

Tall fescue is one of the most widely used forages in the United States. It is an aggressive plant, tolerates poor soil and climatic conditions, and has a long growing season. Unfortunately, most tall fescue in the U.S. is infected with a fungal endophyte which can be dangerous to cattle. Knowing how to manage this endophyte effectively can make the difference in the grazing success of the pasture.

An endophyte is a naturally occurring fungus that is found in fescue pastures. This fungus grows inside the plant and is passed to the next generation of plants via the seed. The endophyte produces a chemical compound which helps protect plants from a range of insect pests but can be associated with a number of animal health issues such as lower feed intake, necrosis of hooves, reduced weight gain, digestive problems, and reproductive problems. Infected fescue affects the animals grazing on that pasture due to the toxic alkaloid contained in endophytes. Even though the presence of the endophyte in tall fescues results in toxicity problems, research has shown that plants with endophytes are more persistent and, therefore, give a longer stand life to the pasture.

Infected and endophyte-free fescues both have their own advantages and disadvantages. Infected fescue can cause a 50% reduction in animal gains and contribute to several other issues. Endophyte-free fescues enhance animal performance, yet the plant may suffer from drought, overgrazing, and diseases. To solve this issue, a novel endophyte has been created to contain lower amounts of toxin than the old endophyte. In doing so, the novel endophyte balances between the two and increases the plant persistence.

There are numerous management factors to consider when faced with grazing pastures containing primarily tall fescue. First consider having your plant tissue microscopically examined by a lab to find out the level of infestation. If less than 30% of the plants are infected with endophyte, there is no need to establish a new pasture. Other species such as red or white clover, lespedeza, or alfalfa can simply be introduced to help prevent any loss in animal performance due to the toxicity. However, in pastures with levels of 30% or more infestation, it is recommended that each year a portion of the pasture is re-established with endophyte free fescue. This can be done by using a chemical or mechanical means to kill the existing fescue. Then, an annual forage such as sorghum-sudan should be used to graze during the summer months. After summer grazing, the summer annual is killed and an endophyte-free tall fescue is planted. The following February, red and white clover is seeded into the fescue stand. These steps will ensure that you will effectively manage your grazing needs without a large loss in pasture productivity.

Management is critical when looking to improve performance in grazing animals. As more people are educated on the endophytes found in tall fescue, proper practices can be implemented to ensure successful pasture efficiency.