

# THE ROLE OF WEED CONTROL IN PROFITABLE PASTURES

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Pasture weeds compete for resources such as space, water, and nutrients. This competition reduces forage yield which in turn reduces the carrying capacity of a pasture. Although herbicide applications are needed to gain a quick upper hand on weed control most producers are deterred due to cost, the potential loss of pasture legumes, labor, or the belief that herbicide applications are required frequently to keep weed population under control. However, herbicide use in pastures should not be looked at in this manner but instead as an investment that can pay for itself very quickly and easily, and be long-term especially under good pasture management.

Many producers chose to mow to suppress pasture weed species. However, mowing is rarely cost effective in comparison to herbicide applications, it doesn't control most species, it removes grazable forage, and it requires multiple timely mowings and a long-term commitment on the species it does control. University economist estimate that mowing costs between \$15.00-\$25.00/acre, which not only accounts for labor and fuel cost, but also the value, and depreciation of equipment used. When one considers the cost per acre for a single mowing vs. a single herbicide application they find the cost is comparable. For example, three timely mowings per year over a two year period could reduce goldenrod and ironweed populations by 80%. At current estimates this would equate to \$95.00 - \$150.00/acre for only partial weed control, approximately 4 - 8 times more than the single herbicide application that would have done the same job.

Pasture weed control many times begins with the use of an application or several applications of herbicides to give the producer a "clean slate". However, without proper management the pasture can quickly revert back to its previous weedy state resulting in the need for regular follow-up applications. This is especially true in pastures that have poor soil fertility and in areas that are continuously grazed or overgrazed. This is because constant removal of herbage and poor regrowth weakens the stands ability to compete and also prolongs soil surface exposure to sunlight making weed growth more favorable. A good soil fertility program and the use of grazing practices such as rotational grazing that help maintain a minimum of a 3-4 inches of herbage, high stand density, and quick regrowth are necessary for long-term weed control. Under good management conditions a producer can many times extend grazing 4 years and beyond making herbicide use much more economical.

Pasture herbicides can be simplified into 2 basic categories: herbicides with soil residual activity, and herbicides with no residual activity in the soil. Products that have soil residual activity many times are applied directly to the canopy and absorbed through the plant tissue, but they are also absorbed into the soil where they can be taken up by weedy plants that may try to emerge after application. These types of herbicides can offer producers several months of control which may be used to manage for a more vigorous stand to outcompete future weeds. The drawback to these herbicides are that legumes may not be replanted for 1-2 yrs. Herbicides

with no residual activity in the soil usually require contact to be made with the plant as it can only be taken up by aboveground tissue. The major drawbacks to these herbicides are that they will not suppress weeds that emerge in the future, and they still kill desirable legumes when applied. The upside to not having residual activity in the soil is that legumes may be planted back much quicker, sometimes within the season of application.

In the end the producers' goals and management will determine the success and longevity of weed control. However, It is suggested that producers seeking pasture weed control consult university extension or crop specialist at local coops before choosing a product as correctly identifying the weeds present and knowing the proper timing will determine the success of your applications.