

Reprinted with permission from: 1994 Leafy Spurge Symposium, Bozeman, MT.  
July 26-29, 1994. p. 40.

Sponsored by: Great Plains Agricultural Council, Montana Noxious Weed Trust Fund,  
and United States Department of Agriculture-Agricultural Research Service.

---

## **The establishment, increase, and impact of *Aphthona* spp. (Chrysomelidae) on their host, leafy spurge (*Euphorbia esula*), in Fremont County, Wyoming**

STEPHEN VAN VLEET

*Fremont County Weed and Pest Dept., Lander, Wyoming 82520, (307) 332-1052.*

Flea beetles have been released at over 100 locations in Fremont county, Wyoming, from 1990 through 1994 for the biological control of leafy spurge. One site in particular has been the focus of the research. The site of emphasis is referred to as site 3.

In 1990, approximately 2,750 *Aphthona nigriscutis* beetles were released in site 3. Feeding of *Aphthona nigriscutis* in site 3 had eliminated 5,281 square feet of leafy spurge in 1993 and 56,410 square feet in 1994. Elimination of leafy spurge increased ten fold over the two-year period. A degree day model was set up for the emergence of *Aphthona nigriis* based on 1993 and 1994 data. Also, a sweep net population graph was developed for beetles collected in a 36-foot-square sampling area from 1993 to 1994.