

Bracken Fern Control in Pastures¹

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Bracken fern is a common perennial widely distributed across the United States (Figure 1). This plant grows well in both wet and dry soil, but seems to prefer semi-shaded environments. Bracken fern is most common along tree lines, in forest openings, and around building borders. Although animals rarely consume bracken fern, they will do so when adequate forage is not available. This is problematic since bracken fern is a well-documented poisonous plant (Knight and Walter 2001). All parts of the plant contain the toxin, but levels are highest in the rhizomes. Generally speaking, horses and swine are most susceptible, while ruminant animals are more tolerant (Knight and Walter 2001). Toxicity from bracken fern (which induces vitamin B1 deficiency) does not usually occur immediately but rather is most commonly chronic in nature, requiring repeated exposure to the plant over time.

Control of bracken fern has been relatively difficult to achieve since the majority of the commonly used pasture herbicides are ineffective. Research conducted at the University of Florida has shown that 2,4-D + dicamba (Weedmaster, others), triclopyr (Remedy Ultra, others), and 2,4-D + aminopyralid (GrazonNext HL) are ineffective (Table 1). These herbicides will often cause treated leaves to die, but resprouting from rhizomes occurs rather quickly. However, metsulfuron (MSM 60, others) and chlorsulfuron (Telar) have proven to be effective. Although metsulfuron and chlorsulfuron were effective, by 8 months after treatment



Figure 1. Bracken fern.

Credits: Chris Evans, River to River CWMA, Bugwood.org

some plants were beginning to resprout. Considering that bracken fern is a perennial plant, multiple applications may be necessary for complete control. Before choosing an herbicide, it should be noted that metsulfuron can be safely applied to bermudagrass, but will result in moderate to

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severe injury if applied to bahiagrass. Chlorsulfuron can be safely applied to both bermudagrass and bahiagrass.

References

Knight, A. P., and R. Walter. 2001. *A Guide to Plant Poisoning of Animals in North America*. Jackson, WY: Teton New Media.

Table 1. Control of bracken fern with postemergence herbicides.

Herbicide	Application rate per acre	1 MAT ¹	8 MAT ¹
		% control	
2,4-D	2 qt	90	0
2,4-D + aminopyralid (GrazonNext HL)	24 oz	90	0
Triclopyr ester (Remedy Ultra)	1 qt	100	0
Triclopyr + fluroxypyr (PastureGard)	1.5 qt	100	0
2,4-D + dicamba (Weedmaster)	1.5 qt	95	0
Metsulfuron (Cimarron, MSM 60)	0.3 oz	60	95
Chlorsulfuron (Telar)	0.5 oz	60	90

¹ MAT- months after treatment