



# ASB Update July 2020



Within M.D. of Acadia #34, the Agricultural Service Board (ASB) has a duty under the Weed Control Act to appoint weed inspectors and enforce the control of noxious species, and the eradication of prohibited noxious species within our municipal borders. While the Agricultural Fieldman has the ability to issue weed notices, it has been preferred within the M.D. of Acadia No. 34 to find a joint resolution with the landowner for the

control of noxious weeds. It is a goal within the M.D. of Acadia No. 34 to get control of the larger infestations and return the weed management back to landowner control as quickly as possible.

Leafy spurge is deemed noxious under the Weed Control Regulation, meaning it must be controlled. Leafy spurge is the most aggressive noxious weeds our Agricultural Service Board has ever encountered. It originates from Europe and Asia, probably being introduced to Canada as a crop seed contaminant. What makes this weed so invasive is its creeping root system, which can extend up to 4.5 m laterally and 9 m deep. However, it also reproduces by 2 mm smooth, oblong seeds housed in seed pods that when dry, explode, shooting 130,000 seeds up to 5 m from the parent plant. All parts of this plant contain a milky white latex that can poison livestock and cause human skin irritation.

Leafy Spurge isn't picky about where it establishes and adapts to a wide variety of conditions. Because of this we inspect the riverside portions annually to prevent spread downstream, all entries to and from the Municipality, and the Municipality's portion of the Kennedy Creek. A combination of backpacks, truck hoses and biocontrol beetles have been used in control efforts. In large hay infestations and rugged coulees, quads and trucks may be used to spot spray, however the dense trees and rugged terrain pose unique challenges with a very small staff. This season we developed a good relationship with Alberta Transportation and they sprayed the 41 Highway with bigger and more efficient efforts planned for next season.

Infested hay fields have been getting harvested for decades, fed in other locations, and therefore spreading exponentially year after year. While this weed is toxic to cattle, it is likely being avoided or blended in quantities low enough to prevent widespread toxicity, as no deaths have been reported to us thus far. However, it is suggested that up to 42% of seeds ingested by cattle remain viable after digestion.

While this letter is aimed at control of leafy spurge, there are multiple infestations, mostly riverside, of prohibited noxious Russian knapweed. Species deemed prohibited noxious by the Weed Control Regulation must be eradicated. While this weed is rather invasive, once found it is easily controlled with herbicide. This is in great contrast to the creeping rooted leafy spurge.

Other small isolated patches of noxious weeds that have been identified within the municipality include burdock, common tansy, baby's breathe, black henbane and yellow toadflax.

## **Going Forward:**

It is very important to the Agricultural Service Board that the Red Deer River and creeks be protected from the leafy spurge infestation, as this would be a major source of downstream spread throughout the M.D. of Acadia #34 but also into Saskatchewan and across Canada.

In hard to access areas such as rugged coulees and densely treed areas, control options are limited. Tordon 22k is a very effective herbicide for leafy spurge but it is very mobile in the soil and has a long residual effect that can prevent broadleaf emergence for years. Trees are very susceptible to this herbicide and can be permanently damaged or killed if application occurs near them. With these attributes and the struggle of accessibility of equipment in these rugged areas, it is recommended to use biocontrol agents, in addition to herbicide. While *Apthona lacertosa* beetles are one option, sheep and goats can graze 40-50% and 60-80% respectively, of their diets in leafy spurge without suffering the toxic effects of the milky sap. Grazing for multiple years has been shown to deplete root reserves and significantly reduce the populations over time. As the cattle typically grazing in this area do not consume leafy spurge, the addition of goats and/or sheep could be a mutually beneficial addition to your ranching enterprise.

In terms of easy to access tame grass and hay fields, if the infestation is small and contained, we recommend herbicide applications targeted to the area. If the infestation is widespread, the obvious solution is to stop tame grass or hay production and convert these fields to crop for multiple years with an effective herbicide rotation that targets leafy spurge. Due to the nature of the Municipality we would recommend minimum tillage to prevent soil erosion in our sensitive soils. While we aim to work with producers, the Agricultural Service Board reserves the right to issue Weed Control Notices that may require annual cropping, herbicide applications or burning of infested bales.

Sensitive native prairie infestations are of great concern to our Agricultural Service Board. These infestations would benefit from biological controls (beetles and/or sheep and goat grazing) with spot spraying of herbicide as well. Conservation of native prairie is a priority in the Municipality.

Landowner participation in this initiative is required to continue. Weed control is the responsibility of the landowner or leaseholder. The Agricultural Service Board has spent considerable amount of time, money and resources to keep these infestations from affecting neighboring parcels, with limited budgets and small staff it is difficult to cover an entire Municipality. The Weed Control Act does define the landowner or lessee responsible for infestations. Due to limited resources our control philosophy must change on this topic. At this time, we are expecting an increased level of assistance from producers with the ultimate goal of landowners being responsible for continuing control.

## BABY'S BREATH NOT AN ORNAMENTAL



This perennial reproduces by seed only, making it very important to control prior to seed set. It's deep tap root can extend to 4m, allowing it to access deep groundwater in drought situations and enjoys coarse and/or alkaline soils, allowing it to thrive in the M.D. of Acadia No. 34 and the Special Areas. At the end of each growing season the stem will die off at the crown, creating a tumble weed of huge noxious seed spreading capabilities. New stems will sprout

from the crown each spring. **Prevention:** Simply don't grow this plant as an ornamental! Be wary of any bouquets that utilize baby's breath, as some florists still manage to get their hands on this cheap filler. Landfills, and particularly cemeteries are often major infestation sites because of forgotten bouquet arrangements.

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