HOW DOES INDAZIFLAM CONTROL INVASIVE ANNUAL GRASSES?

Invasive Annual Grass Technical Transfer Partnership
www.invasivegrasses.com/tech-transfer

WHAT IS INDAZIFLAM?

Indaziflam is a pre-emergent herbicide used in rangeland systems to control invasive annual grasses.

HOW DOES INDAZIFLAM WORK?

Indaziflam inhibits the development of new roots. It moves into the soil about ½ inch, the depth of seedling root development. This is called the "indaziflam zone". Indaziflam's mode of action is very effective on newly-germinating seedlings because they are unable to acquire resources without roots ①.

Plants that are established when indaziflam is applied already have roots below the "indaziflam zone" ② These plants are generally unaffected by indaziflam ③.

Indaziflam must reach the soil surface to work. Standing vegetation can intercept active ingredients. Targeted grazing or mechanically reducing standing vegetation prior to application may help reduce interception ④.

APPLICATION TIMING IS IMPORTANT

Because indaziflam is only active on root tissues, it must be in the soil prior to annual grass germination and emergence. May or June treatments in the prior year have a higher likelihood of success than treatments in August, September, or October when using indaziflam alone (but see more timing information **here**) ⑤.

Sufficient precipitation is needed to move the herbicide into the soil: ¼ to ½ inch within several weeks of application. This may affect the time of year when application is most effective ⑥.

Treatments containing other active ingredients (such as imazapic, rimsulfuron, or others) increase the consistency of first-year control – especially when those applications occurred in later summer or fall ⑦.

PLANT COMMUNITY RECOVERY POTENTIAL AFFECTS LONG-TERM SUCCESS

"Recovery potential" refers to the ability of desirable plants to establish in the treated area ⑧. Sites with high recovery potential have established desireable plants at the site before treatment. In the long-term, desired species may reestablish through the existing seedbank, seed dispersal, or reeseeding efforts.

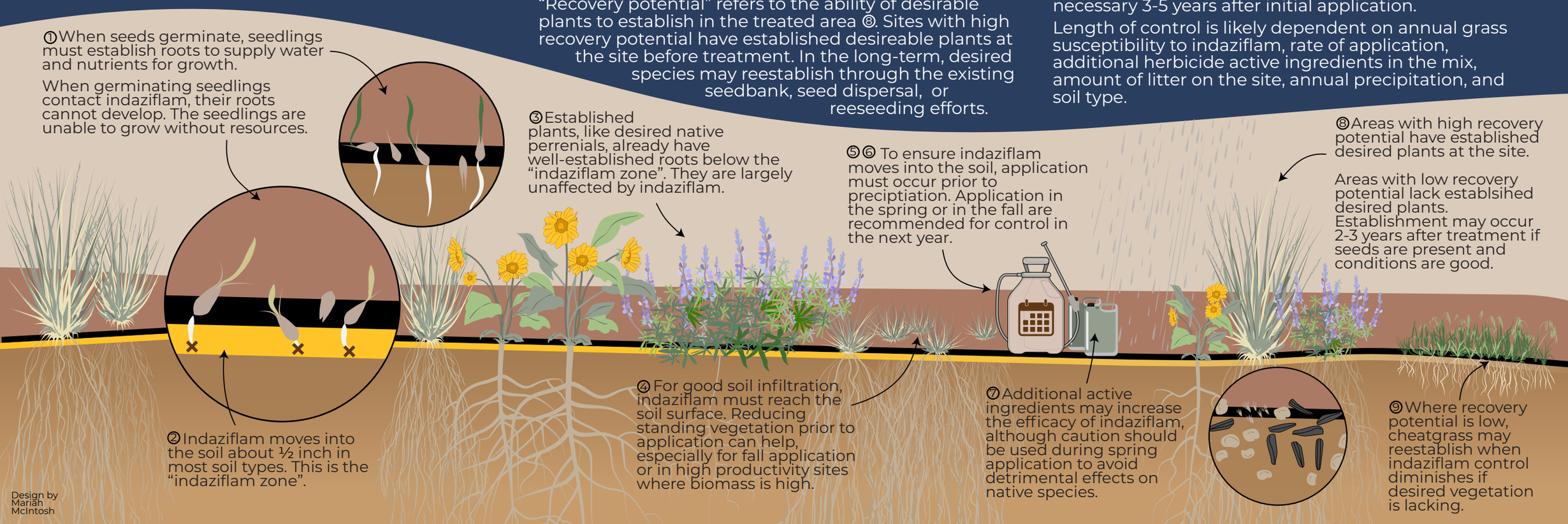
Successful germination and establishment may occur if good conditions occur once indaziflam is no longer in the soil, at least several years after treatment. As such, recovery potential may be lower in sites where reestablishment is necessary.

Consider prioritizing sites with high recovery potential, as success is more likely. In sites with low recovery potential, annual grasses may return if desired vegetation does not establish ⑨. In this case, consider taking other actions to reestablish desired vegetation instead of using indaziflam.

HOW LONG WILL CONTROL LAST?

A successful application is likely to control annual grasses for several years. In a very successful treatment, the on-site annual grass seed bank may be depleted by a single application. This is likely the exception and not the rule, so follow up applications will likely be necessary 3-5 years after initial application.

Length of control is likely dependent on annual grass susceptibility to indaziflam, rate of application, additional herbicide active ingredients in the mix, amount of litter on the site, annual precipitation, and soil type.



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