
ABSTRACT

A study was conducted over two years examining the effect of amide herbicides on sugar beet injury and weed control. S-metolachlor and dimethenamide-P were applied to sugar beets pre-emergence and at the two-leaf stage of sugar beet growth. S-metolachlor was applied at rates of 0.72 kg ai/ha, 1.0 kg ai/ha and 1.4 kg ai/ha. Dimethenamide-P was applied at rates of 0.42 kg ai/ha, 0.63 kg ai/ha and 0.84 kg ai/ha. Regardless of herbicide rate, dimethenamide-P applied pre-emergence resulted in sugar beet injury each year. S-metolachlor applied pre-emergence at rates of 1.4 kg ai/ha and 1.0 kg ai/ha also caused sugar beet injury each year. In one of two years, s-metolachlor applied pre-emergence at 0.72 kg ai/ha resulted in sugar beet injury. Sugar beets were not injured when herbicides were applied at the two-leaf stage of growth. In one of two years, Amaranthus retroflexus control was similar between treatments when s-metolachlor and dimethenamide-P were applied pre-emergence regardless of herbicide rate. Emerged weeds were not controlled when s-metolachlor and dimethenamide-P were applied at the two-leaf stage timing.