Indiana has one million acres of permanent pasture. The productive potential on many of these acres has not been reached. There are many factors that play a role in pasture productivity. The grazier can control many factors and some cannot be controlled. Considerable improvement could be made in the state’s permanent pasture, if sound management practices were implemented. Below are some considerations that each grazier should evaluate as good pasture management decisions are made.

**Do not over graze:** When pastures are continually overgrazed, plants are weakened and many productive species die, and unproductive ones replace them. Leaf area is reduced and the growth rate is slow. Water runoff is increased; soil temperatures increases; and overall pasture quality and quantity decrease.

**Do not under graze:** When pastures are under grazed, forage will accumulate and not be used. In order for pasture production to be profitable, the forage produced must be utilized. Under grazing also allows briars and woody species to get established.

**Apply lime when needed:** Lime provides very important nutrients and also corrects soil acidity. Acid soils can limit plant growth and vigor, especially for legumes. Lime needs are determined by soil test.

**Fertilize wisely:** Most permanent pastures would benefit from a soil test and subsequent fertilizer applications. Nitrogen fertilizer should be used sparingly. Nitrogen fertilizer increases yields for only a short time and then must be repeated, if yields are to be maintained. Nitrogen fertilizer tends to decrease legume content, because grass growth shades the legumes and reduces their vigor.

**Encourage legumes:** Legumes provide nitrogen for grasses, increase yields, and greatly improve pasture quality. Legumes require high lime fertilizer levels. If legumes are to be maintained, they must be grazed properly. Some legumes can furnish quality grazing during the summer months, when cool season grasses are less productive.

**Control undesirable plants:** In general, the plants that are growing in a permanent pasture are the ones that are suited to the conditions that exist in the pasture. To change the plant species, the environment needs to be changed. This can be accomplished by changing the grazing system, adding lime or
fertilizer, or by combining both of them. Livestock will eat some weeds, when they are young and vegetative. Good grazing management will eliminate the need for clipping in most cases.

**Species selection:** Forage species have "personality’ traits. These traits must be matched with the soil characteristics and pasture usage. Some legumes have specific soil drainage, lime and fertility preferences. Be sure to consider these when seeding a new pasture.

**Water supply:** Research and observation have verified that livestock prefer to have their water supply within 600 feet of the grazing area. Animal performance and uniformity of grazing are enhanced because they spend less time and energy walking to the water supply. Water quality should be a high priority. The water system becomes a focal point as the number of paddocks increase. Water lines may be left on top of the ground until the paddock design is finalized.

**Land resource:** Look at your pasture areas from different locations. Where are the slopes and which direction do they face? What slopes have the best plant growth? Forage species differ in their preference of north, south, east, or west slope. Observe which species are growing well in each situation.