Native warm-season grasses have the potential to provide a large supply of high quality forage during the hot and often dry midsummer months of June, July, and August. Switchgrass (*Panicum virgatum* L.) and big bluestem (*Andropogon gerardii* Vitman) were two major components of the original tall-grass prairie in North America (Weaver, 1968). Although present throughout most of the USA except the far western states, these two grasses were most prominent in this tall-grass prairie region, with big bluestem accounting for up to 80% of the vegetation in some sites. Both have been seeded for summer pasture and hay use, but switchgrass seems to have been more popular during recent years because of lower seed cost and smooth seed characteristics that makes seeding and uniform stand establishment much easier to accomplish.

Roundtree et al. (1974) reported that 75 to 80% of switchgrass dry matter yield is produced from June through August in Missouri, compared with only 40 to 45% of yield for tall fescue (*Festuca arundinacea* Schreb.). This is a time when many cool-season grasses are normally less productive. During this period, switchgrass can produce greater yields than most cool-season grasses (Sharp & Gates, 1986), and greater average daily gains in beef steers (*Bos taurus*) (Wedin & Fruehling, 1977, 1980).

**NITROGEN REQUIREMENT**

It is generally recognized that cool-season forage grasses have a relatively high N requirement for high yields of quality forage. Warm-season grasses also require relatively large amounts of N for high yields of high-quality forage (Hall et al., 1982; George & Hall, 1983; Smith, 1979). In Iowa, Smith (1981) reported forage yield increases of 95, 148, 187, and 216% when switchgrass was fertilized with 75, 150, 225, and 300 kg N ha⁻¹, respectively, compared with 0 N.

Forage legumes could provide N for warm-season grasses if compatible legumes could be identified that establish and persist in mixed swards, yet not be too competitive with the grass component. These legumes could provide symbiotic N for associated warm-season grasses, improve forage quality, and extend the grazing season.