



COVER CROPS SELECTOR TOOL USER GUIDE

<http://decision-tool.incovercrops.ca/>

Objective: The Eastern Canadian Cover Crop Selector tool is a web-based resource that provides informed recommendations about appropriate cover crops to be used in vegetable production in Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island

1. GETTING STARTED

SELECT A LANGUAGE

Select English or French from the dropdown menu

SELECT A REGION

Choose between Ontario, Quebec, New Brunswick, Nova Scotia, or Prince Edward Island. After selecting a province, find your desired county

SELECT A CROP TYPE

Identify your crop as a vegetable or field crop and then find your crop in the dropdown menu below

CHOOSE A DESIRED PLANTING AND HARVEST DATE FOR YOUR CROP

Use the calendar menus to select a planting date and anticipated harvest date for your vegetable/field crop. Dates will appear on the display as vertical blue lines

2. REFINING YOUR COVER CROP CHOICE

After establishing your region and cash crop, potential cover crop species or mixes suited for your selection will be displayed in the **Cover Crop** column. To find the ideal cover crop for you, identify your soil type and goals using the following categories:

SOIL

Characterize your soil based on drainage speed/conditions and flood conditions. A checkmark (✓) will be displayed beside cover crops suited to the specified soil conditions, while crops not supported by the soil conditions will appear beside an ✕ and are not advised to be planted.

GOALS AND BENEFITS

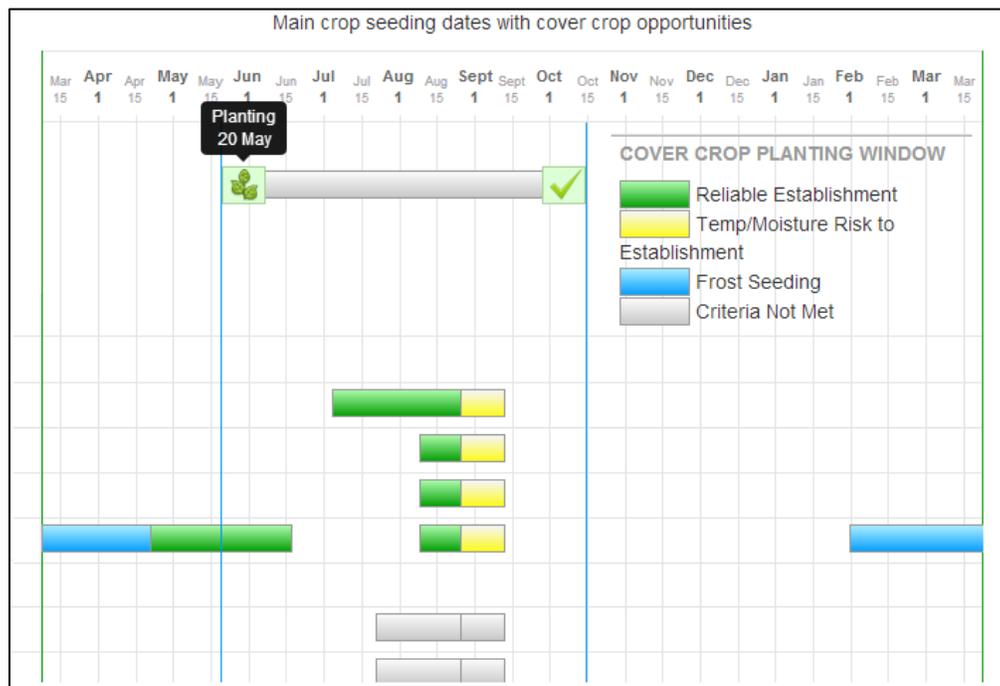
Up to 3 goals or benefits can be selected to find the optimal cover crop.
Click the pencil icon(s) to add ratings in the following categories:

- Legume N Source
- N Scavenger + N Holder
- Organic Matter/Soil Builder
- Compaction Fighter
- Water Erosion Fighter
- Wind Erosion Fighter
- Weed Fighter
- Winter Survival
- Winter Kill
- Quick Growth
- Lasting Residue
- Quick Residue Breakdown
- Acts as a Potential Biofumigant
- Forage Harvest
- Grain/Seed Harvest Value
- Interseed ability with Cash Crop

After selection, each cover crop will receive categorical ratings between 0 stars (poor) and 4 stars (excellent). If the cover is ranked as 0 (poor) or 1 (fair), this drops the crop from the list of suitable options as indicated by grey text colour.

Checking the box marked **Hide Crops that are not suitable for planting** will remove unsuitable cover crops from the list.

3. USING THE COVER CROP OPPORTUNITY GRAPHIC DISPLAY



After all data is input, the graphic display will provide several points of data including dates of reliable establishment, climate considerations, and frost seeding windows where applicable.

4. PICKING THE RIGHT COVER CROP FOR YOU

Once you've selected a cover crop, click on the link on the cover crop name for a full infosheet. On this page you can see comprehensive information on planting, termination methods, performance roles, advantages and disadvantages, Additional links to various on-line resources are also provided.

Background: This project was led by Dr. Laura L. Van Eerd at the University of Guelph Ridgetown Campus and involved collaborating with over 50 people in 7 teams including web developers, climatologist, and one team of cover crop experts in 5 provinces: Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island. Regional weather data from 20-50 locations in each province were collected, validated and processed to provide estimates of reliable cover crop planting dates based on the user's location. Each provincial steering committee was comprised of academia researchers, production specialists, non-governmental organizations, growers, industry and government representatives with cover crop expertise. Teams identified cover crop species and mixtures that are recommended for use in each province. The experts gathered scientific information on each cover crop in terms of agronomic characteristics, management practices, roles, and performances as well as advantages and disadvantages. Data were compiled into a database and developed into a selection tool for growers to use in their decision process. The steering committees met multiple times to collect and validate cover crop data and tool functionality. Overall, it is expected that this tool will increase grower knowledge on cover crops, thereby increasing adoption of this practice and concurrently reducing pesticide use and risk.

Accreditation: The Eastern Canadian Cover Crop Selector tool was made possible with the financial support of the Pesticide Risk Reduction Program of Agriculture and Agri-Food Canada's Pest Management Centre. This tool was based on the Midwest Cover Crop Council (MCCC) Cover Crop Decision Tool (<http://mcccdev.anr.msu.edu/VertIndex.php>) which was based on the Sustainable Agriculture Research and Extension (SARE) book *Managing Cover Crops Profitably*, 3rd edition (<http://www.sare.org/publications/covercrops/covercrops.pdf>). The Ontario MCCC field crop cover crop decision tool was supported by matching funding from Agri-Food and Rural Link's Knowledge Translation and Transfer grant.

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Disclaimer: The information in this tool has been provided for educational and training purposes only. Every effort has been made to ensure that the information is accurate and relevant. Project leads, collaborators, their affiliations and Agriculture and Agri-Food Canada do not assume liability for errors, omissions or representations, expressed or implied, contained within the tool. The selection tool was designed to be a dynamic knowledge base of cover crop information. Users are advised to contact their provincial crop specialist or refer to provincial production guides for further details. © 2014. The views expressed in this report are not necessarily those of Agriculture and Agri-Food Canada or the Government of Canada.