Facts publication [FORA26 Brassicas and Chicory for Forage](#)