

SAVING UTAH'S LANDSCAPE SQUARROSE KNAPWEED



Photo courtesy of USDA NRCS

What is Squarrose Knapweed?



Squarrose knapweed is a competitive rangeland weed native to the eastern Mediterranean area. It was first discovered in Utah in the 1950s. It thrives in arid sagebrush and bunchgrass rangeland.

It grows on about 150,000 acres in Juab, Tooele, Millard, Utah, and Sanpete Counties.

Squarrose Knapweed reaches heights of 12-18 inches and has rose- or pink- colored flowers.



What began in the 1950s as a small patch of weeds near a grain elevator in Juab County, turned into a serious environmental problem that impacts the state's wildlife, grazing and tourist industries. In the early 1990s, it was estimated that squarrose knapweed infested nearly 200,000 acres of rangeland in central Utah. Since then, over 80,000 acres have been successfully treated and controlled with herbicides and the rate of spread has been slowed through additional biological controls.

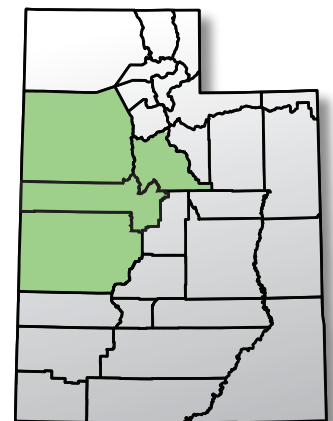
Early efforts by county, state and federal agencies were hampered by lack of funding and coordination. The Squarrose Knapweed Management Demonstration Area was organized in 1997 with the guidance of the Bureau of Land Management's Fillmore office. Once organized, the agencies joined efforts to seek funding and use the grants they obtained to augment agency budgets. This allowed them to sponsor cooperative workdays, aerial spraying, and to provide chemicals to private landowners whose lands were infested.

Weed tours and education days helped the general public understand their role in the spread of squarrose knapweed. The weed seed is spread by trailing livestock, migrating wildlife, off-highway vehicles, recreationists, heavy equipment, road maintenance, and 4X4 travel on back roads. It has no natural competitors in this hemisphere to keep it in check. In 1999 one demonstration project treated and reseeded 26,000 acres. Monitoring shows that the area has recovered with new vegetation.

Why should you care?

Squarrose knapweed is a threat to rangeland and wildlife habitat in Utah because:

- It destroys wildlife habitat and livestock forage.
- It produces a natural herbicide that kills beneficial plants around it.
- It has a taproot that can grow up to five-feet long, making mechanical treatments ineffectual.
- As dead leaves decompose they elevate zinc levels in the soil, making it unsuitable for other plants.



Squarrose Knapweed Management Demonstration Area

SQUARROSE KNAPWEED SUCCESS



Steps to Success:

- Inventory and document infestation locations;
- Determine high priority areas and how to treat them;
- Determine land ownership and patterns;
- Inventory and treat knapweed in wildland fire areas;
- Conduct annual work days in highly infested areas, accomplished by committee members and private landowners;
- BLM's Fillmore field office policy is to wash equipment prior to entering or leaving public lands for surface disturbing activities;
- Grazon® P+D provided 95-100% control on BLM treated lands; Milestone™ has been proven effective on private lands;
- Through research, three insects (two head feeders and one root borer) were proven to be the most effect biocontrol agents for helping control knapweed.

Looking to the Future:

- The committee will continue to monitor and document infested areas and prioritize work based on input.
- Annual work days will continue with increased acres treated, public participation and public awareness.
- Annual meetings of the partners will continue, providing education on the latest treatment technologies.
- Private and federal research will continue providing new technologies for chemical and biotreatments, and application methods.
- Grant seeking and funding will continue to be an important component in the strategy to control and stop the spread of squarrose knapweed in Utah.

What you can do:

- Call your local county weed supervisor or Extension agent to report infestations.
- Learn more about this noxious weed on the web at utahweed.org

Partners

Millard County
Juab County
Tooele County
Utah County

BLM Fillmore field office
BLM Salt Lake field office

Utah Department of
Agriculture and Food

Utah State University

USU Cooperative
Extension Service

USDA Uinta National Forest

USDA Animal and Plant Health
Inspection Service (APHIS)

Utah Department of Natural
Resources

Utah Department of Wildlife
Resources