

South Dakota - Nebraska Purple Loosestrife Management Project

Administering Agency

Mike Durfee State Prison

Contact(s)

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Please provide a two-sentence description of the program.

This is a biological control program to help stop the invasive plant, purple loosestrife. The insectary at the Mike Durfee State Prison raises and releases around 250,000 Galerucella beetles on the Missouri River yearly.

How long has this program been operational (month and year)?

Date of inception; May 1998.

Why was the program created? (What problem[s] or issue[s] was it designed to address?)

The program was started to stop the spread of this exotic wetland perennial, purple loosestrife. Purple loosestrife damages wetland ecosystems and displaces native plants and habitat.

Describe the specific activities and operations of the program in chronological order.

- April - dig 500 loosestrife roots for insectary, the roots are potted and netted and placed in the pond.
- May- we receive 5000 Galerucella beetles. 8-10 beetles are placed in each netted purple loosestrife bucket.
- June- water levels are kept up in pond, nets are inspected daily for wear, flower blooms are picked daily.
- July- the adult beetles have gone through the maturation process and the new beetles are ready for release.

Why is the program a new and creative approach or method?

Biological control of purple loosestrife is an ecologically sound method. This positive approach is very attractive to a wide segment of society.

What were the program's start-up costs? (Provide detail about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)

The Mike Durfee State Prison has teamed up with the South Dakota and Nebraska Management Project in the production of the Galerucella beetle. The Mike Durfee Prison provides all inmate labor, supervisors' labor and travel, and water for the insectary. The other materials and costs are picked up by the Purple Loosestrife Management Project.

Start-up cost \$150.00

What are the program's annual operational costs?

The Mike Durfee Prison operation costs per year are \$300.00.

How is the program funded?

The program is funded with donations and matching funds.

Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.

No.

What equipment, technology and software are used to operate and administer this program?

A backhoe is used in the spring to dig up the roots we use for stock plants. Aspirators are used to transfer the beetles from bucket to bucket.

To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address and telephone number.

This was a joint commitment from South Dakota and Nebraska.
Ron Flakus, S.D Department of Agriculture.
Judy Engelhaupt, Boyd County, NE Weed Control
Neil Von Eschan, Charles Mix Weed and Pest Board. P.O Box 188 Lake Andes, SD 57356
(605) 487-7666

Are you aware of similar programs in other states? If YES, which ones and how does this program differ?

Yes, Michigan State University offers an education and training programs statewide for schools, nature centers, youth and community organizations, and land management professionals in the rearing and releasing of Galerucella beetles. The techniques involved in rearing and releasing of the Galerucella beetles are similar.

Has the program been fully implemented? If NO, what actions remain to be taken?

Yes.

Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

Cons: this project takes at least 5-10 years to build up a community of Galerucella beetles to see an impact on the purple loosestrife.

Pros: the Galerucella beetle is host specific to purple loosestrife and is harmless to humans and pets.

How has the program grown and/or changed since its inception?

When the program was started we produced 300 buckets of Galerucella beetles for release. We now do 500 buckets of Galerucella beetles.

What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

Educating the surrounding communities, getting landowners to participate in the program.