

Oneida County Scouting Report

June 15th, 2023

Weather: For the week ending on June 11th

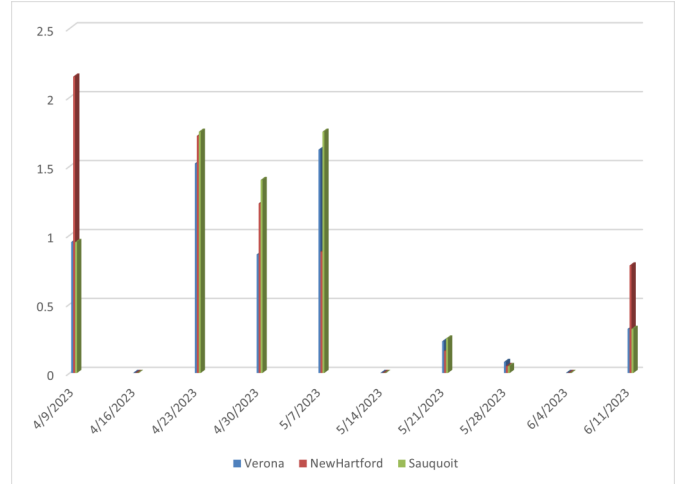
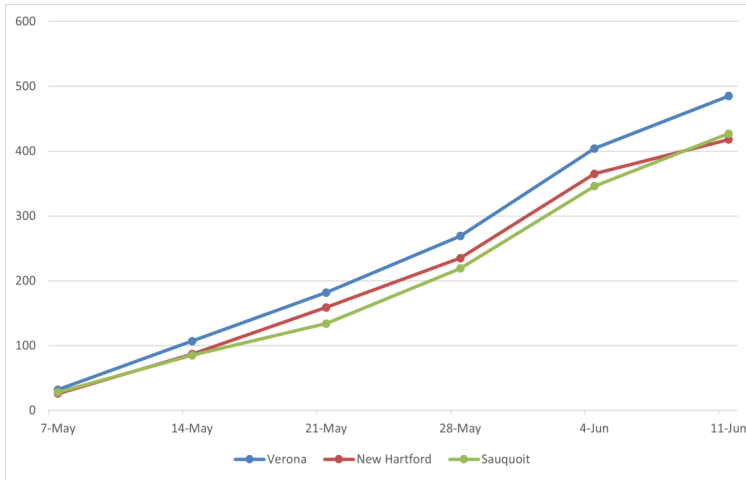
Running total of GDD,s base 50 starting May 1st to June 11th, for **corn 443 GDD base 50**

Rainfall total for the month of April was 4.1” with 1/2 in 3 events. 1.69” for the month of May; 0.47” in the week ending 6/11.

Cropping activities: Very little field activity, some spraying of fungicide in wheat fields, some herbicide applications

GDDs base 50F

Weekly Rainfall (inches)



Crop Conditions:

Hay

Hi Folks, Scouted 1 alfalfa field that was over threshold for alfalfa weevil damage 37 stems with pinhole feeding out of 50 stems. Most of the larva were 3/8” which would be the last larva stage before cocoon. I didn't see and cocoons. The alfalfa wasn't 10 days from harvest so the grower has the difficult decision to apply a pesticide or accept additional damage. We also need to start monitoring for potato leaf hopper. The few new seedlings I scouted had oats as a nurse crop, they had a reasonable population of oats but very few alfalfa seedlings probably due to the competition and reduced available soil moisture

Growing degree Days for peak (50%) Occurrence of Alfalfa Weevil growth stage:

Stage or Event	Accumulated growing degree days*
Eggs hatch	280
Instar 1	315
Instar 2	395
Instar 3	470
Instar 4	550
Cocconing	600
Pupa	725
Adult Emergence	815

* 48F base temperature



First step in evaluating alfalfa weevil damage is to look for pinhole feeding in the upper leaves of your alfalfa plants. If you see that consistently your next step is to pick 50 stems at random and create 2 piles: one with any pinhole feeding and the other with no feeding. If you have 25 or more of the 50 stems with pinhole feeding on the leaves in regrowth you now should take the 3rd step. Use a sweep net at a few locations sweeping the top of the sward and look at the predominant size of the larva. Larva range from 1/16 to 3/8” in size. If you have more than 20 stems with injury and small larva and you are within 10 days of harvest then harvest early. If not within 10 days of harvest use an appropriate insecticide like baythroid or mustang (on mixed stands) after reviewing harvest interval

Potato leaf Hopper



I swept 2 fields this week 6/13 and saw no PLH. One CCE agronomist reported finding some PLH in a field in western NY. Watch weather systems coming up from the south. Dry weather supports potato leaf hopper increases in populations while slowing alfalfa development.

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.

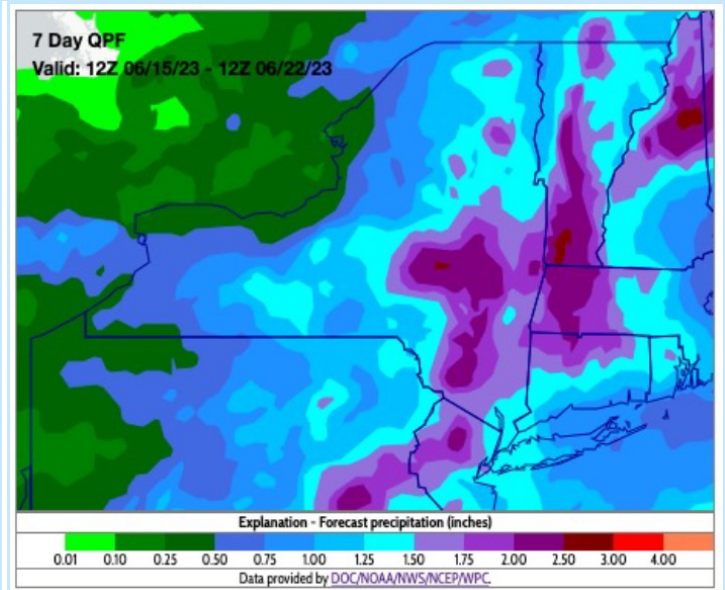
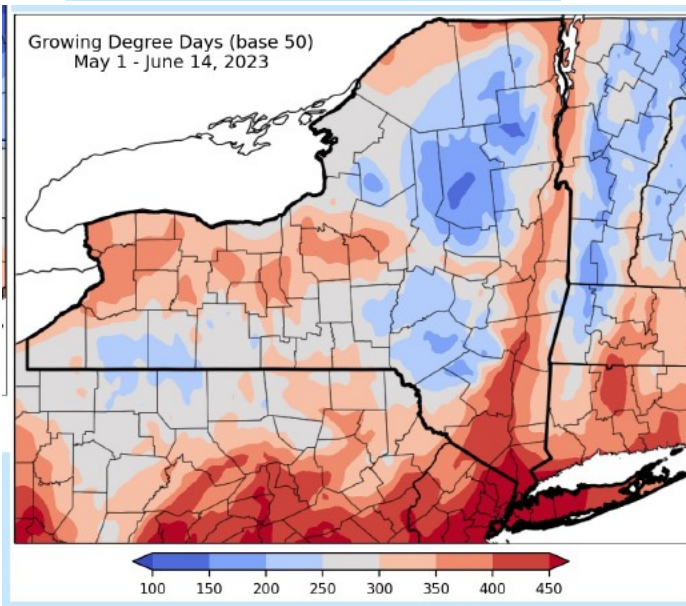
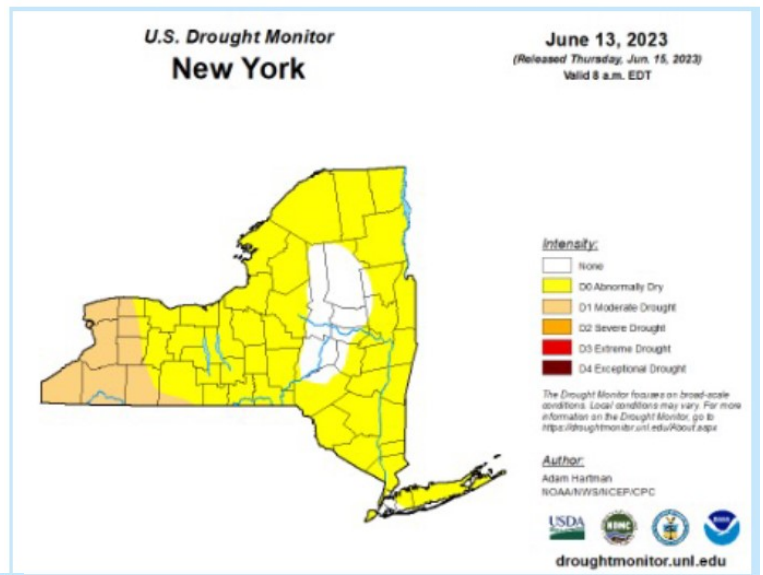
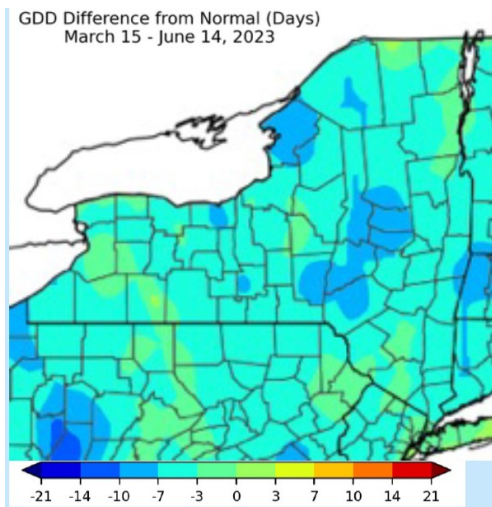
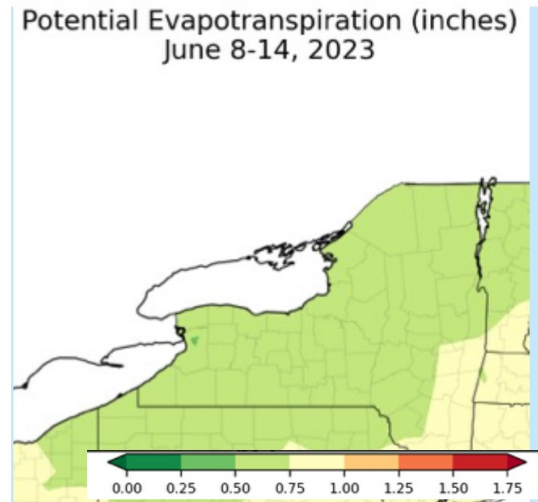
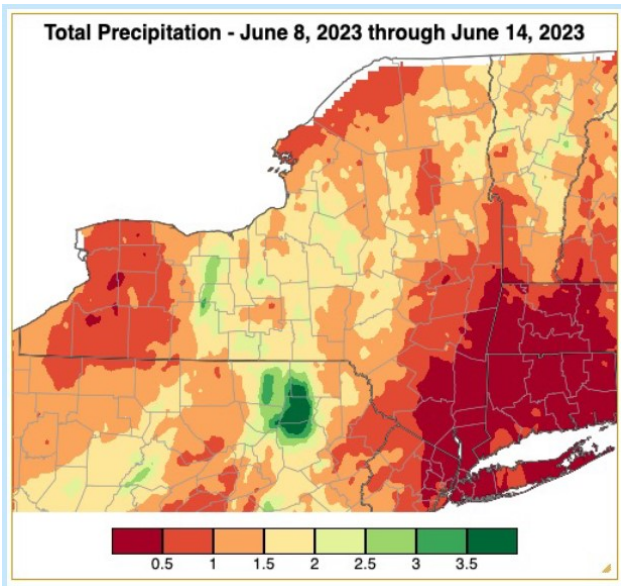
See table below for insecticide efficacy



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.

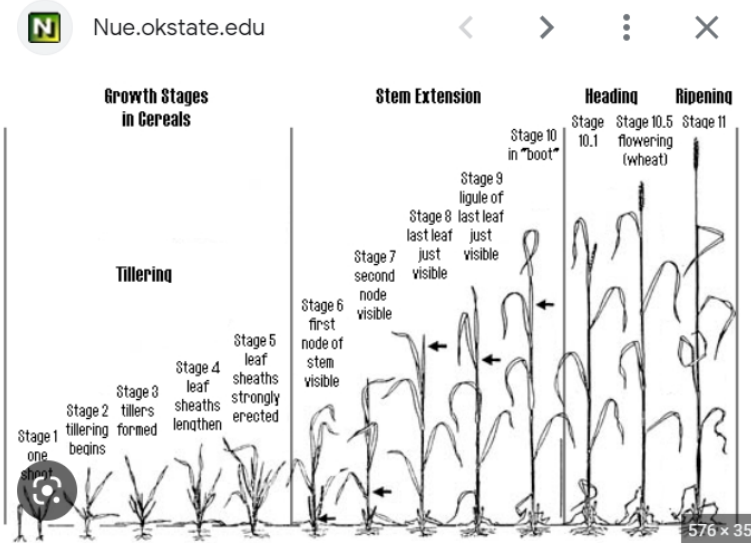
- ♦ **Some grass fields are coming up on 28-30 day harvest timing. The dry weather may have reduced regrowth. It is best to set your cutting height to 4 inches and harvest these fields to spur regrowth now that we have received some rain**
- ♦ **This is a great time to apply modest rates of manure after harvesting grass hay.**
- ♦ **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.**
- ♦ **Growers should start sweeping fields to check on potato leaf hoppers after Mondays storm that came up from the south probably bringing PLH with it.**

Weather



Wheat

Observed some powdery mildew in one wheat field yesterday. Also noted speckling on the lower leaves which suggest earlier infection. Also noted some yellow and red flag leaves dotting some fields which is probably the result of stress from drought conditions. If lower leaves were also yellow you might consider barley yellow dwarf virus but I didn't see that pattern.



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.

This is the time of year when temperatures are below 80F and leaves may be wet that 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 left)

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.



Table 5.7.1. Efficacy of fungicides for wheat disease control based on appropriate application timing^a

Fungicide(s)				Powdery mildew	Stagonospora leaf/glume blotch	Septoria tritici blotch	Tan spot	Stripe rust	Leaf rust	Stem rust	Fusarium head blight	Harvest Restriction
Class	Active ingredient	Product	Rate/A (fl. oz)									
Triazole	prothioconazole 41%	Proline 480 SC	4.3-5.7 ²	U	VG	VG	VG	VG	VG	VG	G	30 days
	prothioconazole 19% tebuconazole 19%	Prosaro 421 SC ³	6.5-8.2	G	VG	VG	VG	E	E	E	G	30 days
	metconazole 10.91% prothioconazole 18.19%	Sphaerex	4.0-7.3	VG	VG	VG	VG	E	E	E	G	30 days
	pydiflumetofen 13.7% propiconazole 11.4%	*Miravis Ace SE	13.7	VG	VG	VG	VG	VG	VG	VG	G	Feekes 10.5.4

Corn and soybeans



Corn and Soybeans



Corn and Soybeans

Recent rainfall is helping to fill gaps in local corn and soybean 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.

Soybean fields had less uniformity in germination than corn fields, possibly due to later planting more shallow placement into drier soils.

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



Herbicides have not been applied to most soybean fields yet. Growers will probably treat fields after the flush of weeds emerge after these recent rain storms.

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.

Table on rain requirements for activation

Single-Active Ingredient Products	Precipitation Required for Activation
Metolachlor (Dual)	0.5 inches on coarse soils, 1 inch on fine-textured within 2 days after application
Dimethenamid-P (Outlook)	Nothing about precipitation amounts mentioned
Acetochlor (Harness/Degree)	0.25 to 0.75 inches within 7 days after application
Pyroxasulfone (Zidua)	When adequate moisture is not received after application, weed control may be improved by irrigation with at least 0.25-acre inch of water.

Flumioxazin (Valor)	0.5 inches before weed emergence
Sulfentrazone (Spartan)	If adequate moisture (0.5 to 1 inch) from rainfall or irrigation is not received within 7 to 10 days after application, a shallow incorporation may be needed to obtain desired weed control.
Atrazine (Aatrex)	Nothing about precipitation amounts mentioned
Metribuzin (Tricor)	In areas of low rainfall, preemergence applications to dry soils should be followed with light irrigation of 0.25-acre inch of water.
Isoxaflutole (Balance)	Most effective in controlling weeds when adequate rainfall is received within 14 days after application
Premixes	Precipitation Required for Activation
Acuron	Nothing about precipitation amounts mentioned
Degree Xtra	0.25 to 0.75 inches within 7 days after application
Corvus	Most effective weed control when applied and subsequently moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence within 14 days after application
Sonic	soil moisture, organic matter content and soil texture. If adequate moisture (0.5 to 1 inch) is not received within 7 to 10 days after the treatment with Sonic, a shallow cultivation may be needed to obtain desired weed control.
SureStart/TripleFlex	Precipitation or sprinkler irrigation of at least 0.25 inch is required to bring SureStart into contact with germinating seeds.
Verdict	Must be activated by at least 0.5 inch before weed seedling emergence



One bucket trap is set up in Kirkland to identify when armyworm flights occur in our county.

Another bucket trap is set up in Verona to help identify flights of black cutworm into our county.

9 or more moths of either spp in a 2 day period would indicate a significant flight.

300 GDDs from this date eggs will hatch and growers would be alerted to check their fields for cut plants

In western NY they have had significant flights (50+ moths per week) and are seeing some fields with cutworm damage

We should continue to scout for cutworm/armyworm until corn is v4 stage.



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

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



Seed corn maggot trial





Oneida county CCE staff place sticky cards at three corn fields each week, collect the cards and send them to Cornell. Some insects in the field fly into the sticky card. Cornell staff count the number of seed corn maggot adults (flies) on the cards. These cards were placed the 1st week of April and will be posted until the 2nd week in June. CCE staff across the state are participating in this effort to measure the risk this pest poses to corn and soybeans in our state.



We also bury 10 corn seeds in two locations and 10 lima beans at 2 locations in each of these fields and collect the seeds every 2 weeks. These are also sent to Cornell to identify feeding damage to the seed and trap some of the organisms causing the damage.




We have completed this 10 week study now and will share the results when they become available. Thankyou to collaborating farmers







There are at least 7 sites where 3 treatments: neonic treated seed, Anthranilic diamide treated seed and no insecticide treated seed are being planted in replicated plots by collaborating farmers and CCE staff. The objective is to measure the effectiveness of these 2 groups of insecticides in controlling pests that attack corn seeds.

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 robininm – 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>