

# Research shows path to long-term downy brome control

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Data collection activities in June 2019 at Boulder Lake in the Bridger-Teton National Forest near Pinedale, Wyoming, USA. Credit: Roman Borys

Downy brome is an invasive annual grass known to fuel devastating wildfires in the vast rangelands of western North America. Scientists say

the weed represents a significant threat to native sagebrush ecosystems, and to the people and wildlife that depend on them.

Weed managers often use the herbicide imazapic to manage downy brome. Unfortunately, reinvasion from the downy brome seed bank is common after imazapic treatment.

In an open access article featured in volume 15, issue 3 of the journal *Invasive Plant Science and Management*, researchers describe a five-year field study that compared the effectiveness of imazapic with that of indaziflam—a newer [herbicide](#) recently labeled for use in rangelands grazed by livestock. Researchers compared the ability of the two herbicides to reduce downy brome abundance and enable a resurgence in native perennial [grass](#) cover.

While imazapic reduced downy brome initially, control receded after 21 months. However, indaziflam delivered longer-term benefits.

"In some circumstances, a single application of indaziflam controlled downy brome across the entire five-year span of our study," says Jacob Courkamp, a postdoctoral fellow at Colorado State University. "This suggests indaziflam can help achieve [weed management](#) objectives that are not feasible using other herbicides, and that indaziflam may be a powerful tool for weed managers working to mitigate the impacts of invasive annual grasses in grazed areas."

**More information:** Jacob S. Courkamp et al, Indaziflam reduces downy brome (*Bromus tectorum*) density and cover five years after treatment in sagebrush-grasslands with no impact on perennial grass cover, *Invasive Plant Science and Management* (2022). [DOI: 10.1017/inp.2022.21](#)

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