



On The Radar

July 23, 2021



Status by Crop

Corn: VT (tasseling) – R1.5 (pollination)

Soybeans: pod development

Potato: Tuber bulking (slightly larger than last week, but not a lot sizing seen) early russets largest potatoes at 8oz chips @ 2.5-3" diameter potatoes

Cabbage: 10" diameter (seed planted); 12" diameter(transplants)

Carrots: 40%– 100% canopy



Pest Pro's Blacklight Traps

July 16- July 19

- Grand Marsh, WI
 - 151 western bean cutworm
 - 2 celery looper
- Hancock, WI
 - 13 western bean cutworm
 - 1 celery loopers



Newly hatched egg mass of WBC larva

Last week appears to be the peak flight of western bean cutworms (WBC), scouting fields for egg masses and hatching larva key this week & next for determining if insecticide action is needed.

July 20- July 22

- Grand Marsh, WI
 - 56 western bean cutworm
- Hancock, WI
 - 9 western bean cutworm



Pictured above: on left a hatched WBC egg mass/larva & on right a corn pollen grain

Corn - Smut



Smut on corn (*Ustilago maydis*) – a fungal infection commonly on the ear of corn but can occur on pretty much on any above ground part of the plant.

Pictured to the left is a gall formed from smut— it will appear silvery-white and as it ages it'll turn blackish-gray (develops spores).

We don't commonly see smut causing a major yield impact on fields. Infection normally occurs from weather damage (hail/wind) or mechanical injury.

Corn - Detasseling





Corn detasseling equipment is out in the seed corn fields – certain rows are detasseled to become the female rows (develop the new hybrid seed) and a few rows remained tasseled (male rows) to pollinate the female rows.

Timing of detasseling is important because the window of opportunity is a bit tricky, if not timed correctly, it can be yield limiting or the plants will begin to pollinate themselves.

Soybean: R3 (Begin Pod)





At R3, soybean pods will be at least 5 mm long at one of the 4 upper most nodes on the main stem.

The fungicide window for white mold is very close to closing at this point because the canopy is covering lower flowers.





2nd generation Colorado Potato Beetle (CPB) adults are beginning to emerge in significant numbers that insecticides have been recommended for fields this week.

Minecto Pro is a popular product for 2nd generation adult control as well as a good larvicide.

Photo of CPB adults caught in a set of 25 sweeps in a sweep net

Potato Early Dying Syndrome

Starting to see an occasional plant with symptoms of potato early dying – a disease complex cause by root lesion nematode feeding on the roots and infection of *Verticillium dahliae*, which infects through the roots and colonizes the vascular system of the plant.





Early Dying Syndrome

Healthy

Potatoes – P. nicotianae



Phytophthora nicotianae is a late blight look-a-like, since the lesion symptoms are identical to P. infestans, late blight.

Unlike late blight, *P*. *nicotianae* infection are mostly soilborne and the leaf lesions do not sporulate as proliferous as late blight.

Potatoes – Late Blight

Our cool nights (50-60 degree Fahrenheit) and warm humid days are conducive to late blight infection and spore development. Lack of morning dew development and hotter days (75+ degree Fahrenheit) are less ideal conditions for late blight. So far, no late blight has been seen in Central WI and protectant fungicide applications are going out to specifically get coverage for late blight.



Potatoes - Aphids

This week, we have an occasional field with below threshold levels catches of potato aphids.



Besides potato aphids, green peach aphids are another insect pest of potatoes.

In cases of heavy aphid infestation, "aphid craters" can be seen. An aphid crater is a patch in the field of dying plants due to aphids feeding on the plant sap. The aphids will move on to healthier plants once the current plant succumbs to their feeding, so you can find aphid infested plants along margins of the aphid craters.

Aphids tend to be found on leaf undersides on the lower-mid canopy.

Carrots - Bolting



Bolting, or premature flower and seed development, can be an issue in carrots.

Carrots will bolt in response to stress such as drought or heat. The tendency to bolt differs by variety.

We have spotted trace numbers of plants bolting so far this season.



Cabbage



Black rot is one of the most concerning diseases on cabbage as it is caused by a bacterial pathogen & is spread by water easily. Lesions develop as a triangular shaped necrotic region that expands as infection progresses.

Luckily, no black rot has been observed as of this week.

Growers manage their irrigation to help reduce the spread and chance of black rot by irrigating as little as possible and timing irrigation, so the leaves don't have a prolonged timeframe of moisture.

Minimal irrigation (as reasonably possible) is also key for reducing the chance of heads splitting.