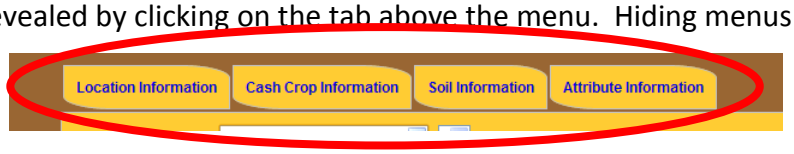
Instructions for using the Field Crop Decision Tool

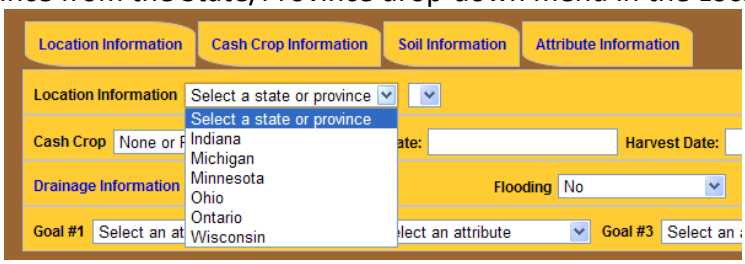
Hiding and Revealing Menus

At any time a menu can be hidden or revealed by clicking on the tab above the menu. Hiding menus allows for more of the chart to display.



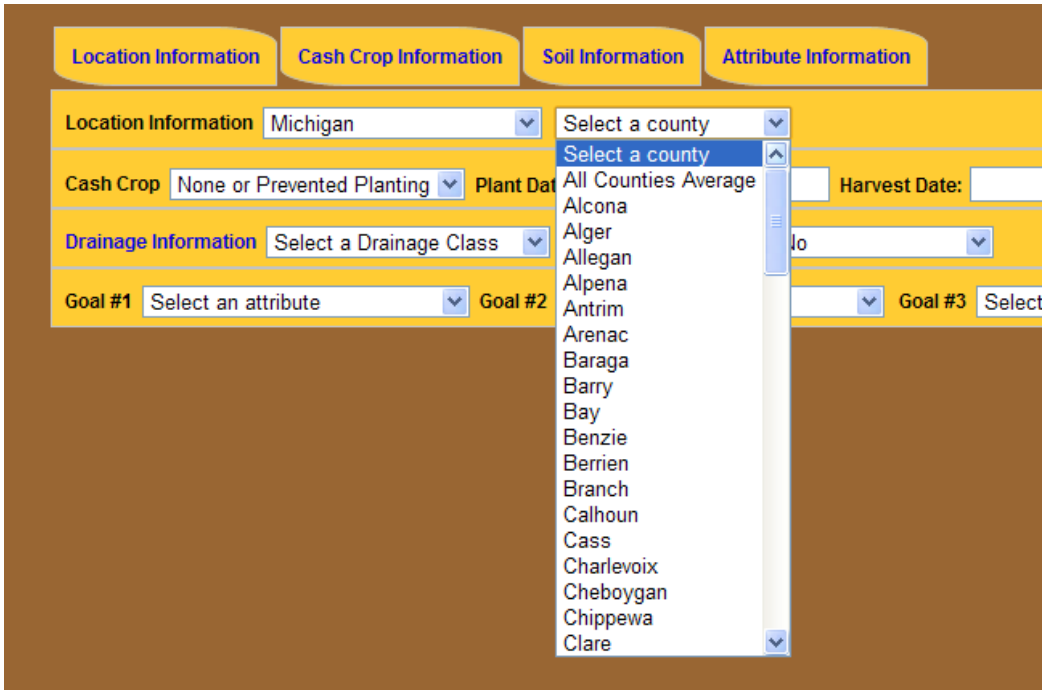
Step 1 – Location Information

Select your state/province from the State/Province drop-down menu in the Location Information box.

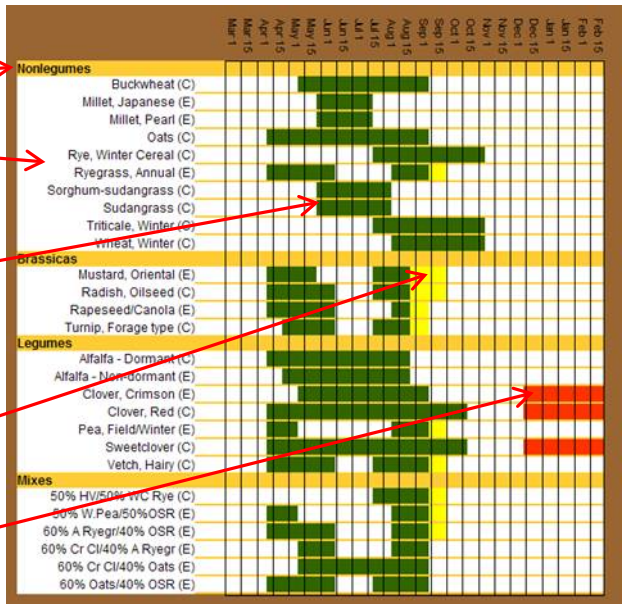


Step 2 – Location Information

Enter your county or All Counties Average from the County drop-down menu in the Location Information box. Note: All Counties Average displays the average seeding dates for all counties within the state or province.



After completing steps 1 & 2, the seeding chart shown here displays the following information:



Cover Crop Categories

Cover Crop Names

Seeding Dates:

Green Bar – Reliable Establishment

Planted during these periods, a cover crop should attain sufficient growth to provide benefits.

Yellow Bar – Freeze Risk to Establishment

Planted during these periods, a cover crop will grow but an early freeze may limit growth and benefits.

Red Bar – Frost Seeding

When conditions are right, a cover crop can be frost seeded during this period.

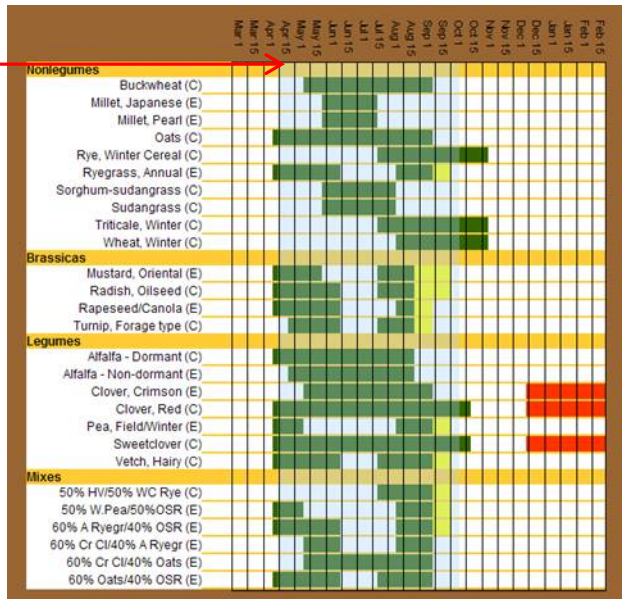
All other boxes are optional, the more information you include the better your cover crop options will be screened to meet your needs.

Step 3 – Cash Crop Information (optional)

Select the cash crop from the drop-down menu.

Select the anticipated cash crop planting and harvest dates from the calendars provided.

The area shaded in blue is the cash crop growing period.

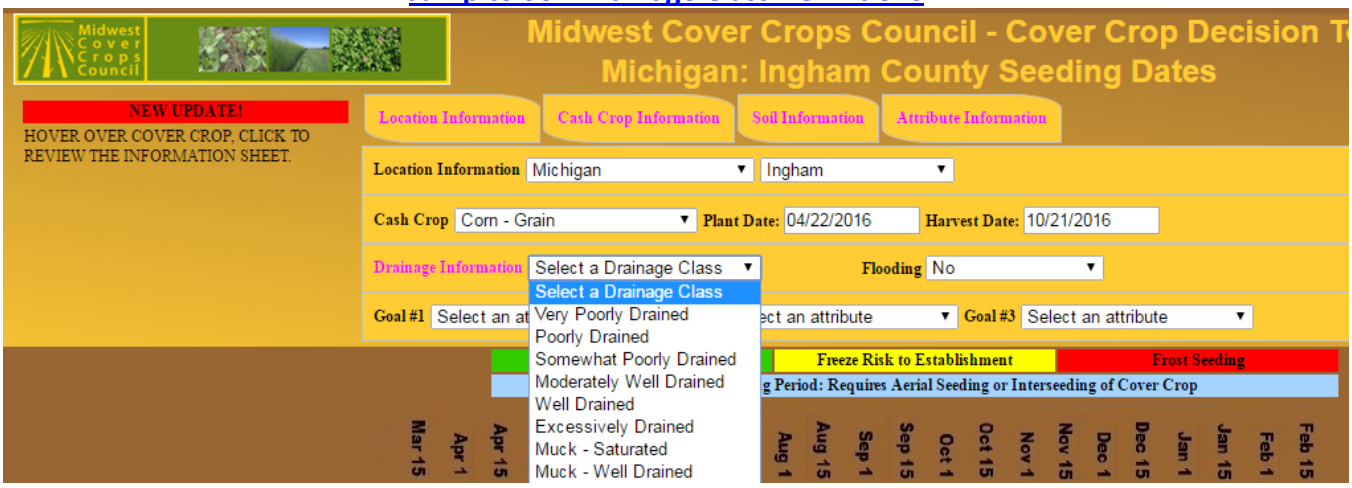


Planting a cover crop during this period will require special planting techniques such as aerial seeding or interseeding into the cash crop.

Step 4 – Field Information (optional)

Select the field soil drainage class or if farming muck whether is saturated or well drained. This soil drainage class can be found in your county Soil Survey and are defined below under Soil Drainage Class Definitions.

[Jump to Soil Drainage Class Definitions]



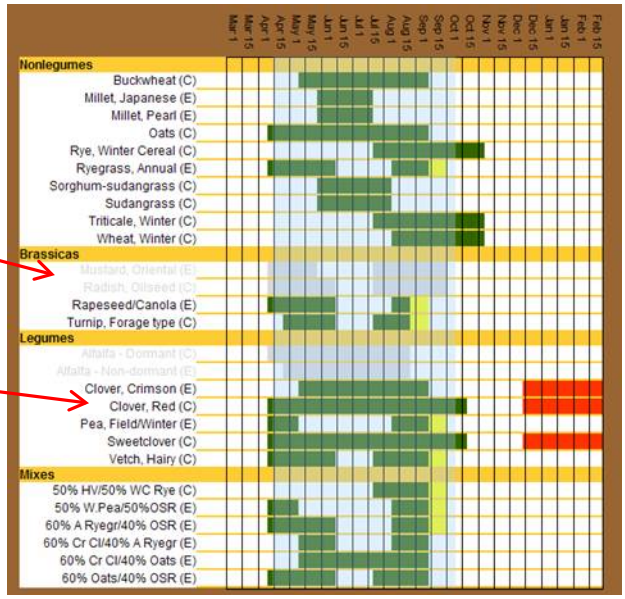
Select Yes or No for Artificial Drainage (Tiles, Ditches, etc.) for soil drainage classes below Somewhat Poorly Drained.

Select No, Brief – up to 7 days or Long – 7 days + from the Flooding/Ponding menu.

Completing Step 4 will cause the tool to screen out cover crops (faded out) that are not appropriate for your field conditions. The remaining cover crops may be considered for use.

A cover crop that **will not** perform well under these field conditions.

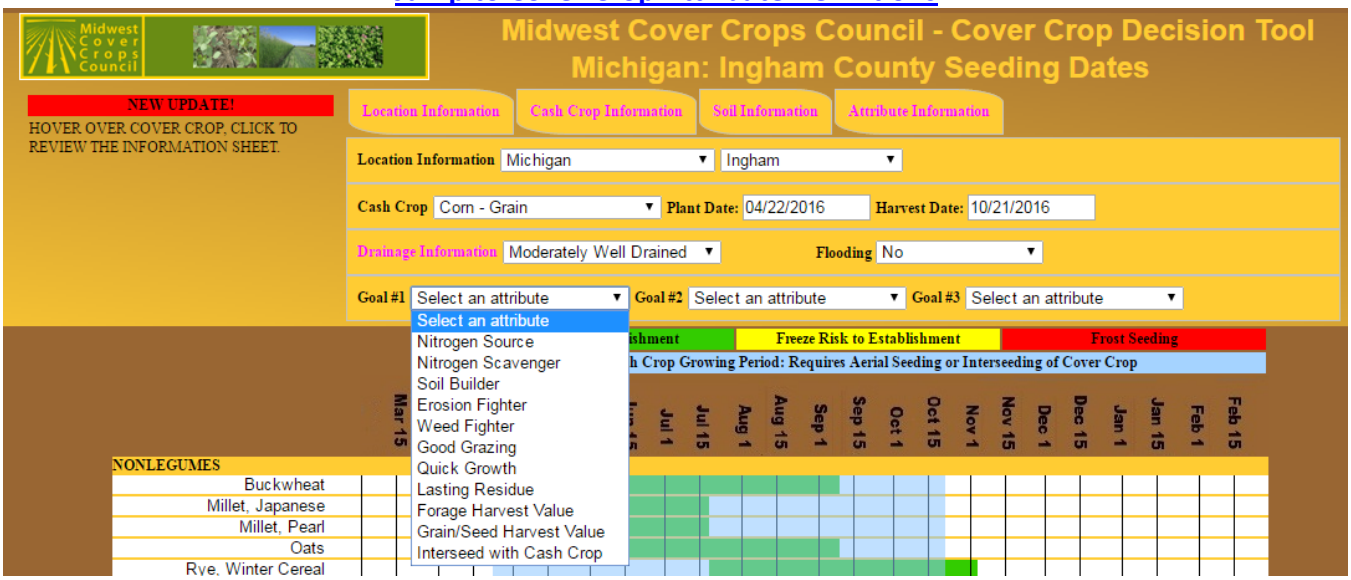
A cover crop that **will** perform well under these field conditions.



Step 5 – Cover Crop Attributes (optional)

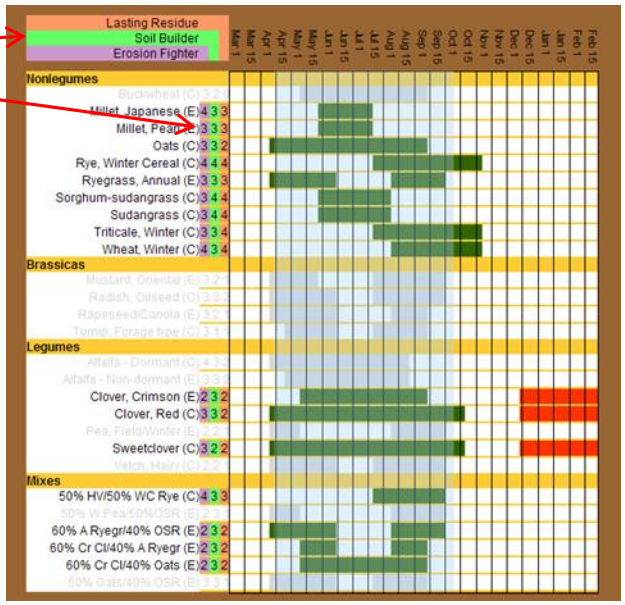
Select up to three cover crop attributes (benefits you want to get from growing a cover crop) from the attribute menus. The cover crop attributes are defined below under Cover Crop Attribute Definitions.

[Jump to Cover Crop Attribute Definitions]



Completing Step 5 will cause the tool to screen out cover crops (faded out) that are not appropriate for the benefits you want to get from your cover crop. The remaining cover crops may be considered for use.

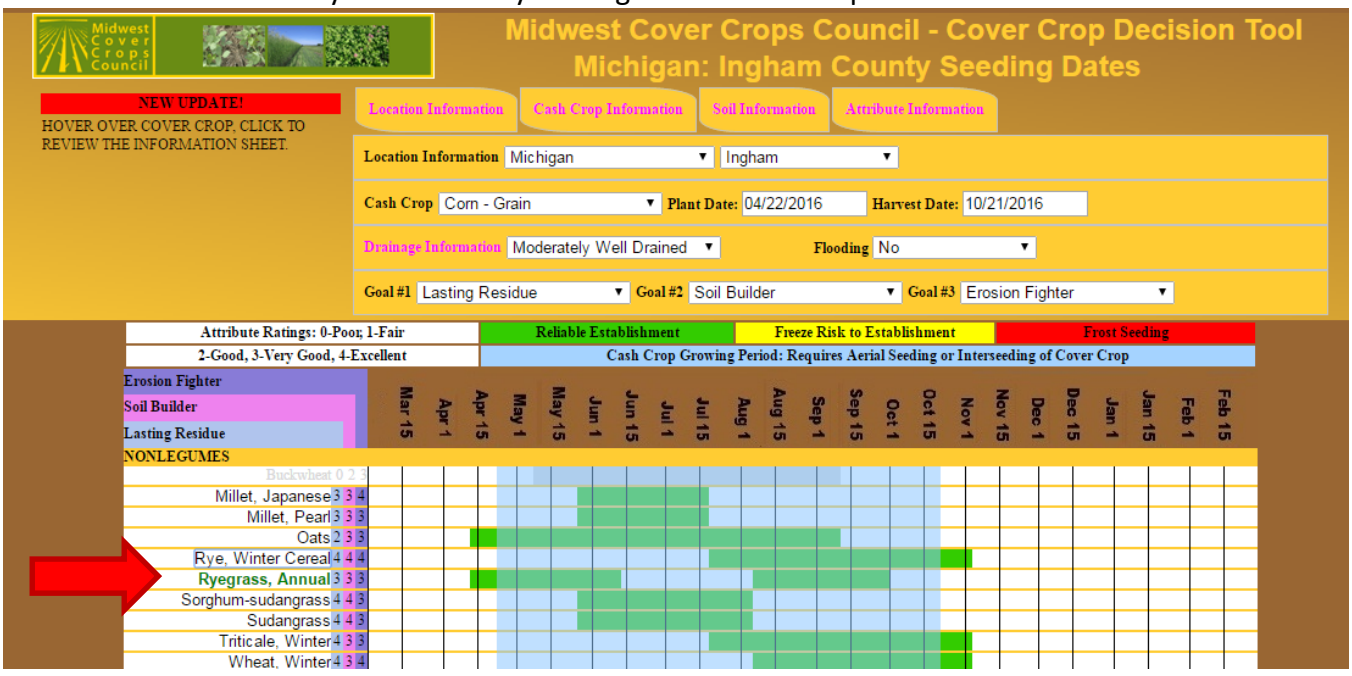
The ratings for each of your selected attributes are displayed. The ratings are:



- 0 – Poor
- 1 – Fair
- 2 – Good
- 3 – Very Good
- 4 – Excellent

Step 6 – Cover Crop Information Sheet (optional)

An information sheet may be created by clicking on the cover crop of interest in the list.



Information is given for:

- Considerations for using the cover crop in this location
- Planting
- Termination
- Performance and Roles
- Cultural Traits

Potential Advantages
Potential Disadvantages
Information resources about the cover crop

Go to the Cover Crop Decision Tool

Soil Drainage Class Definitions

Excessively drained. Water is removed very rapidly. The occurrence of internal free water commonly is very rare or very deep. The soils are commonly coarse-textured and have very high hydraulic conductivity or are very shallow.

Somewhat excessively drained. Water is removed from the soil rapidly. Internal free water occurrence commonly is very rare or very deep. The soils are commonly coarse-textured and have high saturated hydraulic conductivity or are very shallow.

Well drained. Water is removed from the soil readily but not rapidly. Internal free water occurrence commonly is deep or very deep; annual duration is not specified. Water is available to plants throughout most of the growing season in humid regions. Wetness does not inhibit growth of roots for significant periods during most growing seasons. The soils are mainly free of the deep to redoximorphic features that are related to wetness.

Moderately well drained. Water is removed from the soil somewhat slowly during some periods of the year. Internal free water occurrence commonly is moderately deep and transitory through permanent. The soils are wet for only a short time within the rooting depth during the growing season, but long enough that most mesophytic crops are affected. They commonly have a moderately low or lower saturated hydraulic conductivity in a layer within the upper 1 m, periodically receive high rainfall, or both.

Somewhat poorly drained. Water is removed slowly so that the soil is wet at a shallow depth for significant periods during the growing season. The occurrence of internal free water commonly is shallow to moderately deep and transitory to permanent. Wetness markedly restricts the growth of mesophytic crops, unless artificial drainage is provided. The soils commonly have one or more of the following characteristics: low or very low saturated hydraulic conductivity, a high water table, additional water from seepage, or nearly continuous rainfall.

Poorly drained. Water is removed so slowly that the soil is wet at shallow depths periodically during the growing season or remains wet for long periods. The occurrence of internal free water is shallow or very shallow and common or persistent. Free water is commonly at or near the surface long enough during the growing season so that most mesophytic crops cannot be grown, unless the soil is

artificially drained. The soil, however, is not continuously wet directly below plow-depth. Free water at shallow depth is usually present. This water table is commonly the result of low or very low saturated hydraulic conductivity of nearly continuous rainfall, or of a combination of these.

Very poorly drained. Water is removed from the soil so slowly that free water remains at or very near the ground surface during much of the growing season. The occurrence of internal free water is very shallow and persistent or permanent. Unless the soil is artificially drained, most mesophytic crops cannot be grown. The soils are commonly level or depressed and frequently ponded. If rainfall is high or nearly continuous, slope gradients may be greater.

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Cover Crop Attribute Definitions

Nitrogen Source: Rates legume cover crops for their relative ability to supply fixed N. (Nonlegumes have not been rated for their biomass nitrogen content, so nonlegumes will not be displayed.)

Nitrogen Scavenger: Rates a cover crop's ability to take up and store excess nitrogen. Bear in mind that the sooner you plant a cover after main crop harvest—or overseed a cover into the standing crop—the more N it will be able to absorb.

Soil Builder: Rates a cover crop's ability to produce organic matter and improve soil structure. The ratings assume that you plan to use cover crops regularly in your cropping system to provide ongoing additions to soil organic matter.

Plow-layer Compaction Fighter: Rates a cover crop's ability to reduce compaction at the plows layer.

Topsoil Compaction Fighter: Rates a cover crop's ability to reduce compaction in the topsoil layer.

Soil Erosion Fighter: Rates how extensive and how quickly a root system develops, how well it holds soil against sheet and water erosion and the influence the growth habit may have on fighting water erosion.

Wind Erosion Fighter: Rates how extensive and how quickly a root system develops, how well it holds soil against wind erosion and the influence the growth habit may have on fighting wind erosion.

Weed Fighter: Rates how well the cover crop out-competes weeds by any means through its life cycle, including killed residue. Note that ratings for the legumes assume they are established with a small-grain nurse crop.

Quick Growth: Rates the speed of establishment and growth.

Lasting Residue: Rates the effectiveness of the cover crop in providing a long-lasting mulch.

Quick Breakdown: Rates the speed of decomposition of cover crop residue.

Attracts Beneficials: Rates whether a cover crop attracts beneficial insects.

Nurse Crop: Rates whether the cover crop would hinder or help while serving as a companion crop.

Forage Value: Rates the cover crop's economic value as forage, bearing in mind the relative market value and probable yields.

Seed/Grain Value: Rates the cover crop's economic value as a seed or grain crop, bearing in mind the relative market value and probable yields.

Interseed w/Cash Crop: Rates whether the cover crop would hinder or help while serving as a companion crop.

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