New Brunswick Report to the CWSS/SCM

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Legislation

Plant Health Act - http://laws.gnb.ca/en/ShowPdf/cs/2011-C.204.pdf
No pests named and no plans for naming any weeds as pests at this time.

Invasive Plants

The New Brunswick Invasive Species Council was more active in 2020, with regular conference calls, face to face meetings and support for a paid coordinator. The council has shifted focus towards aquatic invasive species with more focus for 'Clean, Drain, Dry' programming and European Water Milfoil as an education target. Identification requests via DAAF were lower than in previous years. Stable funding is needed for the long-term viability of the organization, and it seems to have that stability for the short-term.

Weather/Crop Reports

Rainfall was well below normal for most regions from May to August, while crop heat units were normal to slightly higher than normal. Rainfall received was very sporadic, so there were significant field to field variability as a result. Early season moisture was adequate, and any growers who had early planted crops had activating rain for pre-emergent herbicides. Late herbicide applications were not as fortunate. Many crops suffered from drought-related stresses and associated yield affects. Growers noted higher weed pressures, due to lower herbicide activity or a single flush of weeds returning once moisture arrived.

Wild blueberry: Dry conditions combined with an early spring frost resulted in lower than average yields. Concern with increasing populations of hawkweed, cow wheat, spreading dogbane and sheep sorrel. In need of crop year weed management tools, as control not lasting until end of harvest.
Cranberry: Irrigation and harvest water stocks was an issue, but overall yield was good. Growers adopting mesotrione as base weed control treatment, with favourable overall performance. Interest in having US mesotrione rates in Canada. Need for alternative weed control products for resistance management, options for moss control and weed control for organic production.
Strawberries: Groundsel and toadflax most difficult weeds. Need new herbicide options and evaluation of Group 14 dormant applications, as multiple products now registered. Handweeding labour becoming harder to access.

Apples: Considering weather, yield and quality were good. Expansion and renovation in industry. Focus on non-herbicide weed control methods (mulches, mechanical) in conjunction with herbicide application.
Potatoes: Sow thistle, lamb's quarters, pigweeds, mugwort, cleavers and marsh hedge-nettle reported issues. In need of new chemistry as industry relies on metribuzin and linuron for weed control. One-pass hilling is common, putting more pressure on PRE herbicide effectiveness. Control of volunteer plants and weed resistance to herbicides are concerns.
Vegetables: Vegetable production interest increasing, based on COVID-19 response. In need of new herbicide options. Linuron decision for potato, carrots, parsnip and asparagus appreciated. Increased interest in CSA programs and more diverse crop varieties. Hairy galinsoga significant issue for some producers.
Field Corn: Acreage static, shift towards more forage corn due to weather. Most RR growers using a single glyphosate application, although some adopting residual herbicide. Witchgrass, barnyard grass and smooth crabgrass escapes noted. Application timings remain problematic for some growers. Yellow evening primrose, field horsetail and fleabane species are increasing.
Soybean: Acreage increasing. Commercial interest for non-GM types but has weed control challenges. Vetch is a common issue for conventional producers.
Cereals: Sow thistle, cleavers, barnyard grass, smooth crabgrass, mugwort and phacelia reported as issues. Options for weed management in under-seeded crops required, both post-emergence in spring to control a wider spectrum of weeds and pre-harvest to control the underseeded red-clover.
Pastures/hay: Forage production was severely reduced by drought, and new crop establishment was poor. Smooth bedstraw an issue, although triclopyr can help with control. Witchgrass and barnyard grass issues in establishment years and notice brassica cover crops may be problematic weeds in future forage establishment.
Forestry: Public concern about re-generation practices and glyphosate use. Industry and other partners created website to provide information: www.forestinfo.ca. Most relevant for forestry industry, with background information on glyphosate included.

Minor Use/Research

NBDAAF conducted 17 herbicide trials in 2020, mostly in support of wild blueberry. Specific trials included sheep sorrel control in wild blueberry, hawkweed control in wild blueberry, tank mixes in wild blueberry, goldenrod control in wild blueberry, flazasulfuron screening in wild blueberry, bristly arilia control in wild blueberry, one-pass herbicides for RR corn and herbicide screening in potato production (McCain).

Current minor use gaps include crop year herbicides for wild blueberry production, broadleaf control in cranberry and alternative herbicides for potato production. Interest in sodium bicarbonate for moss/liverwort control.

One active URMULE for use of clethodim in lowbush blueberry. Considering expanding Lontrel application window in lowbush blueberry for hawkweed control; adding sheep sorrel control to the Spartan label in lowbush blueberry; expanding the use rate/applications for Callisto in cranberry and wild blueberry; sodium bicarbonate for moss/liverwort control; herbicides for edible honeysuckle production.

Branch/Department and Personnel Updates

Provincial offices were closed on March 17 due to the threat of COVID-19. Staff worked from home until May 11, when offices were phased back to open for staff, following public health protocols. Offices remain closed to the public, but all other aspects are operating under ‘new normal’ conditions.

The election in September shifted the Legislative Assembly of New Brunswick from a minority position to a majority Progressive Conservative government.

Department still has a compliment of staff in regions to support growers, although roles are shifting. DAAF has an active on-farm extension program, although 2020 was a challenging year with COVID-19 protocols.

Challenges/Research Needs

We pass our deepest sympathy to our colleagues in Nova Scotia, who tragically lost Angela Gourd. Angela was an important part of the regional collaboration on the weeds file and her presence will be missed.

Public discussion and concerns with glyphosate use in the province is mostly directed at the forestry and industrial vegetation uses and was an election issue. Public education and the role/expertise of PMRA may help improve dialogue with the public.

More research on cover crops and weed populations. Better understanding of weediness/control of cover crop species in future rotational years. Both phacelia and brassica covers were potential weeds in New Brunswick crops in 2020.

Additional herbicide screening required in wild blueberry industry, with weed control in the crop year a major need. New herbicide tools are helping weed control within sprout year, but the gap for management tools in the crop year is increasing.

Additional weed control tools for potato production required. Industry is rapidly adopting one-pass hilling system, which places additional pressure on late season weed control with reduced mechanical weed control.

Additional weed control tools are required within cranberry industry, especially for broadleaf weeds.

Weed control in vegetable crops always a challenge, including access to relevant research results and integration of multiple techniques.

Evaluation of various Group 14 registrations as dormant sprays in strawberry would be beneficial, many options and potential differences in weed control and crop tolerance should be evaluated.

Herbicide screening and weed control recommendations needed for edible honeysuckle production. In general, crop required more agronomic research.

Plenary Session Topic – Weeds and Invasive Plants in Canada: Past, Present and Future

New Brunswick is one of the few provinces that does not have an active Weed Control Act, but we do have the authority to name Plant Pests if the need arises. The New Brunswick Invasive Species Council (https://www.nbinvasives.ca/) is the organization to bring together the stakeholders within this area.

CWSS Website Links

Links to Update/Include – Management Resources section of CWSS Website

Weed Control Act - http://laws.gnb.ca/en/ShowPdf/cs/2011-C.204.pdf
Wild Blueberry Weed Management Guide - http://www2.gnb.ca/content/dam/gnb/Departments/10/pdf/Agriculture/WildBlueberries-BleuetsSauvages/C420-E.pdf
Strawberry Weed Management Guide - http://www2.gnb.ca/content/dam/gnb/Departments/10/pdf/Agriculture/SmallFruits-Petitsfruits/StrawberryIPM.pdf

Integrated Pest Management Images
New Brunswick Department of Agriculture, Aquaculture and Fisheries
Potato Topkilling
Potato Weed Control