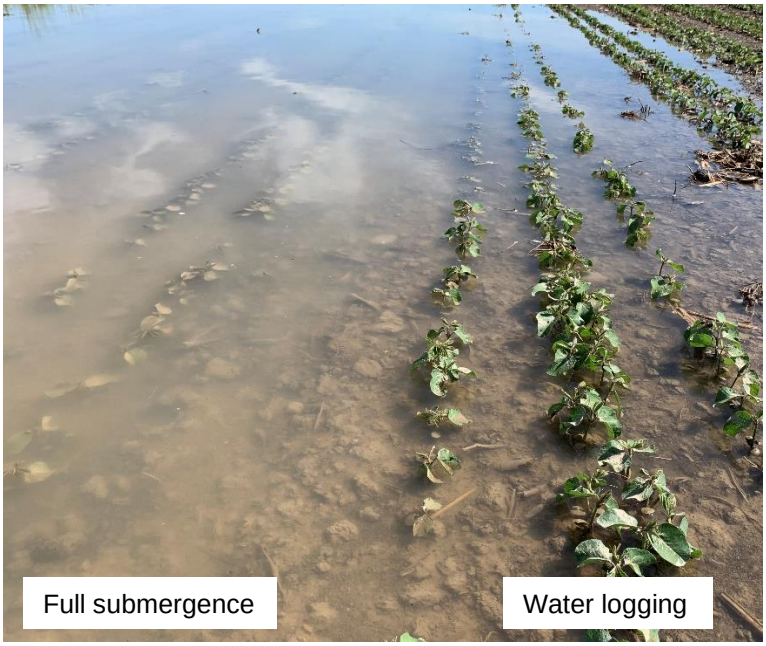
GROWING FORWARD. SINCE 1971.
SNOBELEN FARMS

June 8th, 2022

2022 Snobelen Farms Yield Challenge

Newsletter

Flooding in Soybean Fields



What better time to think about flood damaged soybeans than now? With the rain received between Monday and Tuesday some of the lower laying areas are experiencing flooding. It is likely most of the water will drain away quickly but if your fields are left with standing water for a few days, it is time to consider your soybeans survivability. Survivability will vary depending on temperatures, cloud coverage and the soybeans growth stage. The cooler and cloudier the weather the longer the soybeans will be able to survive. Warmer temperatures increase plant respiration which means the plant will require more oxygen. So warm weather with sunlight could mean your soybeans have as little as two days for survival.

If the roots are underwater it is considered water logging. If the full plant is under water, it is considered full submergence. If your soybean field is waterlogged for 2 days, there can be minimal yield losses. If it is waterlogged for longer than 4 days, there can be significant yield losses. If soybeans have been fully submerged wait a few days after the water has drained and assess the plants for new growth before making any replant decisions.

https://fieldcropnews.com/2015/06/flood-damaged-soybeans/

Growing Degree Days and Crop Heat Units

The following table will provide a look at the approximate growing degree days and crop heat units in your area for a planting date of May 10th.

Table 1: Cumulative growing degree days and crop heat units

Location	Growing Degree Days May 31-June 7	Crop Heat Units May 31-June 7	Cumulative Growing Degree Days	Cumulative Crop Heat Units
Brantford	406.8	144.8	1478.8	525.8
Lucknow	394.3	139.4	1450.7	507.7
Palmerston	385.0	128.4	1394.9	459.9
Stratford	388.6	131.2	1425.1	482.0
Tiverton	402.3	145.7	1457.5	513.7

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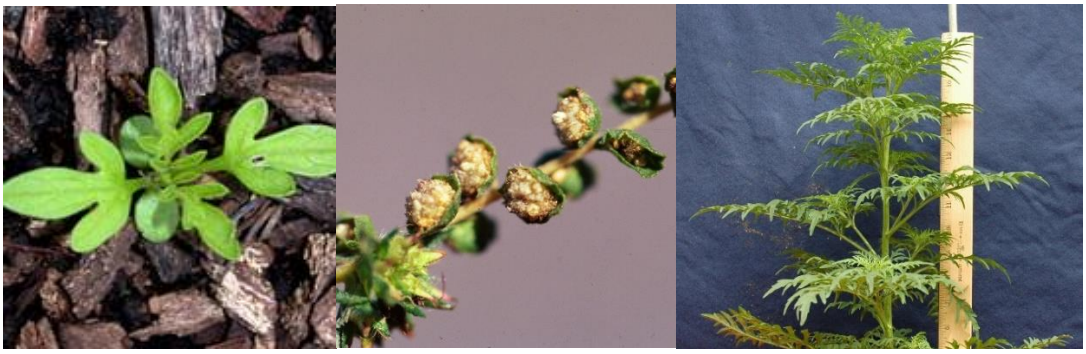
Weed of the Week: Common Ragweed



https://blogs.cornell.edu/weedid/field-crops/common-ragweed-ambrosia-artemisiifolia/

Seedling

Seedlings have their first two leaves divided into 3 lobes.

Mature Plant

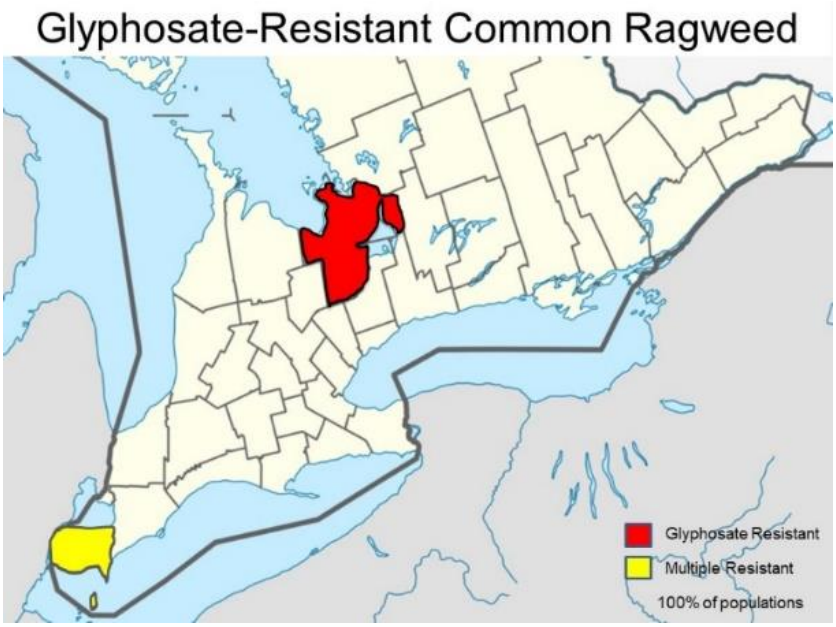
Ragweed has an erect, hairy stem and can grow up to 1.5m tall. Leaves have opposite orientation, further up the stem they become alternate. The leaves are deeply divided and have many short hairs. The more visible male flowers look like upside down bowls.

Favourable Conditions

Ragweed is very common on cultivated lands and does well in poor soils.

Resistance

Common ragweed that is resistant to group 2 (ex. Pursuit & Classic) herbicides is common across Ontario, it is less common to see populations resistant to groups 5 (Metribuzin) and 9 (Glyphosate). Glyphosate-resistant common ragweed has been confirmed in both Essex and Simcoe counties



Map Courtesy of Peter Sikkema

Management

In conventional soybeans with group 2 and glyphosate resistance the best control comes from a two-pass program. For pre-plant an application of Lorox or Sencor at the highest rate (Be mindful of rates when using Sencor on sand). For post-emergence either an application of Reflex or Blazer. Spring tillage can delay seedling emergence by two weeks.

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According to the Pest Manager app the best control for glyphosate-resistant common ragweed in soybeans is:

Pre-emerge

Trade name	Control percentage
Broadstrike RC	80% control
Conquest LQ co-pack	80% control
Bifecta co-pack	80% control
Commenza	80% control

Post-emerge

Trade name	Control percentage
Blazer, Ultra	90% control
Reflex + Turbocharge	90% control
Cleansweep co-pack	90% control

Should you add nitrogen to your soybeans?

For a soybean field to be high yielding it requires a lot of nitrogen. As a yield challenge grower, you are pushing for higher yields, and you may be questioning whether biological N fixation and residual soil N will get you where you need to be. So, will adding additional N to your soybean crop bring you a better yield? Majority of the research conducted points to no, in general there is no major yield advantages to applying N to your soybean field. Unless there are abnormal field conditions such as nodulation failure. If a field is to yield 70bu/ac, soil nitrogen and nitrogen fixation may not be enough, and the field could potentially gain from commercial nitrogen fertilizer. Several different trails conducted found that there were inconsistent yield results in normal field conditions.

http://www.omafra.gov.on.ca/english/crops/field/news/croptalk/2013/ct-0613a10.htm

Hot Topics from the June 7th Exeter/Mt. Forest Agribusiness Breakfast Meeting

Winter Wheat

Head snag in wheat

- Seeing some powdery mildew, but a T3 fungicide will help stop the spread
- There are still some heads yet to emerge
- Lots of T3 applications happening this past weekend and this week
- Agronomists noticing some heads have been emerged for 5 days with no pollen shed, if heads are emerged and you are not seeing pollen you should still be applying a fungicide
- For the most part it is looking like a very clean crop
- There has been some head snag with no yield hit in varieties like Branson and Ava

Soybeans


Metribuzin damage- OMAFRA

- There are still some soybeans yet to be planted and there are some that are at their second trifoliate growth stage
- Growers should be assessing for thin stands and making replant decisions
- Agronomists have noticed better plant stand on fields where a planter was used vs fields where a drill was used, specifically on clay soils. The ground above the bean is not packed as hard and it is easier to push through. There is also better depth control
- There has been metribuzin (Sencor) burn noticed on soybeans as well as some group 14 (Authority) injury, plants under stress are more likely to be impacted. This could be from splash up from heavy rains
- Ilevo seed treatment has caused a severe halo effect in soybeans, but the plants will survive

Tracey Baute, OMAFRA:

- Seeing some cutworm damage in soybeans (cutting complete plant off at the ground). There is no threshold for cutworm, once they are 2.5cm long control is not effective

Horst Bohner, OMAFRA Soybean Specialist:


Seedcorn maggot feeding- OMAFRA

- There are some mediocre soybean stands at 50%. As time moves forward, you should be more inclined to leaving the stands of 80-90,000 plants/acre
- Seeing some wireworm and seed corn maggot feeding on soybeans which is reducing stands. Look for gaps in your field and find the seed to confirm
- Some people planted soybeans 3+ inches deep to get to moisture. The theory is correct, although Horst's research says going deeper than 2.5 inches is problematic especially in heavy clay

Mike Cowbrough, OMAFRA:

- Group 14 injury on soybeans is more common if applied pre-emerge vs pre-plant. You are likely to see more injury on cultivated soils vs no-till.
- Some varieties are more sensitive to metribuzin injury than others

Corn

- In some areas corn has up to 8 leaves
- Soils were not as fit as last year, some soils were worked too early
- Dry conditions had contributed to fertilizer damage being seen in corn
- Seeing some purpling in corn, you have to look at where the purpling is occurring to determine the cause, old leaves vs new leaves, or the whole plant. The two main causes are Phosphorus and stress

Peter Johnson

- Nitrogen availability is a big question. The warmer month of May caused nitrogen to be mineralized quicker and made it more available
- A nitrogen test (PSNT) is the best way to know where you are at