CANADA THISTLE CONTROL WITH SPRING-APPLIED CLOPYRALID AND TRICLOPYR. Andrew T. Lee, Michael W. Marshall, J. D. Green, William W. Witt, Graduate Research Assistant, Research Specialist, Extension Specialist, and Professor, Department of Agronomy, University of Kentucky, Lexington, KY 40546.

Long-term canada thistle control in pastures and roadside right-of-ways has been inconsistent. 2,4-D, dicamba, and metsulfuron have been traditionally used to control or suppress canada thistle growth. Triclopyr plus clopyralid in a 3:1 mixture was recently labeled for roadside rights-of-ways and pastures. The target weeds for the herbicide were perennial broadleaves, including canada thistle. Field studies were conducted in 2001 at Lexington and Owingsville, KY to compare the initial burndown and regrowth efficacy of clopyralid plus triclopyr at various rates to 2,4-D, dicamba, and metsulfuron. Triclopyr (0.80 kg/ha) plus clopyralid (0.27 kg/ha), triclopyr (1.28 kg/ha) plus clopyralid (0.43 kg/ha), 2,4-D (2.16 kg/ha), dicamba (1.70 kg/ha), and metsulfuron (0.01 kg/ha) were evaluated. All treatments were applied in June when canada thistle was pre-bud and 50 cm to 75 cm in height. Efficacy was rated on a percent control basis 4, 8, and 12 weeks after treatment (WAT). Immediately following the 8 WAT ratings, all plots were mowed to approximately 10 cm and regrowth was evaluated 12 WAT.

Data from both locations was combined because the location by treatment effect was not significant. <u>4 WAT</u>. Percent control ranged from 71% to 85%. Triclopyr (1.28 kg/ha) plus clopyralid (0.43 kg/ha) at 85% and 2,4-D at 81% were greater than dicamba at 71% and metsulfuron at 71%.

<u>8 WAT.</u> Percent control ranged from 74% to 96%. Both rates of triclopyr plus clopyralid at 89% and 96% were statistically greater than all other treatments. Dicamba at 81% was statistically greater than metsulfuron at 74%.

<u>12WAT (Regrowth).</u> Control ranged from 25% to 71%. 2,4-D and both rates of triclopyr plus clopyralid were statistically greater than dicamba at 37% and metsulfuron at 26%.

In conclusion, increasing the rate of triclopyr plus clopyralid did not increase canada thistle control. However, triclopyr plus clopyralid did offer greater canada thistle control compared to 2,4-D (8 WAT), dicamba (4, 8, 12 WAT), and metsulfuron (4, 8, 12 WAT).