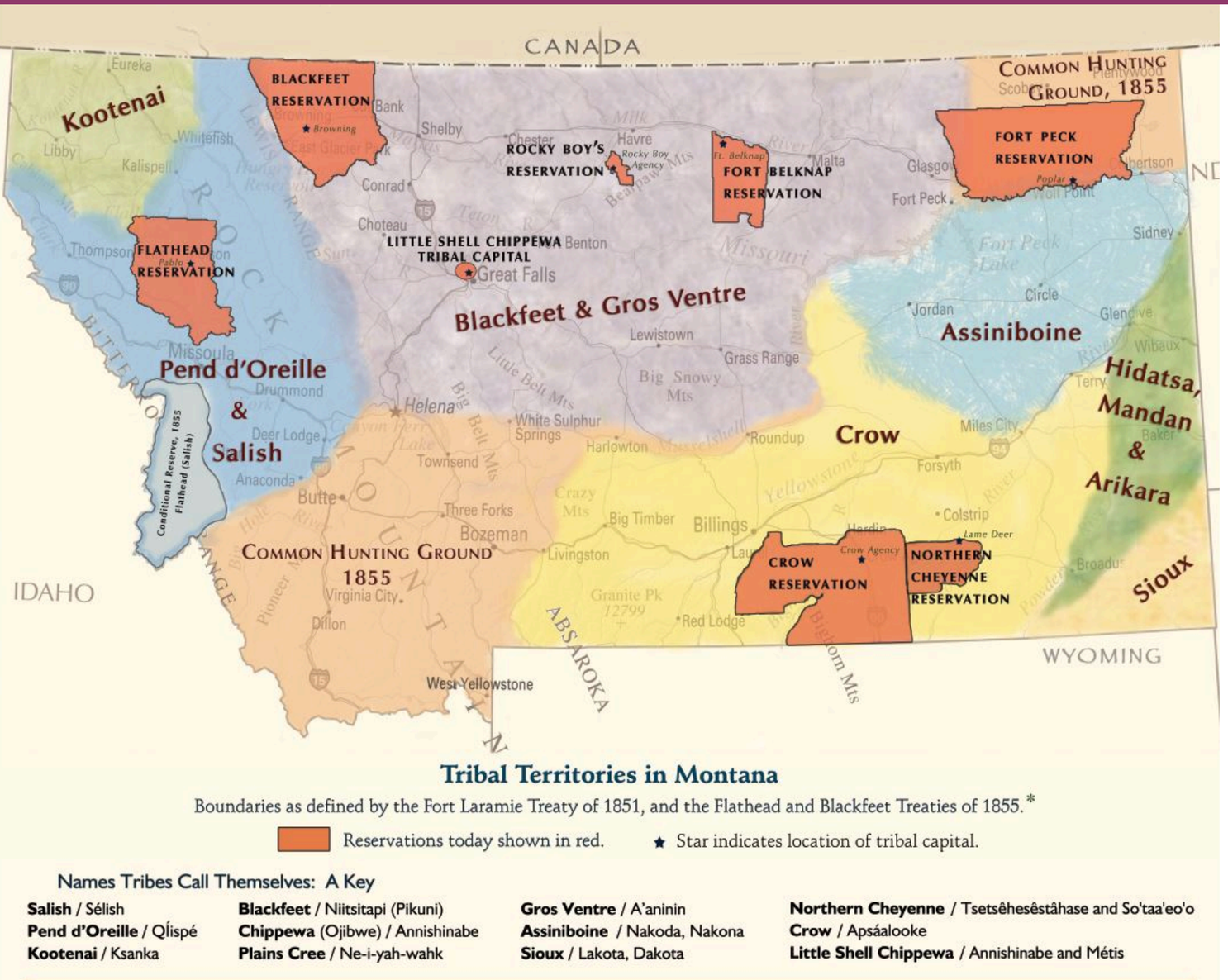
PULL YOUR SHARE



MONTANA
NOXIOUS WEEDS
DEPARTMENT OF AGRICULTURE

LAND ACKNOWLEDGEMENT



Many Montana landscapes where we recreate, hunt, and learn are the homelands of the Apsáalooke (Crow), Salish, Kootenai, Blackfeet, Northern Cheyenne, Assiniboine, Gros Ventre, and other Tribal Nations. These Nations have practiced land stewardship, including plant management, for thousands of years.

Today we are learning on the traditional homelands of the _____ people. We recognize the enduring relationship indigenous peoples have with these lands, waters, plants, and animals. We acknowledge that Tribal Nations continue to be important members of our communities and stewards of these places today. As we learn about invasive species and conservation, we reflect on our shared responsibility to care for the land.

WHAT IS A WEED?



Steve Dewey, Utah State University, Bugwood.org



Paul Wray, Iowa State University, Bugwood.org

WHAT IS A NOXIOUS WEED?

HARM NATIVE SPECIES



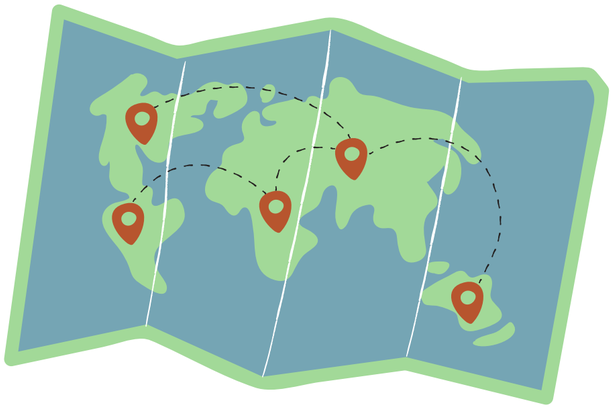
TOXIC TO PEOPLE AND/OR ANIMALS





REDUCES CROP YIELDS

INTRODUCED TO MONTANA





DEGRADES RECREATION

WHAT IS A NOXIOUS WEED?

A non-native plant species that poses a threat to the state's economy, environment, and/or public health.

HARM NATIVE SPECIES



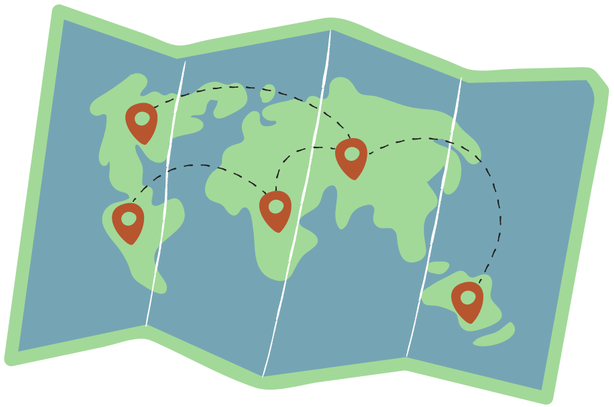
TOXIC TO PEOPLE AND/OR ANIMALS





REDUCES CROP YIELDS

INTRODUCED TO MONTANA





DEGRADES RECREATION

WHAT ARE INVASIVE SPECIES?

NATIVE SPECIES

Organisms that evolved in the region/ecosystem where they are found today.

CURLYCUP GUMWEED

INVASIVE SPECIES

Organisms that reproduce quickly and spread aggressively to overtake habitat. Generally “weeds.”

DOESN’T EXIST - ALL NOXIOUS WEEDS ARE NON-NATIVE

SALSIFY/MEADOW GOATSBEARD

NOXIOUS WEEDS

Non-native, invasive, harmful plant species with a legal designation for management purposes.

CANADA THISTLE

NON-NATIVE SPECIES

Organisms that have been introduced, usually by human activity, to areas outside their historic range.

WHAT ARE INVASIVE SPECIES?







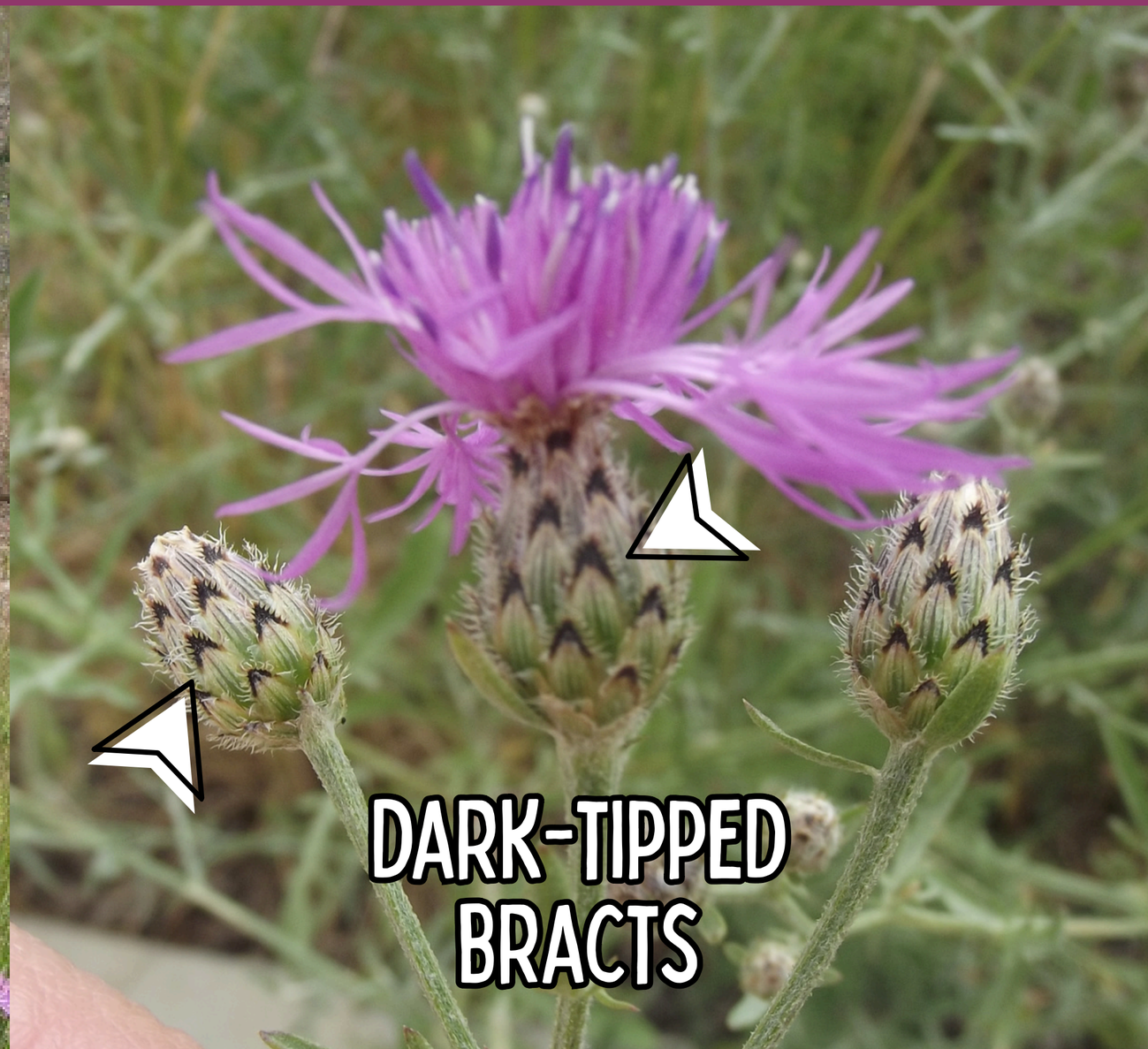




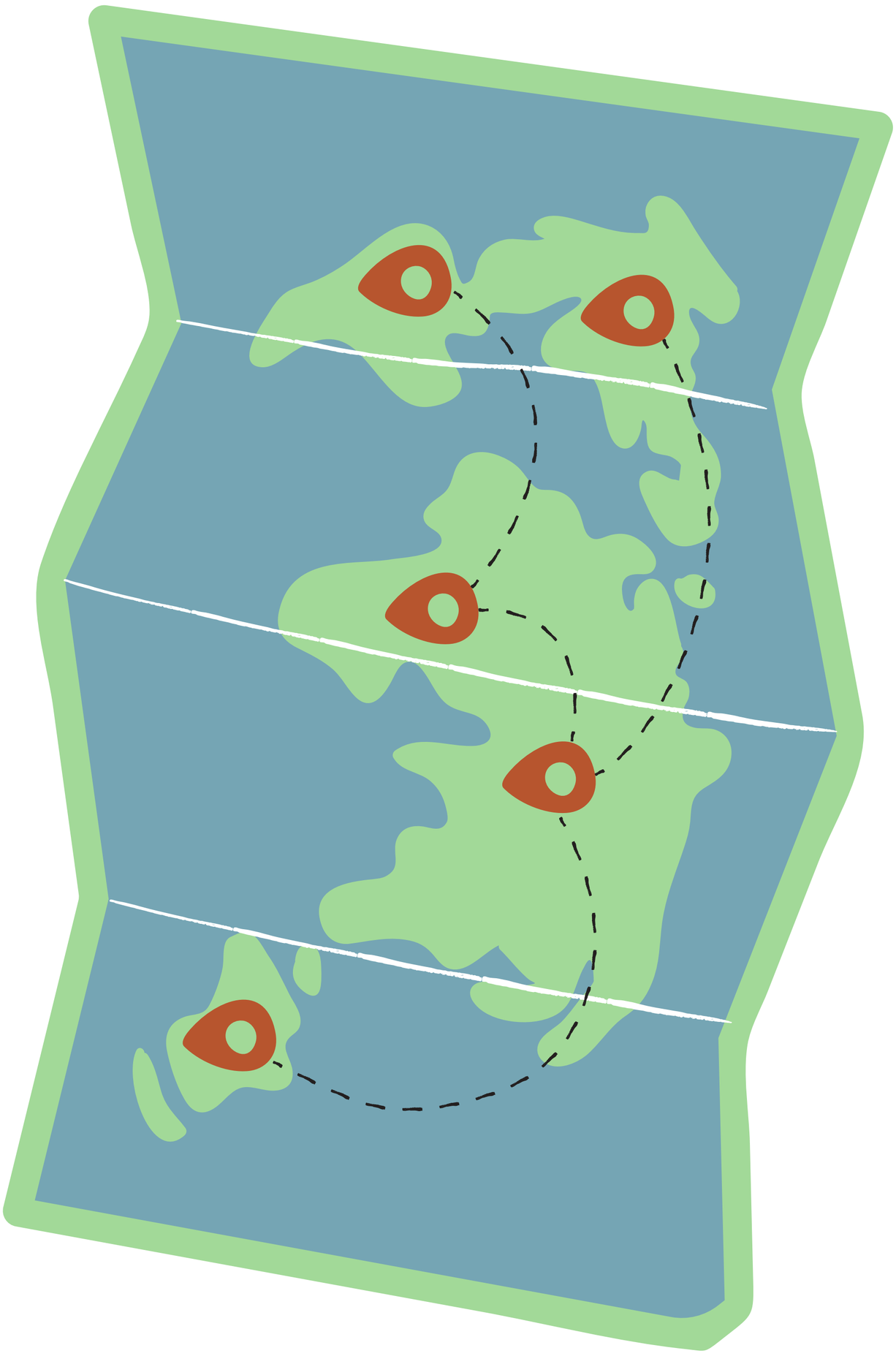
SPOTTED KNAPWEED

(CENTAUREA STOEBE)





WHERE IS KNAPWEED NATIVE, AND HOW DID IT GET HERE?

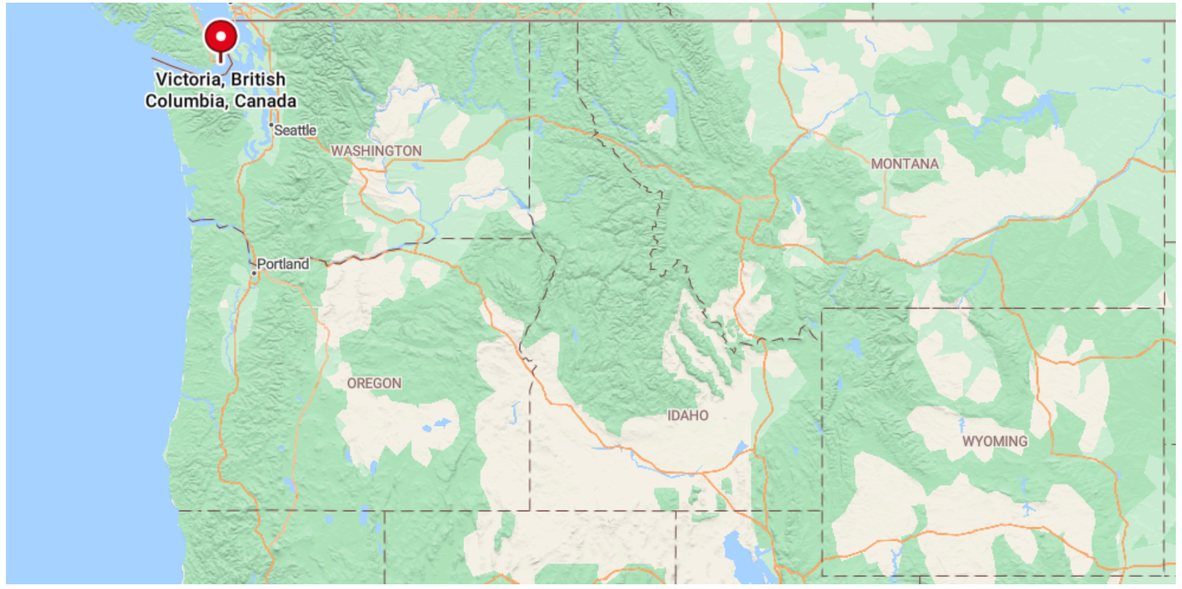


NATIVE TO
SOUTHEASTERN OR CENTRAL EUROPE

Spotted knapweed was first reported in Victoria, British Columbia in 1883.

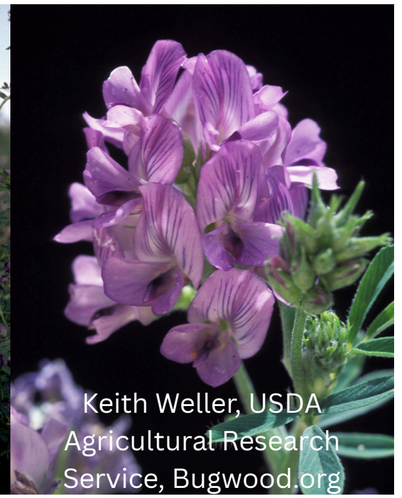
By 1997, it was found in 14 western states and every county in Idaho, Montana, Washington, and Wyoming.

Now, it's found in almost every state and many Canadian provinces.



CONTAMINATED ALFALFA





Ballast Water Explained: Origins, Environmental Dangers and Modern Solutions: www.youtube.com/watch?v=iw9xhBZ_ZF4



HOW DO WEEDS SPREAD IN THE U.S.?



HOW WEEDS SPREAD!



























WHAT PERCENTAGE OF THIS FIELD IS KNAPWEED?



WHAT PERCENTAGE OF THIS FIELD IS KNAPWEED?



HOW DO WE KILL WEEDS?





HERBICIDE

It costs approximately $12.66 to apply the herbicide Milestone to 1 acre of spotted knapweed.

How many acres is there of spotted knapweed in Montana?

How much would it cost to apply herbicide to all acres of spotted knapweed?

Milestone, Murdochs.com



$134.99 FOR 32 OZ



HERBICIDE

In Montana:
2.5 million - 5 million acres
total, depending on the year.

It would cost between
$31,638,281.25 and
$56,948,906.25 to apply
herbicide to all Montana
spotted knapweed, just for
the chemical!

WHY DO ROOTS MATTER?



TAPROOT

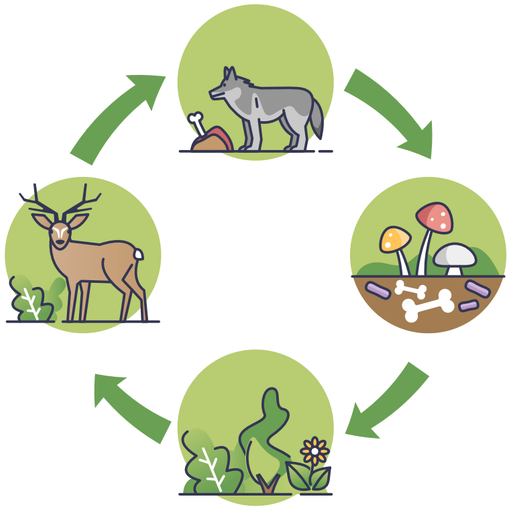


RHIZOMES

Teton County Weed & Pest District. (2024). [Leafy spurge roots] [Photograph]. https://www.tcweed.org/blog/weeds-of-the-month-dames-rocket-and-leafy-spurge

WHAT IS BIOCONTROL?

EVOLVED WITH THE TARGET WEED



BUGS MUST BE MONOPHAGOUS



NATIVE TO THE SAME AREA AS THE TARGET WEED



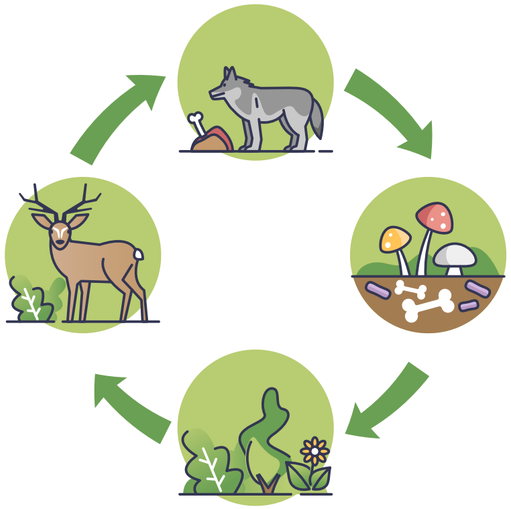


GOES THROUGH 10+ YEARS OF RESEARCH

WHAT IS BIOCONTROL?

Living organisms (usually insects or pathogens) used to control pest populations.

EVOLVED WITH THE TARGET WEED



BUGS MUST BE MONOPHAGOUS



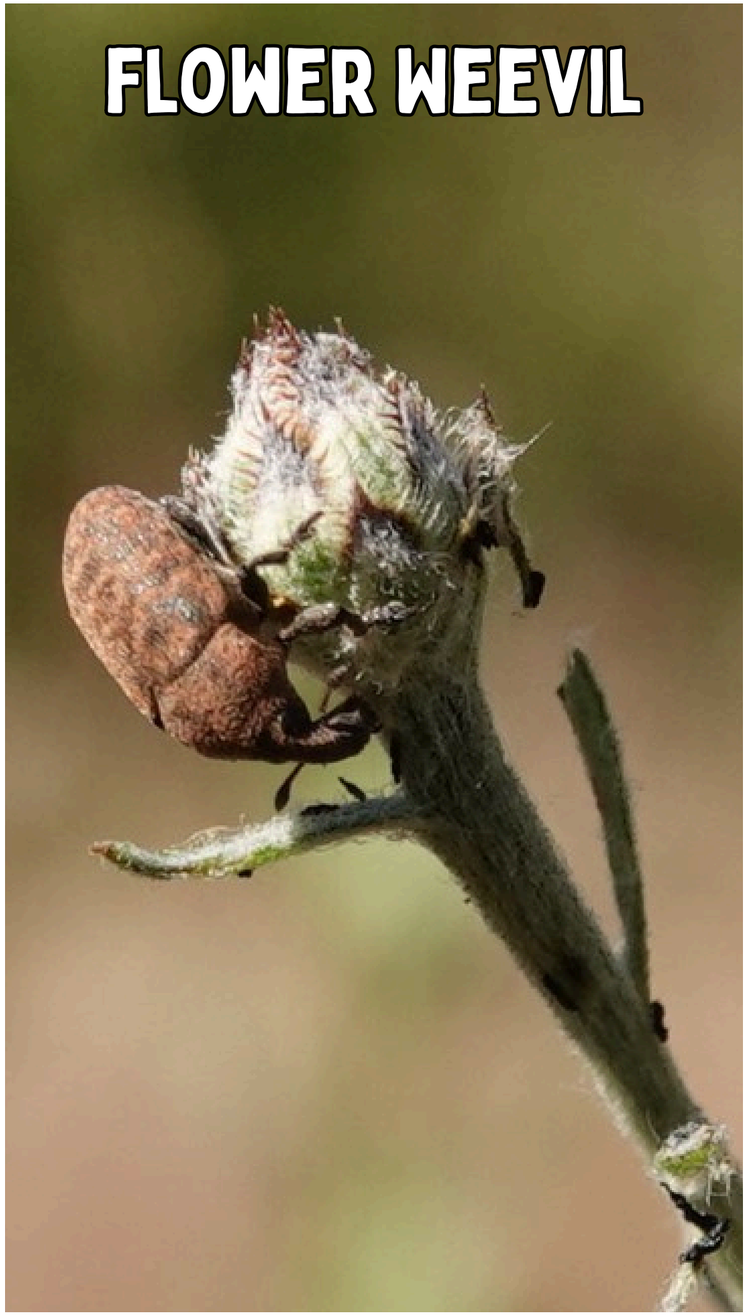
NATIVE TO THE SAME AREA AS THE TARGET WEED





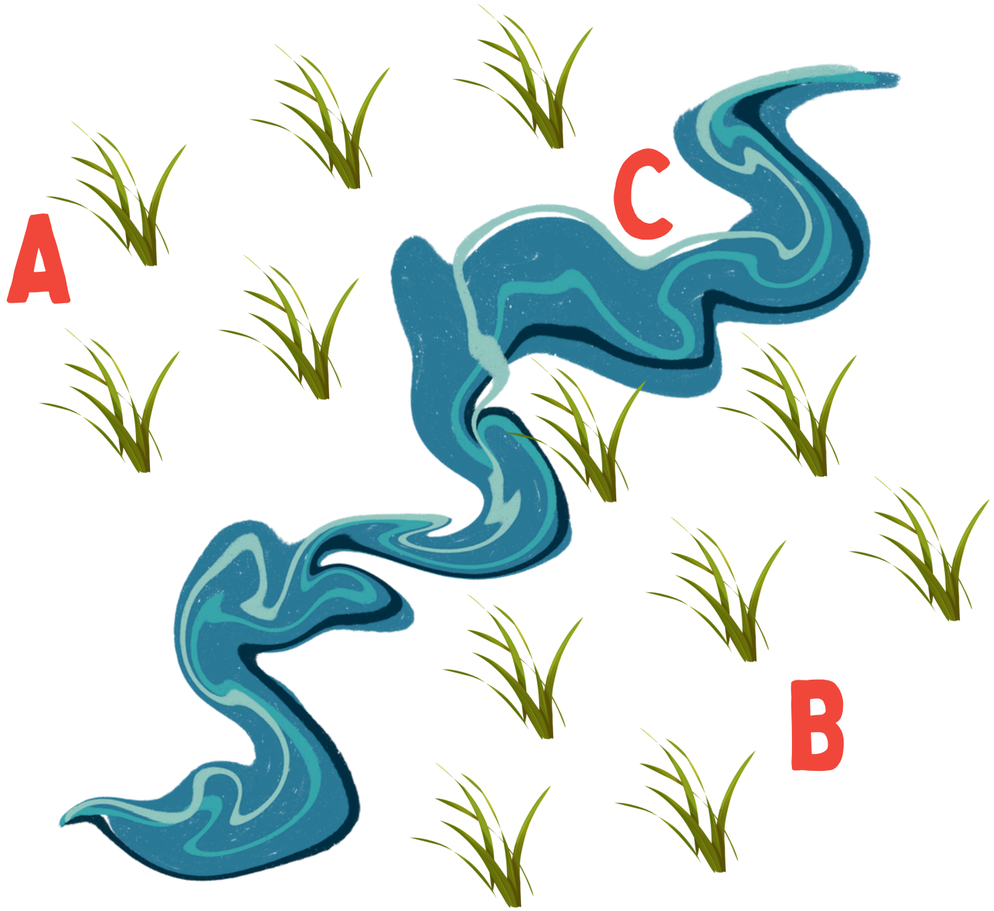
GOES THROUGH 10+ YEARS OF RESEARCH


ROOT WEEVIL


FLOWER WEEVIL


Eric Coombs, Oregon Department of Agriculture, Bugwood.org
ROOT MOTH

BE STRATEGIC WHEN PULLING!



WHY ARE THESE STUDENTS PULLING ALONG THE TRAIL?

WEBSITE & RESOURCES:

agr.mt.gov/Pull-Your-Share

QUESTIONS?

CONTACT:

GENERAL EMAIL:

agrweeds@mt.gov

LORI LEAF
(WEST)

MEGAN HOYER
(EAST)