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- Weed and sugarbeet response to postemergence applications of DPX-66037, clopyralid, ethofumesate, and desmedipham plus phenmedipham.

Field experiments were conducted to examine the performance of several new herbicides and herbicide combinations for crop selectivity and weed efficacy. Spray volume influenced sugarbeet injury from herbicides with injury greater at 181 l ha⁻¹ compared to 96 l ha⁻¹. Combinations of desmedipham plus phenmedipham at 0.18 plus 0.18 kg ha⁻¹ with ethofumesate at 0.27 kg ha⁻¹ increased sugarbeet injury, while desmedipham plus phenmedipham with DPX-66037 at 0.018 kg ha⁻¹ and ethofumesate plus DPX-66037 decreased injury over that observed with desmedipham plus phenmedipham alone. Desmedipham plus phenmedipham provided average weed control of 81%. When ethofumesate or DPX-66037 was added to desmedipham plus phenmedipham average weed control increased to 86 and 96%, respectively. A combination of ethofumesate plus DPX-66037 provided average weed control of 81%. Clopyralid at 0.10 kg ha⁻¹ plus DPX-66037 was selective to sugarbeets but only provided average weed control 70%. The combination of clopyralid plus DPX-66037 reduced kochia control as compared to suppression observed when DPX-66037 was applied alone.