

## SUMMER HEAT AND FORAGE GROWTH

As we move into the heart of the summer, hot temperatures are common. How these temperatures affect our pasture and forage plants depends on the type of plants we are dealing with.

The two primary plant classifications are warm-season and cool-season and this is based on basic plant physiology and their specific photosynthetic pathway. Practically speaking, and as their names suggest, every plant species has a specific temperature range in which it maintains growth.

When it gets hot, 90 plus degrees, cool-season plants such as bromegrass, orchardgrass, fescues, needlegrasses, and wheatgrasses all struggle and will have a very slow growth rate, even if there is plenty of moisture. If conditions are very dry, these cool-season grasses might completely stop growth and go into a summer dormant state.

High night temperatures also have forage quality implications for cool-season plants. They can cause rapid respiration rates, burning off valuable nutrients that plants accumulated during the day.

Warm-season grasses are just the opposite. Millet, sudangrass, sorghums, and our native bluestems, grammas, switchgrass, and other warm-season grasses thrive when the temperature is around 90 degrees. Their metabolism runs at peak efficiency when it is hot so they grow rapidly while maintaining reasonable forage quality and good root growth.

As you graze or hay, be aware of the stress weather is putting on your forage. When it's too hot, allow plants a longer recovery period before the next grazing. And don't expect high feed values or good animal gains when the nutritional goodies are burned right out of the plants.

Proper expectations and management adjustments can limit the stress from hot weather. For today's Pasture and Forage Minute, I'm Nebraska Extension Range and Forage Specialist, Jerry Volesky.