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uccessful pasture management practices are based on knowledge of *physiological* and *morphological* reactions of plants. Every plant growth response is caused by a series of physiological reactions (internal chemical changes) inside the plant. Both physiological and morphological (external structural) changes affect forage quantity, quality and/or survival of the plant. If producers are familiar with the physiological and morphological responses, they will understand how a plant reacts to grazing, drought stress, high and low temperature, light, etc.

EXAMPLES OF COOL- AND WARM-SEASON PLANTS

C<sub>3</sub> (COOL-SEASON)  
ANNUAL — Wheat, Rye and Oats

PERENNIAL —  
Tall Fescue  
Smooth Brome  
Kentucky Bluegrass  
Orchardgrass  
Ryegrasses  
Wheatgrasses  
Reed Canarygrass  
Legumes

C<sub>4</sub> (WARM-SEASON)  
ANNUAL — Corn, Sudangrass, Pearl millet

PERENNIAL —  
Big Bluestem  
Indiangrass  
Bermudagrass  
Switchgrass  
Old World Bluestems



Cattle grazing warm-season grass (big bluestem) in July with over-mature, cool-season grass (tall fescue) in background.