The Impact of Weeds in Riparian Areas

Invasive weeds and disturbance-caused plants can cause havoc in riparian areas. If left uncontrolled, they can eventually take over riparian zones, creating a vegetation community of just one or two species. The result is:

- Reduced structural and habitat diversity for wildlife and livestock.
- Poorer forage for livestock and wildlife as most weeds are unpalatable and some are toxic.
- Increased erosion, run-off and bank instability as most weed species lack deep, binding root systems compared to the natural riparian plants they replace.
- Reduced ability to perform natural ecological functions and lower resilience to natural disturbances such as floods and fire.

What is a Weed?

The Weed Control Act of Alberta designates weeds into three categories:

**Restricted Weeds**
By law, restricted weeds must be eradicated because of their highly competitive nature. They pose a serious threat to agriculture and the environment because they spread rapidly and are difficult to control.

**Noxious Weeds**
Noxious weeds have potential for rapid spread and can cause severe crop losses resulting in economic hardship. By law, weeds in the noxious category must be controlled to prevent their spread.

**Nuisance Weeds**
Nuisance weeds are the most common weeds and are usually widespread across the province. They can cause economic losses, but are so biologically suited to their environment that they cannot be effectively eradicated.

For Riparian Health Assessments: Restricted and noxious weeds are generally called invasive plants. Nuisance weeds are mostly categorized as disturbance-caused undesirable plants.
Weeds and Riparian Health Assessment and Inventory

Riparian health assessment helps producers and communities to determine the "health" or function of their riparian areas. Not only can a riparian health assessment provide a state of the environment report to answer "Where are we at?", it can be very useful to assist in making informed management decisions and monitor changes in the future to address the question: "Did we get there?"

Part of any riparian health assessment includes an evaluation of the amount of both invasive plants and disturbance-caused undesirable plants present on the site.

Invasive plants are typically non-native species that can cause economic or environmental harm. They are generally aggressive and hard to remove once established. They include most noxious and restricted weeds.

Disturbance-caused undesirable plants includes most nuisance weeds, as well as many other plant species that respond to site disturbance. Disturbance-caused undesirable species include native and non-native species that tend to increase with site disturbance, and are regarded as undesirable because they do not perform optimal riparian functions (e.g. provide deep-binding root mass for bank protection). Such site disturbance is often linked to a downward trend for plant communities from the potential natural community, and reduced riparian function or "health".

Invasive and Disturbance Plant List Available

The Cows and Fish program has developed a comprehensive list of invasive weeds and disturbance-caused undesirable plants for use in riparian health assessments and inventory. This list is a tool that landowners, resource managers, and communities can use in understanding riparian health assessments and in examining their own riparian areas. Copies of this list are available from the Cows and Fish offices (see contact information below).

Common Invasive Plants

- Tansy
- Perennial Sow Thistle
- Ox-eye Daisy

Common Disturbance-caused Undesirable Plants

- Dandelion
- Foxtail Barley
- Common Burdock

When conducting a riparian health inventory, a standard list of invasive and disturbance-caused undesirable plants is used to ensure consistency and accuracy.

Working with Producers and Communities on Riparian Awareness

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