Kentucky is a FORAGE state with approximately one-half of the total farmland occupied by forage grasses and legumes. We are very fortunate that we can grow many different species successfully. We have the natural resources and climate to grow most cool-season and warm-season species. We are fortunate that we usually have a relatively long growing season. We are usually blessed with rain, especially in spring (2007 was a major exception) with our annual rainfall approximately fifty inches. We are also fortunate that we have some of the absolute best forage-livestock producers in the World.

FORAGES ROLE IN KENTUCKY AGRICULTURE

Successful livestock programs are dependent on forage programs which supply large quantities of adequate quality, homegrown feed. A major percentage of the feed units for beef (83%) and dairy (61%) cattle come from forages. In addition, forages supply an estimated 91%, 72%, 15% and 99% of the nutrients consumed by sheep and goats, horses, swine and ruminant wildlife,
respectively. These values can be put in perspective when we consider that 68% of Kentucky's Agricultural Cash Receipts are from livestock and livestock products (Figure 1). Cash hay accounts for approximately 32% of the total crop value (Figure 2). Add to this the value and important contribution forages play in soil conservation, seed production, aesthetics, etc.

![Figure 2. Distribution of Crop](image)


**KENTUCKY’S FORAGE BASE**

We are very fortunate that we can grow many species successfully. We can grow both cool-season and warm-season species. We are fortunate that we usually have a relatively long growing season and a fairly mild winter.

Kentucky's forage base is composed of cool-season grasses and legumes. Four grasses occupy the vast majority of our forage land with Kentucky 31 tall fescue occupying the largest number of acres (Figure 3). Clovers (red, ladino, white) (Figure 4) are, by far, the dominant legumes found in Kentucky hay/pasture fields. Pasture production from the cool-season species varies greatly during the growing season (Figure 5).
Figure 3. Forage Grasses

Figure 4. Forage Legumes
FORAGE STATUS

Since our forage base is characterized by cool-season growth patterns, we usually suffer from shortages of both quality and quantity during the hot, dry summer months. We need more acres of plants capable of complementing our cool season forages by making more growth during summer. Tall fescue dominates our forage base and over 85% of our tall fescue pastures contain an endophytic fungus lowering animal performance. Most of our pastures are too large for efficient management/utilization. Less than 10% of the forage land is soil tested. Of the forage land that is tested, 40% is below pH 6.0, 45% is low in phosphorus and 35% is low in potassium. Legumes are present at a high enough level to significantly improve overall animal production on less than a third of the acreage needed. Our hay supply for winter feeding is usually harvested too late for highest quality and animal performance. We are not using improved varieties to the extent we need for optimum forage production and quality.
CHALLENGE

JUST THINK WHAT A TREMENDOUS POTENTIAL-OPPORTUNITY WE HAVE IN FORAGE-BEEF CATTLE IN KENTUCKY. I challenge each of you to leave this conference today with at least a new idea, principle, technique or philosophy that you can implement in your forage program that will result in more profit to your operation this year.

The four farmers that will follow on the program will discuss how they utilize the resources on their farm to produce beef. I greatly appreciate Lowell, Jason, Russell and Todd for their many contributions to Kentucky’s Forage Industry and appreciate their taking time out of their program to share with us how they “Make Forage Work Down on the Farm.”