Plan Ahead With Annual Forages

DR. MARVIN H. HALL
Extension Forage Specialist
Penn State

Forage shortages most often occur during the summer when dry conditions reduce productivity or in the early winter when cool temperatures restrict plant growth of perennial forage crops.

By planning ahead for periods of low production from the perennial species, annual crops can be planted which will provide forage during these periods.

In the event that the summer is not dry and perennial forages maintain high levels of production, then the summer annual crops will not necessarily be lifesavers but can be utilized along with the perennial crops as a source of forage. However, it is important to remember that annual crops need to be a planned component of the forage system and not a reaction after the perennial crops begin to decline in production.

While no forage species could have maintained high production during last summer's dry weather, some annual forage species could have been more productive than our traditional perennial forage crops — if they had been established before the dry weather. The decision to plant an annual crop as insurance against dry weather should be an economical one.

In a year such as last, the value of any forage was high and the economic benefits of annual forage crop production were obvious. However, in a wet summer, the economics of production are not necessarily negative since the crop can still be utilized as a forage for livestock consumption. The annual crop simply removes some of the risks associated with farming in the unpredictable weather of Pennsylvania.

Table 1 Characteristics and seeding rate of brassica forage crops

Crop	Plant part consumed	Seeding to harvest	Regrows after harvest	Seeding rate
Rape	herbage	90-100 d	yes	3.5 - 4 lb/acre
Kale	herbage	150-180 d	no*	3 5 - 4 lb/acre
Turnip	herbage and root	90-100 d	yes	1.5 - 2 lb/acre
Swede	herbage and root	150-180 d	no	1.5 - 2 lb/acre

* An exception is the stemless cultivar Premier' which will regrow after harvest

Where Do Annual Forage Crops Fit?

Summer annual grasses, including sorghum, sudangrass, sorghum-sudan hybrids, and millet, grow best at relatively high temperatures (80° F) and maintain production under conditions of limited moisture. They should be planted from two weeks after corn until the end of June.

Seedings may be made as late as July 15 in emergency situations, but yields will be reduced because of limited moisture and cool temperatures during the fall. Summer-annual grass harvest for silage should occur when the grasses are in the medium to hard dough stage. The best time to graze these grasses is when they are between 18 and 30 inches tall.

Contact your county extension office to obtain agronomy facts 23, "Summer-Annual Grasses For Supplemental Or Emergency Forage" for more detailed information about use of summer-annual grasses in your system.

Brassicas, including rape, kale, turnip and swede, have different growth characteristics and can be seeded in the spring or late summer to provide a range of utilization periods. Rape and turnip can usually be grazed about 90 days after planting while kale and swede normally require about 150 days before harvesting (Table 1).

Small grains such as wheat, barley, rye, and triticale should be planted from mid-August to early September and can be utilized for grazing from October through December and again in early spring. If the small grain is to harvested for silage, grazing should be discontinued when the plants begin upright growth in the spring.

The key to success with annual forage crops is to plan ahead. By planning ahead and establishing a small portion of your forage acreage to annual forages, you provide insurance against inclement weather with minimal net cost even if the weather turn out to be ideal for perennial forage crop production.