

Reprinted with permission from: 1994 Leafy Spurge Symposium, Bozeman, MT.  
July 26-29, 1994. p. 45.

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

---

## **USDA-APHIS-PPQ redistribution of *Aphthona* spp. leafy spurge flea beetles, 1988-1993**

H. W. ZIOKOWSKI, R. D. RICHARD, and R. W. HANSEN

USDA-APHIS-PPQ, Forestry Sciences Lab, Montana State Univ., Bozeman, MT 59717-0278.

USDA-APHIS-PPQ began its biological control program on leafy spurge in 1988 with the introduction of three species of *Aphthona* flea beetles: *A. cyparissiae*, *A. czwalinae*, and *A. flava*. *A. nigriscutis* was brought into the program in 1989, followed by *A. lacertosa* and *A. abdominalis* in 1993. The following redistribution activity by species has occurred from 1988 through 1993:

*A. abdominalis* (50 adults in one Montana release)

*A. cyparissiae* (128,553 adults released at 178 sites in 110 counties in two states)

*A. czwalinae* (749 adults released at seven sites in three counties in two states)

*A. flava* (174,590 adults released at 131 sites in 77 counties in fifteen states)

*A. lacertosa*/*A. czwalinae* mix (25,720 adults released at 21 sites in fifteen counties in eleven states)

*A. nigriscutis* (336,894 adults released at 389 sites in 149 counties in fourteen states)

The following states have received *Aphthona* species flea beetles in the period from 1988 to 1993: Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming. Thematic maps of the redistribution of *Aphthona* species leafy spurge flea beetles in these states and tables summarizing the releases by species and state were displayed.