Leafy Spurge Flea Beetles
(*Aphthona spp.*)

LEAFY SPURGE BIOLOGICAL CONTROL

IMPROVING BIOCONTROL SUCCESS

STORING

- Collect beetles in breathable containers, place in a cooler on top of ice packs
- Place a towel/newspaper between ice blocks and flea beetle containers to prevent freezing the insects
- Keep insects in the refrigerator at a moderate temperature, in breathable containers for **up to 3 days**

MONITORING

- Look for craters (patches in the infestation lacking spurge) at the release site
- Sweep net for adults early - late summer
- Take photos and mark release locations
- Monitoring forms are available through the MT Biocontrol Project at mtbiocontrol.org

RELEASING

- Release 500+ flea beetles in the summer per site, scatter the insects close together
- A minimum of a 5 acre infestation is ideal
- Release in an area that sunlight reaches the ground and will not flood
- Avoid releasing them near ant hills
- Best used in combination with other leafy spurge biocontrol agents

COLLECTING

- Sweep net stands of leafy spurge where flea beetles are abundant
- Empty the net into an insect separator using the proper methods (separate information sheet)
- During collection:
  - 500-2500 flea beetles per container
  - **Add spurge foliage to containers (no flowers or seeds)**
  - Cover any openings that the flea beetles could escape from, including taping around the lid
  - **Immediately store** as described in the storage section
- **It is important to not transfer other weed seeds from the collection site to the release site**

BACKGROUND

BIOLOGY

- One generation per year
- Larvae pupate in the soil in the spring
- Adults emerge from the soil in early summer
- Females lay numerous eggs in groups, on leafy spurge stems, at or just below the soil surface
- Larvae burrow into the soil to feed on roots
- Larvae overwinter in the soil

IMPACT

- Adults feed on leaves and flowers, which can reduce the resources that the plant is able to store
- Adults in high numbers can defoliate plants
- Larval feeding on root hairs and young roots causes the most damage, by inhibiting root function and stunting stem growth

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