

RESPONSE OF BROADLEAF WEEDS TO SELECTED HERBICIDES AND PREPACKAGED HERBICIDE COMBINATIONS IN MISSOURI PASTURE AND HAY FIELDS. Jianmei Li, Kevin W. Bradley, Jimmy D. Wait, and Reid J. Smeda, Research Specialist, Assistant Professor, Research Associate, and Associate Professor, Department of Agronomy, University of Missouri, Columbia, MO 65211.

Three field trials were conducted to evaluate the effect of several herbicides and prepackaged herbicide combinations on broadleaf weed control in pastures near Columbia, Missouri. Key broadleaf weeds that were evaluated in these trials include tall ironweed, Missouri goldenrod, curly dock, and broadleaf plantain. In the first field trial, 0.17 lb ai/a picloram plus 0.17 lb ai/a fluroxypyr provided 86 and 92% visible control of tall ironweed and Missouri goldenrod, respectively. Picloram plus 2, 4-D at 0.135 plus 0.5 lb ai/a also provided similar levels of tall ironweed and Missouri goldenrod control at 60 days after treatment (DAT). Metsulfuron alone at 0.0113 lb ai/a provided excellent control of Missouri goldenrod but essentially no control of tall ironweed 60 DAT. Dicamba plus 2, 4-D at 0.5 plus 1.0 lb/a provided 83% control of Missouri goldenrod and 73% control of tall ironweed. The remainder of the herbicide treatments evaluated, including 1.0 lb/a 2, 4-D, 0.7 lb/a 2, 4-D plus 0.25 lb/a dicamba, and 0.375 lb ai/a triclopyr plus 0.125 lb ai/a fluroxypyr, generally provided less than 75% control of either species 60 DAT. In the second field trial, standard use rates of the prepackaged herbicide combinations clopyralid plus 2, 4-D and picloram plus 2, 4-D provided greater than 80% control of tall ironweed at 65 DAT. However, only the higher rates of the metsulfuron plus dicamba plus 2, 4-D prepackaged combination provided similar levels of tall ironweed control. All herbicide treatments resulted in forage yields that were significantly lower than the untreated control, but there were no differences in forage yield among the herbicide treatments. In the third field trial, standard use rates of the picloram plus 2, 4-D, triclopyr plus fluroxypyr, picloram plus fluroxypyr, clopyralid plus 2, 4-D, and metsulfuron plus 2, 4-D plus dicamba prepackaged combinations provided excellent control of curly dock 60 DAT. Applications of 2, 4-D or dicamba alone provided lower levels of curly dock control. Only dicamba at 1.0 lb/a and triclopyr plus fluroxypyr at 0.375 plus 0.125 lb/a provided less than 80% control of broadleaf plantain 60 DAT.