

## 9. MORE INTERESTING AND ATTRACTIVE PASTURES

Clovers are more colorful and attractive than grasses, especially when blooming. They make pastures more attractive to humans and, given their palatability, to grazing animals as well.

## 10. INCREASED PROFIT

The use of clovers can have an enormous impact on the economics of pasturing grazing animals. Nutrition is generally recognized as the primary limiting factor on most livestock farms, and legumes usually provide higher nutrition levels than grasses. Better nutrition means more milk production, higher weaning weights and increased likelihood of high reproductive efficiency. These factors obviously impact gross income.

Clovers also favor profitability by lowering nitrogen fertilizer expense, which typically accounts for 20 to 50% of the cost of producing forage from grasses (and nitrogen prices have generally been on the increase since the early 1970's). Clover seed usually costs \$10 to \$25 per acre. Other associated with establishing clovers depend on the site, situation and method of seeding, but are typically less than the seed costs. Often the value of nitrogen fixed by clovers will alone more than offset the cost of their establishment.

Thus, the use of clovers in forage programs has dual benefits. When clovers are present, animal performance goes up while expenses go down. Clovers are truly sustainable plants. Research results, farmer experience and many demonstrations have clearly shown clovers to be agronomically sound, environmentally friendly and economically advantageous.

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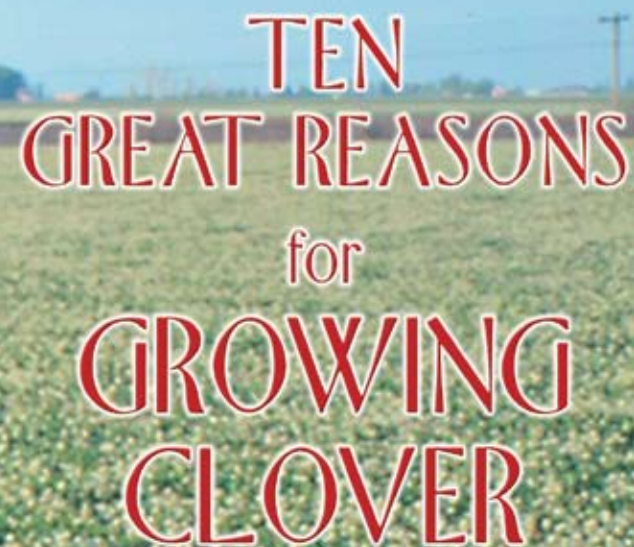
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# TEN GREAT REASONS for GROWING CLOVER



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*Clovers have long been viewed as being special and beneficial plants, but recently incentives for using them have further increased.*

## 1. LOWER NITROGEN FERTILIZER

Like most legumes, clovers have the ability to obtain nitrogen from the atmosphere and “fix” it in nodules on the roots. The amount of nitrogen fixed varies depending on species, stand density, fertility, weather and the extent to which the clover has been defoliated. However, numerous studies have shown that annual clovers, ladino or white clover, and red clover often fix 60 to 150, 100 to 150, and 150 to 200 lb./acre./year, respectively. The value of nitrogen fixed by a clover stand in a single year is often several times as much as the cost of planting the clover.

## 2. BETTER FORAGE QUALITY

It has long been recognized that the forage quality of legumes, included clovers, is generally higher than that of most forage grasses. Legumes are usually higher in crude protein, digestibility, and many minerals and vitamins, and are digested more rapidly than grasses. The result is better animal performance.

## 3. BETTER DISTRIBUTION OF GROWTH

The introduction of clovers into grass pastures often extends the grazing season as compared to grass alone. Red clover is especially likely to provide additional summer production when grown with cool season perennial grasses. Addition of cool season annual legumes to bermudagrass or other warm season perennial grasses permits production of quality feed during winter and early spring when pastures would otherwise be unproductive. Several clovers can extend the grazing season when grown on prepared seedbeds with annual grasses.

## 4. INCREASED FORAGE YIELD

The total yield of forage per acre from grass/legume mixtures is usually increased over grass alone. For example, studies conducted over many years at the University of Kentucky have shown that red clover grown with tall fescue produces more total yield than tall fescue fertilized with 180 lb/N/acre.

## 5. REDUCED RISK

Legumes complement grasses in many ways, and having a mixed sward of grass and clovers constitutes a lower risk situation than having a pure grass sward. For example, a disease or insect pest is less likely to devastate a mixed forage stand.

## 6. BENEFITS IN CROP ROTATION

In addition to furnishing nitrogen for succeeding crops, clovers improve soil characteristics by improving soil tilth. They also create root channels, which benefit subsequent crops grown in rotation with clovers or clover/grass mixtures.

## 7. REDUCED ANIMAL TOXICITIES

Clovers can play an important role in offsetting various livestock disorders caused by forage grasses. In a recent survey in two southern states, “growing legumes with tall fescue” was found to be the number one strategy used by beef cow-calf producers to cope with the endophyte of tall fescue. Grass tetany is another animal disorder reduced or eliminated by the presence of clovers in animals’ diets.

## 8. ENVIRONMENTAL ACCEPTABILITY

Because of their symbiotic relationship with *Rhizobium* bacteria, clovers and other legumes provide homegrown slow release nitrogen, which is more environmentally friendly than commercial nitrogen. They furnish pollen and nectar for honeybees and tend to increase populations of beneficial predatory insects. Clovers also provide food for wildlife including deer, rabbits and game birds.