

Nova Scotia Report to the CWSS/SMC
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Legislation

Agricultural Weed Control Act and Regulations

Nova Scotia is still in the process of updating our Agricultural Weed Control Act and Regulations. Risk assessments for currently listed noxious weeds have been written and are in the final stages of revision by the Weed Control Advisory Committee.

Agricultural Weed Control Act:

<https://nslegislature.ca/sites/default/files/legc/statutes/agrcweed.htm>

Weed Control Regulations:

<https://novascotia.ca/just/regulations/regs/WControl.htm>

Invasive Plants

Noxious Weed Mapping Initiative

Nova Scotia has 10 weeds that are currently listed as noxious weeds under the Agricultural Weed Control Act. The department maintains and updates a database of locations for each noxious weed sighting in the province.

Wild Chervil Control Program

Wild Chervil (*Anthriscus sylvestris* (L.) Hoffm.) is a noxious weed under the Agricultural Weed Control Act. It is an aggressive competitor in grass forage which, if left unchecked, will readily spread, forming dense patches, void of desirable grass species, which increases susceptibility to erosion of dyke structures on our agricultural marshlands. A summer assistant was hired to work under the direction of the Plant Protection Coordinator to assist in control initiatives on Agricultural Marshlands and landowner education from 2017 to present. Our control initiative is an integrated Pest Management approach, which begins with monitoring from the onset of spring, followed by a combination of mechanical and chemical control methods. Results have been promising and work will continue next year.

Nova Scotia Invasive Species Council

The Nova Scotia Invasive Species Council held their invasive species conference in February 2023. Topics addressed included: response to aquatic invasive species, review

of invasive species program, species at risk, integrated pest management plan and management strategies in Nova Scotia forest ecosystem.

Invasive Weed Calls

A significant number of calls are received each summer regarding weeds of concern. Most calls are dominated by two weeds: cow parsnip and wild parsnip. Wild parsnip has been spreading quite quickly around the province in recent years. Wild parsnip has not been reported to be a significant issue in agricultural systems but is frequently seen roadside in ditches and on landowner properties. A few municipalities in the province are planning to, or in the process of developing guides and management plans for invasive plants. We are hoping to have a pilot project with the Nova Scotia Department of Public Works – for controlling wild parsnip along the roadside. The province has a fact sheet available for more information on wild parsnip:

https://novascotia.ca/agri/documents/NoxiousWeeds-Wild_Parsnip.pdf

Atlantic Weed Tour

Nova Scotia Department of Agriculture hosted the 2023 Atlantic Weed Tour on July 21st. It consisted of farm visits examining , weed control field trials, innovative methods of weed control, and an innovative biobed system to manage sprayer rinsate. There were 25 participants which included research teams from Dalhousie Agricultural Campus and Agriculture and Agri-Food Canada in Charlottetown, and the Provincial Minor Use Coordinator from PEI.

Weed Survey

Animal and Crop Services staff have continued with the annual, rotating weed survey initiated in 2017. This information will give us a snapshot of current weed flora and can determine changes in species composition and densities over time.. This will help identify possible development of herbicide resistance and research needs. It will also help in assessing management practices when developing weed management recommendations for extension personnel. To date, corn, soybeans, strawberries carrots and onions, apples and forage have been surveyed. In 2023, soybeans was surveyed in over five counties in Nova Scotia.

Weather/Crop Reports

Nova Scotia was plagued by extreme weather events in 2023 impacting most, if not all sectors of agriculture. In early February, a polar vortex hit the province and impacted many of the province's soft fruit producers. The growing season started out warm and dry, giving weeds a head start in the spring. The province suffered from forest fires in the spring quickly changing to an unprecedented wet and rainy summer through June and until September impacting the growth of some crops and creating challenges with harvest. Many areas in the province received more than double the average rainfall in June, July and August. The early fall experienced warm days for most of Nova Scotia.

For much of the growing season, degree day accumulations were slightly above the 5- and 10-year averages. Hurricane Lee arrived in Nova Scotia in September and caused some impact to producers, but significantly less than Fiona which arrived in Nova Scotia in 2022.

Minor Use

A request for label expansion of Clethodim for grass control in wild blueberry management has been submitted and is waiting for approval. In the coming weeks, growers and commodity associations will be asked to identify priority pests and preferred solutions in preparation for the National Priority Setting Meeting. PMRA has been reviewing many pesticide products, and the possible loss of any herbicide may occur or there may be regulatory restrictions applied to the use pattern of herbicides. The risk of losing herbicide products due to either regulatory or resistance can be devastating to minor crops grown in Nova Scotia.

Branch/Department and Personnel Updates

Deney Augustine Joseph, has been appointed as the new Plant Protection Coordinator/Provincial Minor Use Coordinator (PMUC) replacing Laura Anderson.

Challenges/Research Needs

Field crops

The 2023 season was a challenging year for weed management in some field crops including corn and soybeans. Due to excess rain and saturated soils, some producers were unable to get into the field to spray an in-crop herbicide so had to rely on pre-plant and residual herbicide applications to carry through to canopy closure. The corn crop in particular was stressed in parts of the province where significant rainfall caused nitrogen leaching and uptake issues, making the crop less competitive. An uptake in acreage being cover cropped after cereal harvest should prove to be an excellent tool for weed management when it comes to winter annual weeds.

Horticulture crops

Canada fleabane is becoming an increasing issue in many horticulture crops. There have been no indications to suggest glyphosate resistant to date, although this is something on the radar of extension specialists.

Cow cockle is becoming an increasing challenge in June bearing strawberry fields since there are limited chemical control options.

Wild Blueberry

This spring's weather brought challenges to wild blueberry growers when pre-emergence herbicides were needed timely. High wind gusts and periods of rain hindered growers from applying herbicides. Some sprayings were conducted during high wind conditions and the control results were poor. Another big weather challenge was that there was excessive moisture throughout the entire summer which increased weed pressure and competition with wild blueberries during this growing season. Too much moisture also encouraged weeds to emerge from seed banks, especially in non-crop fields. This year's pesticide supply was good, but prices remained high while berry prices don't look great. We are concerned with weed management in wild blueberry fields for the coming seasons as growers are likely to reduce input (fewer herbicides) when they don't expect good prices to come in a short time. If fields don't get treated with herbicides for a few seasons, the control cost would be higher when growers want to farm or increase their input again, particularly on hair fescue and sheep sorrel, which are two of the most important weeds in wild blueberry fields. As an industry, our main challenges when it comes to weed management are unseasonal weather events increase weed competition, higher input costs and lower berry prices that stop growers from continuing their regular weed management program.

Cover crops

With an increased interest in cover cropping, challenges exist with identifying herbicide programs that are compatible with cover cropping plans or practices. Regional extension specialists are working with growers to help address these issues.

This report was completed with the assistance of Perennia Extension Specialists:

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