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Research in progress

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Attainment 1981 - Publications:

Bjugstad, Ardell J., and Daniel Noble. 1981. Remote sensing in the inventory of leafy spurge. *In* Abstracts of Annual Meeting of Weed Science Society of America. Las Vegas, Nev.

Francis, Richard E., Meredith M. Morris, Richard J. Myhre, Daniel J. Noble, and Paul Skinner. 1981. Inventory and analysis of leafy spurge sites. – *In* Abstracts of the In-place Inventories: Principles and Practices, X-National Workshop. University of Maine, Orno, Maine.

Skinner, Paul. 1981. Inventory and analysis of leafy spurge (*Euphorbia esula*) sites – A feasibility study. *In* Abstracts of 1981 Western Society of Weed Science Meeting. San Diego, Calif.

1. The effects of fire on germinating capabilities of leafy spurge (*Euphorbia esula*) with and without chemical pretreatment – A preliminary study¹.

Treatment ²	Percent leafy spurge seeds germinating
Control (no Tordon or burn)	50
Tordon (only) ³	16
Tordon plus burn (head fire)	10
Tordon plus burn (backfire)	0
Burn (no Tordon pretreatment)	5

¹This was a simple one-time burn to determine if there was a possible suggestion of effects of fire. Obviously there are effects and a more comprehensive study will follow.

²Plots treated with Tordon spray in June 1979 and burned October 20-23, 1979. Immediately thereafter duff, ashes and soil to a depth of four inches were collected and tested for germination in greenhouse plots.

³Apparently residuals of Tordon affected germination abilities of seeds the following autumn.

2. Determining select soil-site relationships of leafy spurge (*Euphorbia esula* L.).

The major objective was to sample a minimum of 30 different soil profiles on range sites having various degrees of spurge infestation. A secondary objective was to obtain range condition data for these sites. Both objectives were met with 35 sites analyzed for soil depth, texture, consistence and a profile description written for each site. Soil samples were collected for further laboratory analysis. This research will be concluded the winter of 1982.

3. Leafy spurge - The status of our knowledge (with comprehensive bibliography).

The proposed sections and authors are:

Distribution and inventory	—	Bjugstad, Noble
Biology of the plant	—	Messersmith
Chemical control	—	Alley
Cultural control	—	Mitich
Biological control	—	Dunn, Harris, Fay
General information	—	Bjugstad, Noble

Sections are complete except for first and last which have been reassigned since Nobles transfer. Bibliography search completed and completion of all sections scheduled for fall of 1982.