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Leafy spurge control with chemical and mechanical treatments at the Dickinson Experiment Station

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Two separate studies that test effects of selected treatments on leafy spurge (*Euphorbia esula*) in western North Dakota have been conducted at the Dickinson Experiment Station, N.D.S.U., since 1983.

One study tests the effects of tebuthiuron (Graslan) at three rates, 1, 2, and 3 pounds of active ingredient per acre with 20% concentration pellets. One set of replicated plots have been monitored for 3 years following treatment and a second set for two years. A control of no treatment was included in each replication.

The second study tests the effects of mowing at two different phenological stages and picloram (Tordon) at three phenological stages at 2 lbs ai per acre of 2K granules. The treatments were: at pre-flower (early June), mowing, mowing plus picloram, and picloram; post flower (seed development (early July)), mowing, mowing plus picloram, and picloram; and early regrowth (mid August), picloram. A treatment of mowing at pre-flower and a remowing at post flower was included. A control of no treatment was included in each replication.

The data that was collected on all of the plots were: above ground herbage production separated into spurge, grass, forbs, and shrubs; leafy spurge stem densities separated into seedling, mature, regrowth, and dead above ground; and mean weight per leafy spurge stem. All of these data were collected on a monthly basis.

An annual report for the 1985 data will be completed prior to 31 March 1986. A summary report is planned for each study.