

Oneida County Scouting Report

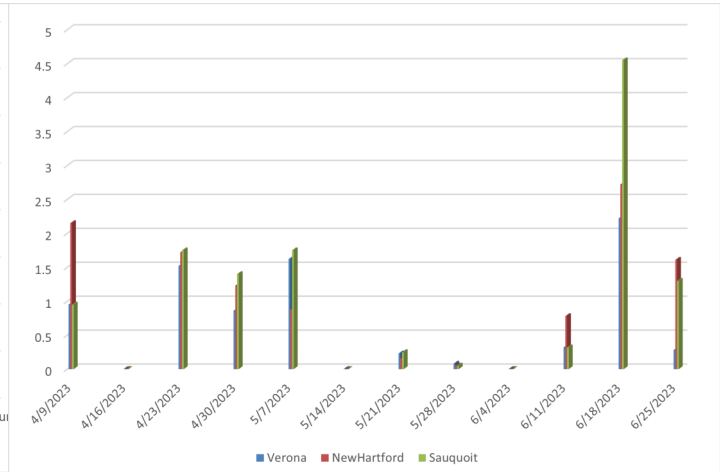
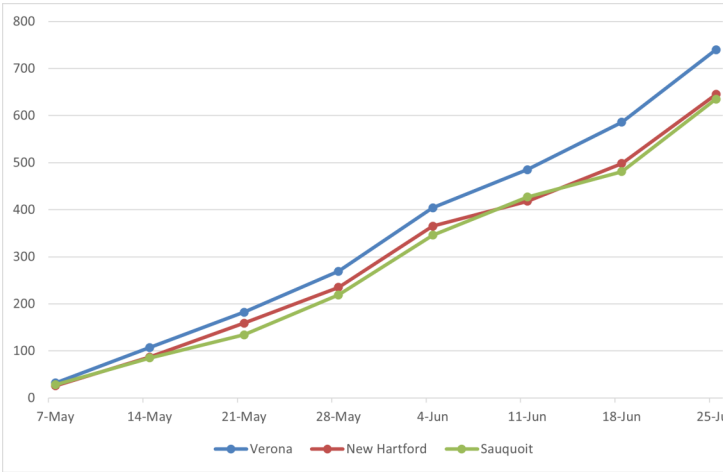
June 29th, 2023

Weather: For the week ending on June 25th

Running total of GDD,s base 50 starting May 1st to June 25th, for **corn 673 GDD base 50**

Rainfall total for the month of April was 4.1” with 1/2 in 3 events. 1.69” for the month of May; 1.06” in the week ending 6/25. 0.28” to 1.61” at 2 different locations

Cropping activities: Some grass hay being harvested, manure application, herbicide applications and N sidedress.
 GDDs base 50F Weekly Rainfall (inches)



Crop Conditions:

Hay

Some growers have started 2nd cut. I observed a few grass fields and one mixed mostly alfalfa field that were harvested this week. Scouted 4 fields for Potato leaf hopper 6/26. All 2nd cutting fields were 20-24” tall with PLH numbers between 0 and 10 per 30 sweeps(way below threshold) Most of the established stands had some feeding damage from alfalfa weevil but otherwise looked good.

I am seeing damage from alfalfa weevil in established alfalfa fields (in picture to the right) scouted last week. They should be at the cocooning stage now and don’t expect more damage from this pest.



Noting a big difference in alfalfa plant populations in new seedlings planted with oats versus those that were planted without a nurse crop. The oats competed with the alfalfa for moisture slowing the germination of the alfalfa in these stands.

Planting oats with new seedlings in fields with slopes is a good practice to help reduce erosion. Growers should avoid planting a nurse crop with new hay seedlings if there is little likelihood of erosion.

You can count on annual weeds germinating along with your crop in direct seedings

But they will be gone after harvest. In a very few years we have recommended clipping weeds in new seedlings when populations were excessive.

A good way to judge the timing of first harvest in new seedlings is to check for flower buds. Allowing the plant to grow to the bud stage gives it an opportunity to build root reserves that will not only help regrowth in this season but potentially impact the longevity of the stand. To check for flower buds squeeze the clumps of leaves at the top of the plant. If they are flat then they are leaf buds, if you feel a bebe shaped bump in the clump of leaves that is a flower bud. If 50% of your stand has flower buds it is time to harvest.

A number of alfalfa fields are from 20– 26 days after 1st cut. Many growers have a cutting cycle of 28-32 days. Tough decisions will be made over the next week with a current forecast of rain in this coming week starting on Friday.



Wide swathing hay for silage can be very helpful when there are small weather windows for harvest. You are only mowing what you can chop that same day so you can selectively chip away at harvest getting the best quality during a rainy harvest period.

This system involves harvesting high-moisture forage by cutting it in the morning, harvesting it approximately seven hours later, and then putting it into a silo before the sun goes down. Wide swathing is mowing hay and spreading it out in a thin layer that will be exposed to more sunlight and wind to increase the rate of drying to a silage moisture. Your mower has to be able to spread the hay to at least 80% of the width of the mower or you will have to use a tedder quickly after mowing. This method, according to those who use it, has resulted in the following:

- **Shorter wilting periods**
- **Lower respiration losses**
- **Higher sugar and starch content**
- **Better forage quality**
- **A rise in digestible energy**
- **Improved fermentation**
- **Less damage from rain**
- **Significant improvements in milk production for dairy farmers**

You should not harvest more acres than you can harvest in the same day. That's because the forage can get too dry for ensiling.

As you approach harvest moisture, hay has to be raked into wind rows for the chopper.

Tom Kilcer found a savings in fuel from moving to wide swathing from conventional mowing immediately into windrows even with the extra trip of raking the hay into windrows. He found that growers were able to combine wind rows and make less trips with the fuel hog (chopper) with an overall savings in fuel.



Potato leaf Hopper



4 fields swept with PLH numbers between 0 to 10 PLH per 30 sweeps (well below threshold). 6/26.

Potato leaf hoppers don't over-winter in our area. They are brought up by storms from our south. They have piercing sucking mouthparts that they use to stick into the veins of leaflets of alfalfa plants to suck out the juices loaded with carbohydrates. In the process they leave behind a toxin that closes the conductive tissue and the leaflet dies from that point out to the leaf tip. Leaf hoppers can multiply quickly: one female potato leaf hopper can lay up to 200 eggs in its life span, eggs hatch in 10 days and the nymphs become adults in 12 days and begin laying eggs. Potato leaf hoppers can reduce yield by 1/2 ton / acre. They can significantly reduce protein levels in the harvested hay. They also can shorten the longevity of the stand by reducing the amount of carbohydrates produced and stored in the root system for over-wintering. Potato leaf hoppers are especially harmful to new alfalfa seedlings which do not have significant root reserves and are very vulnerable.

If you have swept your field and it is over threshold you have two choices: If you are within 10 days of harvest then harvest early. This removes the food source and significantly reduces the population of nymphs (because they cannot fly away) . This method may not work this season because I found only adults when I was scouting. Adult PLH have wings and can migrate to another field. Make sure you recheck fields after harvest and treat with an insecticide if the population exceeds an economic threshold.

If you are above an economic threshold and not within 10 days of harvest you should consider applying an appropriate insecticide. Baythroid and Warrior II are labelled for mixed swards of alfalfa and grass.

You can learn quickly how to scout for potato leaf hopper by watching this video:

<https://www.youtube.com/watch?v=-LTa6Sqe3js>

Potato Leafhopper Sequential Scouting Plan

		Crop Height							
		<3"		3" - 7"		8" - 10"		>10"	
Sweep	Set	N	M	N	M	N	M	N	M
1	1	*	*	*	*	*	*	*	*
2	2	*	*	*	*	*	*	*	*
3	3	2	* 9	9	* 20	19	* 41	44	* 75
4	4	4	* 11	14	* 25	29	* 50	64	* 95
5	5	5	* 13	18	* 30	39	* 60	84	* 115
6	6	7	* 15	23	* 35	49	* 70	104	* 135
7	7	9	* 16	28	* 40	59	* 80	124	* 155
8	8	11	* 18	33	* 45	69	* 90	144	* 175
9	9	13	* 20	28	* 49	79	* 100	164	* 195
10	10	19	20	49	50	99	* 100	199	200

Each sweep set=10 sweeps * indicates need to sample another set

A chart was developed through research to determine the economic threshold for PLH in alfalfa at different heights. An example would be: At 3" height of alfalfa an economic threshold would be reached at 9 potato leaf hoppers in 30 sweeps but if you had 2 or less PLH in 30 sweeps you would be below the threshold. 1 set of sweeps is 10 swings of the net in a pendulum motion across your body as you are walking through a section of the field always sweeping a new area.

If your alfalfa is 10" or greater which fits a number of local fields then 75 or more plh in 30 sweeps would be over threshold. My recent scouting of a number of fields went from 66-100 plh in 30 sweeps.

To buy a net do an internet search for greatlakesipm.com.

They have 15inch nets starting at \$28.



Pea Aphid

Commonly found in hay fields when scouting for other pests. In dry years their numbers can increase tremendously.

No research based action threshold

Using a cup of aphids in 10 sweeps as a estimate for treatment.

Still finding a cup of aphids in 30 sweeps in scouting this week.

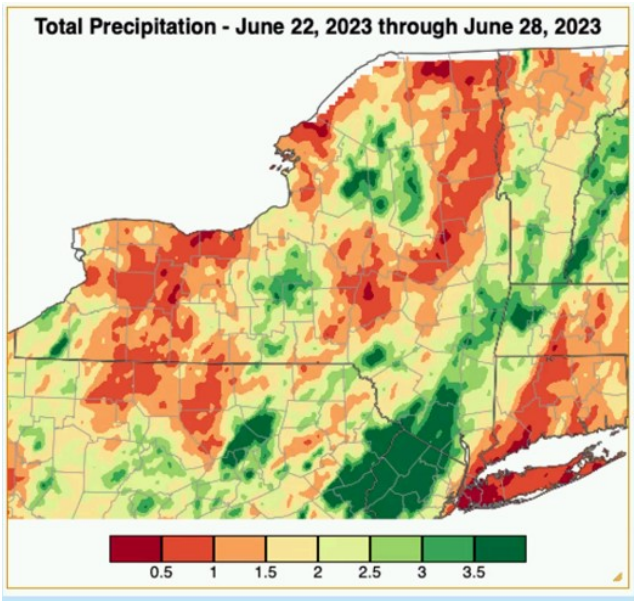
See table below for insecticide efficacy



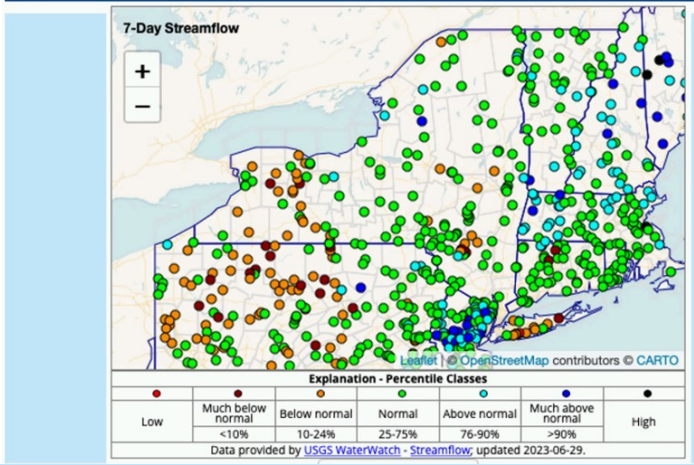
Active Ingredient (Example Product(s))	Alfalfa Weevil	Armyworm	Pea Aphid	Potato Leafhopper	Comments
alpha-cypermethrin (*Fastac)	X	X	X	X	
cyfluthrin (*Baythroid XL)	X	X	X	X	For use in mixed stands (alfalfa/grass); see label.
dimethoate (*Dimethoate)	X		X	X	
flupyradifurone (*†Sivanto)			X	X	
lambda-cyhalothrin (*Warrior II)	X	X	X	X	
lambda-cyhalothrin + chlorantraniliprole (*†Besiege)	X	X	X	X	
methomyl (*Lannate LV)	X	X	X		
permethrin (*Arctic, *Perm-up, *Pounce 25WP)	X	X	X	X	
afidopyropen (*†Sefina Inscalis)			X		
zeta-cypermethrin (*Mustang Maxx)	X	X	X	X	For use in mixed stands (alfalfa/grass); see label.

- ♦ **Some grass fields are coming up on 28-30 day harvest timing. The dry weather may have reduced regrowth. It is best to set your cutting height to 4 inches and harvest these fields to spur regrowth now that we have received some rain.**
- ♦ **This is a great time to apply modest rates of manure after harvesting grass hay.**
- ♦ **Some 2nd cutting alfalfa fields are 22-26 days out from harvest. Growers are preparing to harvest these fields (waiting for a harvest window)**
- ♦ **This is a good time to pull soil samples in 3rd year alfalfa stands to determine nutrient levels (especially potassium) so that fertilizer can be applied if needed before winter.**
- ♦ **I suggest a conservative approach to harvest of new seedings this season considering most of their existence has been under drought conditions. Feel for flower bud in the top of the plant (bebe size structure in the top leaves) as a way to time 1st harvest.**
- ♦ **Growers should start sweeping fields to check on potato leaf hoppers after Mondays**

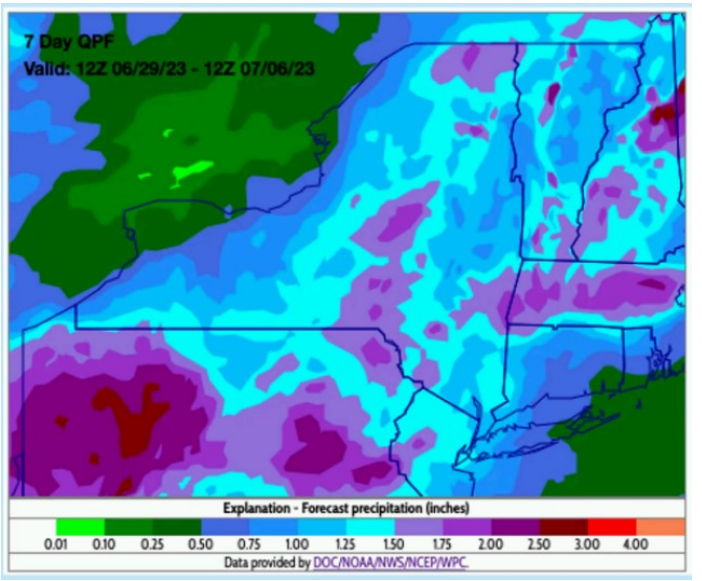
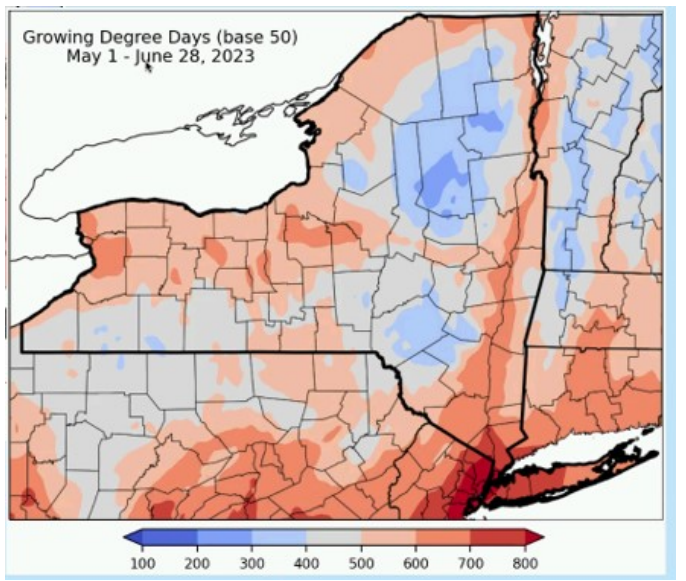
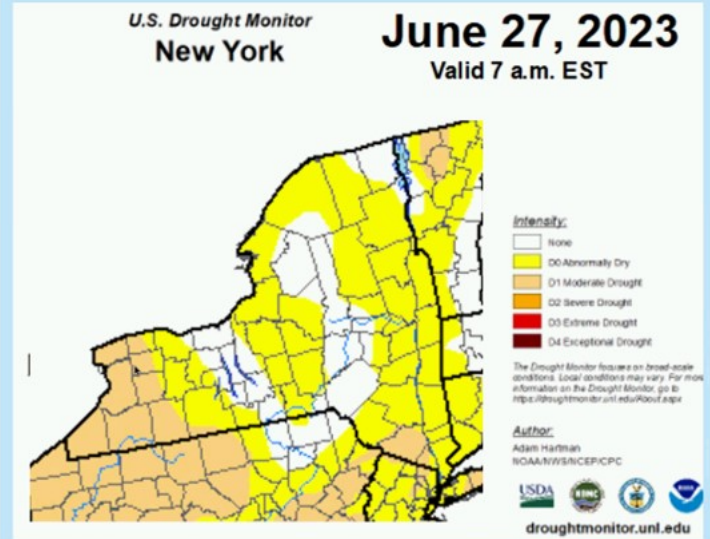
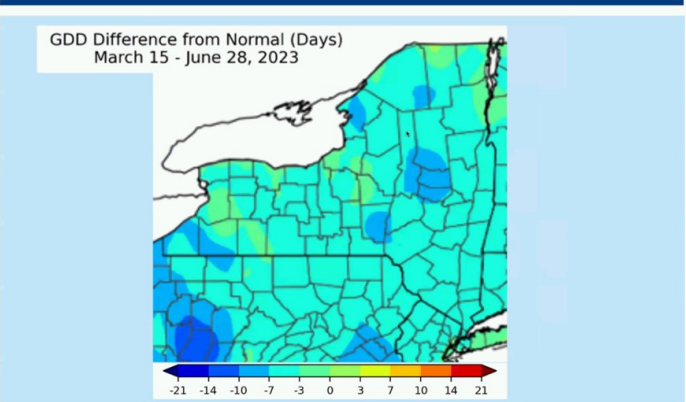
Weather



7-DAY STREAMFLOW

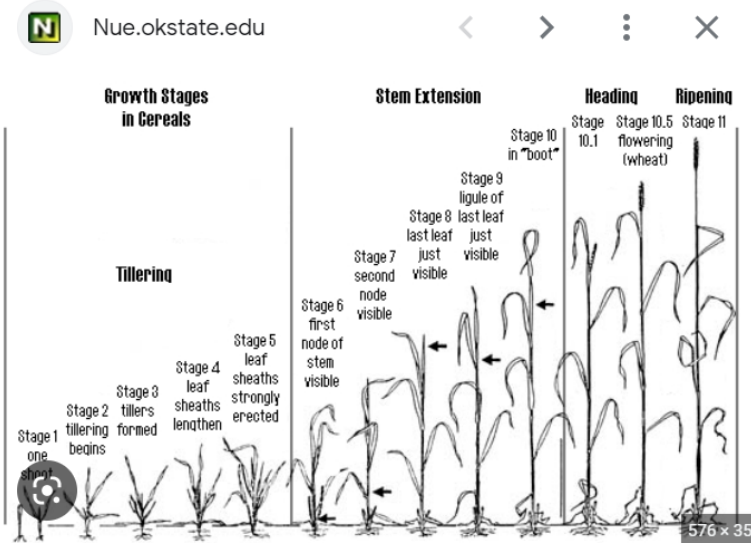


GDD DIFFERENCE FROM NORMAL



Wheat

Wheat is turning now! Temperatures have increased to 80F a few days this week which usually stops further development of powdery mildew. Haven't seen any rust or any other diseases. I have noted some white wheat heads indicating some fusarium head blight. This is a good time to look for fusarium head blight in your fields in preparation for harvest.



Penn State website for fusarium head blight risk level. <https://www.wheatcab.psu.edu/>

There were reports of stripe rust in western NY. They are also seeing leaf stripping from cereal leaf beetle as pictured in the photo to the left (saw some of this leaf damage in a few plants in a few fields today 6/21. Also noted speckling of leaves and powdery mildew on some plants 6/20.

When temperatures are below 80F and leaves may be wet, we can get an infestation of **powdery mildew**.



Stripe rust has been found in some wheat fields in western NY. If you see symptoms like those on the leaf to the left please give me a call at 315 269-5599

It will be time soon to look for white heads in your wheat fields. (picture on right)

The white heads are the result of fusarium head blight and can be a good indication of the level of infection.

Growers know that if they have these symptoms they can turn up the fans at harvest and blow away these lighter infected kernels.



Soybeans

Post emergence weed control in soybeans

Broadleaf Annual Weeds					
Herbicides	Common Lambsquarters	Horseweed (Marestail)	Redroot Pigweed	Common Ragweed	Velvetleaf
Postemergence					
Basagran 5L	Fair	-	Poor	Fair	Good
Classic ²	Poor	Fair ²	Good	Fair	Fair
Cobra	Poor	-	Good	Good	Good
*Engenia ³ /*XtenidMax ³	Excel	Good	Good	Good	Good
FirstRate ²	Poor	Fair ²	Poor	Excel	Good
Enlist One ⁴	Excel	Good	Good	Good	Good
Harmony SG ²	Good	-	Good	Poor	Poor
*†Pursuit	Poor	-	Good	Fair	Good
*Reflex/Flexstar	Poor	-	Good	Good	Poor
Resource	Poor	-	Poor	Fair	Excel

Annual Grass Weeds					
Herbicides	Barnyardgrass	Crabgrass	Foxtails	Fall Panicum	Witchgrass
Postemergence					
Assure II, Fusilade DX, Poast, *Select Max	Excel	Excel	Excel	Excel	Excel
Classic	Poor	Poor	Poor	Poor	Poor
*†Pursuit	Good	Fair	Good	Fair	-

Most local soybean fields are at 2nd trifoliolate (pic far right). Recent rain has helped to fill in gaps

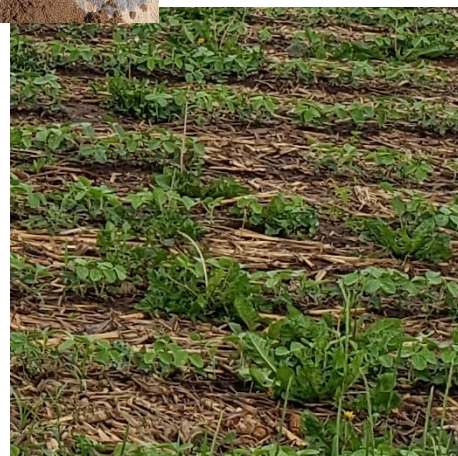
Some agronomists suggest that if weeds are not controlled by this stage that yield loss begins.

You will be able to see nodules on the roots at this stage and cut them open to see if they are active after the next set of trifoliolates. If no nodules consider applying nitrogen.

Herbicides have not been applied to most soybean fields yet. Growers will probably treat fields soon. Best control of annual grasses occurs when they are 3 inches, lambsquarter and other broadleaf annuals are more vulnerable when they are shorter than 5 "

For those of you who will be applying glyphosate to emerged weeds take a minute to read the label for the rate recommended for the weeds at their current heights. Use an appropriate surfactant and ammonium sulfate to optimize the action of the product.

An additional note for farmers with soybeans that are tolerant of liberty that this is another option for the control of annual weeds being a non-selective herbicide that burns back the foliage of most weeds. Liberty has been found to be effective on glyphosate resistant marestail.





Soybeans 4th trifoliolate stage, good size nodules very evident on the plants roots. You can split them open. If they are actively fixing N they will be pink or red in color. These nodules were slightly pink. Their activity level may have been impacted to dry



Some agronomists suggest that weeds should be controlled by the 2nd trifoliolate stage to avoid yield loss.

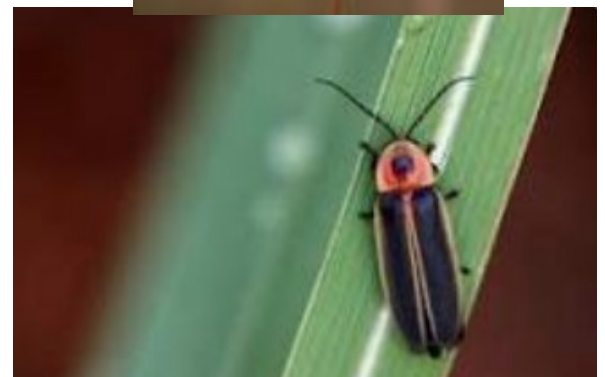
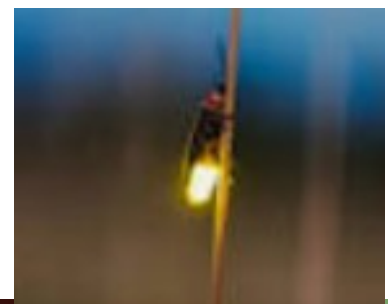
In scouting soybeans this week I found a number of fields that were at or near 2nd trifoliolate stage.

Remember that roundup ready extend II has to be applied by June 30th.

Corn

How many of you noticed the lightning bugs arriving about 10 days ago?

Their appearance coincides with the hatching of corn rootworm larva and the beginning of their feeding on corn roots.



Corn



Corn and Soybeans

Recent rainfall is helping to fill gaps in local corn fields. In row variation in corn maturity (1 plant v3, next plant v1 repeated throughout the field) can decrease yields. I believe there is less of an impact when there are several consecutive v1 plants in what were skips in a field that has mostly v3 plants. Seeing everything from spike to v4 maturity in fields across the county 6/21.

Most of the corn fields I scouted had been treated with herbicides and weeds were already turning yellow.

Sometimes corn fields at v2 stage look sick (yellowish). This is when the corn plants start to obtain their nutrients from the nodal roots. Ken Ferrie suggests digging up a few plants at this stage to look at the roots. He states that the first 2 sets of nodal roots (circling the stem) are responsible for the uptake of water and nutrients for the plant.



I will be picking up the bucket traps that we have been using to monitor flights of black cutworm and armyworm this season. We have had very modest numbers of these moths this season which usually means little damage from these pests.

Black cutworm moths		
week of collection	Week reported	Moth Counts
4/27/23	5/4/23	0
5/4/23	5/11/23	0
5/11/23	5/18/23	2
5/18/23	5/25/23	1
5/25/23	6/1/23	0
6/1/23	6/8/23	0
6/8/23	6/15/23	1
6/15/23	6/22/23	5

True armyworm moths		
week of collection	Week reported	Moth Counts
4/27/23	5/4/23	1
5/4/23	5/11/23	1
5/11/23	5/18/23	2
5/18/23	5/25/23	1
5/25/23	6/1/23	1
6/1/23	6/8/23	1
6/8/23	6/15/23	0
6/15/2023	6/22/2023	3

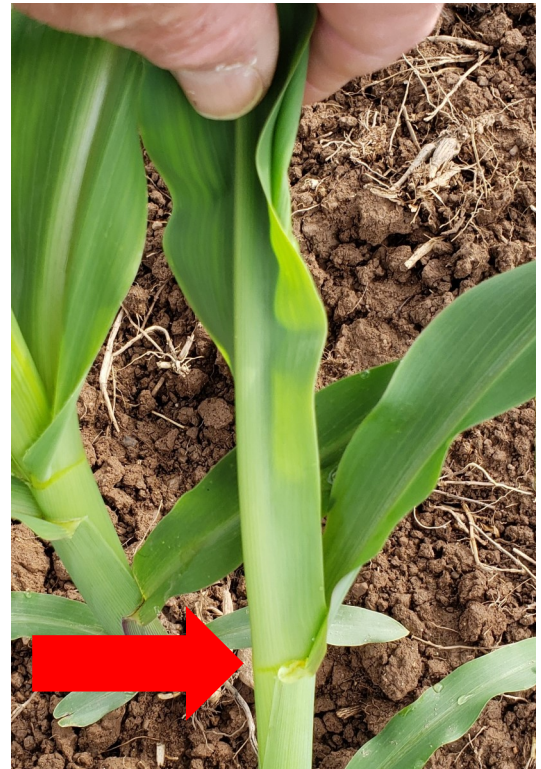


I have picked up all of the soil and sticky traps that we had at 3 locations in our county to measure seed corn maggot populations and will report the summary of that information when it becomes available. This research was conducted to help identify if this is a significant pest in NY. Additional studies established at 7 sites across NY were established to evaluate 2 families of insecticide seed treatments effectiveness in controlling seed corn maggot and wireworm in corn.



Observing non uniformity of maturity in some areas in fields. One grower pointed out that he had this situation in a portion of a field that didn't work up well (chunky clods like in this picture). This could cause the planter to plant seeds at different depths or create air pockets either delaying emergence.

Agronomists use symbols to represent corn growth stages. V1 indicates you can view the back side of the leaf where it attaches to the stem and see a white or green line called a collar. You would not be able to see the collar if a leaf was still in the whorl. Many fields this week were at the v5 stage (5 collars visible). At this stage the growing point is above ground and plants can be snapped and will not recover. Researchers suggest making nitrogen side dress applications at v4– v5 stage for optimal N uptake by the plant. Corn plants go through very quick vegetative growth spurt starting at the v5 stage.



Impact of drainage and weeds on corn is apparent in this field showing N deficiency



Weeds that are in local row crop fields

Horsenettle



Virginia creeper



Lambsquarter



Pokeweed



Curly dock



Redroot Pigweed



Mallow




Milkweed








Burdock









Poisonous weeds in pastures

Common name	Problem/symptoms	Toxic ingredient – toxicity dosage
Bouncing bet 	Leaves and stem – delayed for several days; depression, vomiting, abdominal pain, diarrhea	Saponin – amount equivalent to 3% (dry wt.) of sheep wt. killed within 4 hr.
Buttercups 	Leaves and stem especially in flower. Dried hay loses toxicity – anorexia, salivation, weakness, convulsions, breathing difficulty, death	Protoanemonin – toxicity reported to vary with species, age, and habitat. Generally 1-3% of body weight necessary.
Cherry, black 	Leaves (wilted leaves are worse), stems, bark and fruit – anxiety, staggering, breathing difficulty, dilated pupils, bloat, death	Cyanogenic glycosides (cyanide, HCN) – Less than 0.25 lb leaves (fresh wt.) can be toxic to 100 lb animal. Leaves from several small to mid sized branches are sufficient to kill an adult animal.
Clover species	Vegetation – Hairballs; Sweet clover: nose bleeding, anemia, abdominal swelling	Coumarin with sweet clover - varies
Fern, bracken 	Entire plant – Dullness, fever, bleeding, loss of appetite, and salivation	Glycoside thiaminase – Cattle fed 50% bracken for 30 to 80 days was toxic. Others report that only 20% of diet for 30-60 days was toxic.
Garlic, wild	All plant parts – tainted milk and meat	Only toxic in large quantities

<p>Hemlock, poison</p> 	<p>All plant parts – nervousness, salivation, vomiting, diarrhea, weakness, paralysis, trembling, dilation of pupils convulsions, and coma, death</p>	<p>Coniine and others (pyridine alkaloids) – 0.5 to 4% (fresh wt.) equivalent of cattle wt. is toxic. In horses, 0.25% of body weight.</p>
<p>Horsenettle</p> 	<p>All plant parts, esp. the berries - salivation, colic, gastrointestinal irritation, diarrhea, muscle tremors, weakness, drowsiness, and depression</p>	<p>Solanine – remains toxic even in dry hay. Also, 12-36 hr. after mowing, plant releases sugars making it more palatable to livestock, if overconsumed it can cause sudden death.</p>

<p>Jimsonweed</p> 	<p>Entire plant (seeds are most toxic – Thirst, mood swings, convulsions, coma, death</p>	<p>Solanaceous alkaloids – 10-14 oz for cattle or 0.06 to 0.09% (dry wt.) equivalent of animal body wt. is toxic. Toxins increase during the daylight.</p>
<p>Locust, black</p> 	<p>Leaves (especially wilted), seeds, and inner bark - Causes weakness, depression, anorexia, vomiting and diarrhea</p>	<p>Phytotoxin robin, glycoside robitinm – bark extract and powder in amount equivalent to 0.04 – 0.1% of animal wt. toxic to horses. Cattle 10-times more tolerant.</p>
<p>Milkweeds</p> 	<p>Entire plant – depression, muscle tremors, spasms, bloat, difficult breathing.</p>	<p>Glycosides and galitoxin – 0.3 to 0.6% of body weight.</p>

<p>Mustards</p> 	<p>All parts (especially seeds) – oral and gastrointestinal irritation, shaking, salivation, abdominal pain, vomiting, and diarrhea</p>	<p>Thiocyanates, irritant oils, and nitrates (large quantities generally necessary for toxicity)</p>
<p>Nightshade species</p> 	<p>Vegetation, unripe fruit – loss of appetite, salivation, weakness, trembling, paralysis</p>	<p>Solanine – toxic at 42 mg/kg (LD50). 0.1 to 0.3% of body weight.</p>
<p>Pigweed species</p> 	<p>Foliage (worse in drought) – kidney disease, weakness, edema, rapid respiration</p>	<p>Nitrates nitrate oxalates, unknown – 0.5 to 1% of diet. Sheep, hogs, and young calves most susceptible.</p>
<p>Pokeweed, common</p> 	<p>Entire plant, especially roots - gastrointestinal cramps, weakened pulse, respiration, salivation</p>	<p>Phytolactinm – 10 or more berries can result in toxicity to humans. Unknown for livestock, but perhaps 100-200 berries/1000 lb.</p>
<p>Snakeroot, white</p> 	<p>Leaves and stem – constipation, loss of appetite, salivation, rapid respiration. Toxin passes through milk (milksickness).</p>	<p>Trophine alkaloid – varies from 1 to 2% of animal body wt. after 2 weeks. Toxin cumulative.</p>
<p>St. Johnswort</p> 	<p>Flowers and leaves – photosensitivity which leads to redness of muzzle, around eyes, and around white hair.</p>	<p>Hypericin - uncertain</p>

Pasture management



Over mature pasture— more area then can be kept in an immature vegetative state because of low browser pressure.

You can try mowing a small section at 4” height. (1/3ac per animal). Observe their behavior and browsing pressure. Consider mowing another section in 10 days.

This will help restart grass vegetative re-growth with higher quality.



Pasture with higher quality forage, probably was mowed after cows pastured. Still too much pasture area then what is needed by the number of livestock. Can use staged mowing or internal fencing to mob stock smaller sections when in an early vegetative (higher quality) stage.



Over grazed pasture where cattle are eating sticks and stones.

Move to a new pasture with adequate forage if possible or start supplementing

When cattle are moved from this pasture consider spot spraying soft rush, thistles, and docks with 24D. Also consider applying nitrogen at 75lbs per acre to increase rate and quantity of regrowth.