

### ***Invasive Species Awareness Week in Manitoba April 23-29, 2023***

The Province of Manitoba has declared the last full week of April as Invasive Species Awareness Week (C.C.S.M. c. 197). The Manitoba Weed Supervisors Association (MWSA) recognizes this week by highlighting just a few of the invasive plants considered to be a significant threat to the landscape of our province. Many of these invasive species are mistaken for wildflowers, but unlike native wildflowers, these species threaten agricultural productivity of both cultivated and non-cultivated land, as well as waterways and natural areas.

The Noxious Weeds Act of Manitoba (NWA) (C.C.S.M. c. N110) requires control or destruction measures for different invasive plants. A comprehensive listing of noxious weeds is found in The Noxious Weeds Regulation, which ranks plants according to their threat levels and specifies the areas of the province to which these levels apply. The Act requires that Tier 1 weeds must be eradicated without conditions. Examples of Tier 1 weeds that are currently negatively affecting Manitoba's ecosystems are diffuse and spotted knapweed, orange hawkweed, red bartsia and Palmer's amaranth and tall waterhemp. Tier 2 weeds are also a significant concern, and include leafy spurge, common tansy, field scabious, and nodding thistle.

The MWSA is comprised of and represents Weed Supervisors who are individually employed by Weed Control Districts formed by one or more Municipalities. Weed Supervisors are authorized through the NWA to ensure problematic weeds are dealt with appropriately on all lands in the districts they cover. Weed Control Districts, first started in 1964, have developed programs to deal with invasive plants such as leafy spurge and red bartsia. Prevention measures, early detection and rapid response by Weed Supervisors are critical for protecting habitats and agricultural land from these types of invasive species.

#### **Tall Waterhemp (*Amaranthus tuberculatus*)**

Waterhemp is native to the U.S. but was not considered a major agronomic problem until the 1980's. Herbicide resistance and changing production systems, including more corn and soybean, reduced tillage and more reliance on herbicides for weed control, favored the "weediness" of this plant. This member of the pigweed (*Amaranth*) family can rapidly take over crop land and significantly decrease yields. The native habitat of waterhemp is wet, low-lying areas, but it grows well in drier areas. It thrives in reduced tillage and no-till environments. Watch for patches to pop up along field edges or near field entrances, along ditches and waterways. The plant typically grows to 5-6 feet tall, with glossy, hairless and more elongated leaves compared to redroot or smooth pigweed. Waterhemp is well-adapted to warm growing temperatures and intense sunlight and is capable of producing up to a million seeds per plant that can germinate over the whole summer. Waterhemp has very tiny seed, (similar to red root pigweed seed), so it is easily transported in equipment, with water and by wildlife, and can be a contaminant in seed lots.

Removing small patches of waterhemp prior to seed set, and destroying the plants, is one of the most effective strategies to eradicate this weed. Tall waterhemp populations can be resistant to multiple herbicide groups, making it very hard to control this weed in field crops. Waterhemp samples in Manitoba have been tested and confirmed resistant to 3 herbicide groups. This has serious implications for local producers.

New populations have been discovered since it was first detected in Manitoba in 2019, with confirmed presence in 16 municipalities as of 2022

#### **Palmer's Amaranth (*Amaranthus palmeri*)**

Palmer's Amaranth is an aggressive, invasive weed native to the desert regions of the southwest US and northern Mexico. It was accidentally introduced to other areas and has devastated crops in the South and Midwest US as it rapidly became herbicide resistant. With the ability to emerge all season, grow 2-3 inches per day and set seed over the entire season this highly invasive weed can drastically reduce crop yield.

Infestations have slowly moved north through contaminated seed, equipment, animal feed and bedding and the digestive tract of wild birds. Palmer's amaranth was first detected in North Dakota in 2018, and is spreading throughout the state. Considered to be the #1 weed in the US, this plant can grow at least 6-8 feet tall and produce one million seeds and heavy infestations can reduce soybean and corn yields by approximately 80-90%.

A member of the Amaranth family like redroot pigweed and tall waterhemp, Palmer's amaranth can be difficult to distinguish from its cousins. Smooth-stemmed like tall waterhemp, its leaves are a little wider, more like redroot pigweed, but can be distinguished by the long petiole (stem-like structure that attaches the leaf to the main stem). Petioles of Palmer amaranth are longer than the leaves, while its cousins have shorter petioles. Long, snaky seed heads that can be up to 2 feet long are a distinctive feature of Palmer's amaranth. Identification is crucial, and removal of individual plants and small patches is critical to prevent this weed from establishing in our province. Two plants were found in Manitoba in 2021. A single plant was found in 2022 in the same area

### **Nodding thistle** (*Cardus Nutans*)

Nodding thistle is an invasive species accidentally introduced to Manitoba over 100 years ago as contaminant in forage seed. Nodding thistle grows as a biennial (two-year growth cycle), invading dry areas such as heavily grazed rangeland, coarse soils, etc. Its stalks and leaves have strong sharp spines which can injure livestock. Animals will avoid it and graze elsewhere, giving the plant a competitive advantage. Nodding thistle reproduces only by seed. The first year the seedling will develop into a large flat rosette and will need to overwinter, then continue to grow to maturity the following growing season.

Usually, the rosettes require adequate snow cover to survive the winter, that's why nodding thistle patches are generally found in ravines or bluffs within a pasture.

As seed is its only means of spread, the first step is to cut down the flowering stalks and destroy the seed heads. Later in the fall, once the rosettes have established, (late September) apply a broadleaf herbicide to prevent maturation and seed set the following year. Continue checking for and spraying new rosettes as they develop throughout the fall. This will provide you a head start on control for next year, but it's still important in the spring to look for and treat any more rosettes that you may find before they start to form flowering stalks.

Nodding thistle is found primarily in South Western MB.

More information on Invasive plants either threatening or already present in Manitoba can be found in The Noxious Weeds Act (C.C.S.M. c. N110) and the Noxious Weeds Regulation (Man.Reg.42/17), by contacting your local Weed District or at the MWSA website, [www.mbweeds.ca](http://www.mbweeds.ca)

Images Credits:

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Palmer's Amaranth: credit Joe Ikley, NDSU

Nodding thistle: credit Grant Shewfelt, Argyle Lorne Weed Control District

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Tall Waterhemp



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Nodding Thistle



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