

Influence of Herbicides Applications on Weed and Tall Fescue Management and Grazing  
Distribution in Missouri Pastures

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One weed that is of concern in Missouri pastures that can be detrimental is Northern dewberry (*Rubus flagellaris Willd.*). This weed can be detrimental due its production of spines which can injure grazing animals and also humans. Results from our study show that herbicide applications made in the fall that contain metsulfuron will provide approximately 50% control of this weed, but where severe infestations exist a follow-up application will be required.

Tall fescue can also be detrimental to the health of grazing animals. It can contain a fungus known as ergovaline which is in its highest concentration in tall fescue seedheads. Applying herbicides at certain growth stages can reduce tall fescue seedhead density. Applications of metsulfuron-containing herbicides at the boot stage of growth reduced tall fescue seedhead density the most compared to vegetative stage applications of these same herbicides.

The distribution of cattle grazing in mixed tall fescue and legume pastures is also an important aspect of pasture management. Overgrazing of certain areas in pastures can cause an increase in weed growth and also reduce the growth of desirable forage. However, many producers are skeptical of treating pastures with broadcast herbicide applications as almost all herbicides available for broadleaf weed control in a pasture setting will eliminate other desirable forage species such as clover. Through this research, it was determined that even with the elimination of legumes, cattle grazing distribution can be increased in herbicide-treated pastures compared to non-treated areas within the same pasture.