A Crop Diagnostic School held this past July 9 to 19 at the University of Manitoba’s Carman Research Station offered agronomists and producers the opportunity to refine their diagnostic skills. During the two-week period, approximately 400 participants, involved in field scouting and assessing crop health, observed a simulated rainfall and snowmelt demonstration. At a prototype learning station, a rainfall simulator showered soil trays representing different farm field scenarios, producing murky runoff. Meanwhile, clean-looking runoff dripped from a snowmelt simulator. Agri-Environment staff used the demonstrations to explain differences between types of runoff generated during the annual spring snowmelt and the growing season.

Participants learned that the muddy water produced by the rainfall simulator contained two substances that affect water quality. Those substances were soil particles and phosphorus that is mainly attached to the soil particles (particulate P). More surprising was the fact that the seemingly clean snowmelt runoff hid an invisible menace in the form of phosphorus (P) actually dissolved in the water. Because in most years the majority of runoff in Manitoba occurs during spring snowmelt, this means water quality is most affected by this form of runoff.

As part of Crop Diagnostic School lessons, participants learned about practices employed by local farmers to mitigate P transfer from agricultural land to surface water. The practices are part of a method known as the 4Rs of Nutrient Stewardship, which includes advice on selecting the Right Rate, determined through soil testing, and the Right Place, achieved by banding fertilizer so plants use it efficiently and risk of runoff is minimized.

Participant comments about the learning experience were positive. This visual, interactive approach to extending soils and agri-environmental information remains popular and highly effective.
Conservation Auction Benefits Dennis Lake Environment

With funding from Growing Forward, Manitoba Agriculture, Food and Rural Initiatives has partnered with Manitoba Conservation and Water Stewardship and the East Interlake Conservation District (EICD) to pilot and evaluate a conservation auction. Conservation auctions allow landowners to place bids to provide ecological goods and services (EG&S) for a specified area. Like conventional procurement auctions, participants submit bids indicating the price they are willing to accept for their EG&S for a specific area.

The bids are ranked based on the environmental benefit provided for the price. The goal is to provide the maximum amount of environmental benefit with the available budget. This conservation auction was targeted to landowners in the Willow Creek sub-watershed to secure EG&S and address surface water management. The objective is to support the EICD goals included in the Willow Creek Integrated Watershed Management Plan:

- improving the drinking and surface water quality
- improving the wildlife and fish habitat
- maintaining the soil and shoreline

Landowners within the Willow Creek sub-watershed could choose from three options:

- sign an agreement to adopt a beneficial management practice (BMP) for a minimum of 10 years
- sign a permanent conservation agreement
- sell their land to the EICD

Landowners developed land management plans with EICD staff and submitted bids with their cost to adopt the land management plans. Successful landowners receive a one-time payment for the amount of their bid, once the proposals and contracts are approved. All bids were ranked using an environmental benefit index (EBI) to maximize the environmental benefits secured with the available budget.

Of the 19 management plans submitted, 15 were then submitted as bids. Using the EBI scores, four projects were accepted for funding and two were provisionally accepted, pending further negotiations. Evaluation of this conservation auction indicates the auctions are a valuable mechanism to ensure value for money invested in the landscape.

Important Dates

Soil Management Field Clinics

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<td>August 13</td>
<td>Portage, Canada-Manitoba</td>
<td>Canada-Manitoba Crop Diversification Centre</td>
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<tr>
<td>August 15</td>
<td>Carberry, Canada-Manitoba</td>
<td>Canada-Manitoba Crop Diversification Centre</td>
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<td>August 21</td>
<td>Winkler, Canada-Manitoba</td>
<td>Canada-Manitoba Crop Diversification Centre</td>
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There is a free Composting Webinar the first Wednesday of each month. Please contact van.doan@gov.mb.ca for more information.