

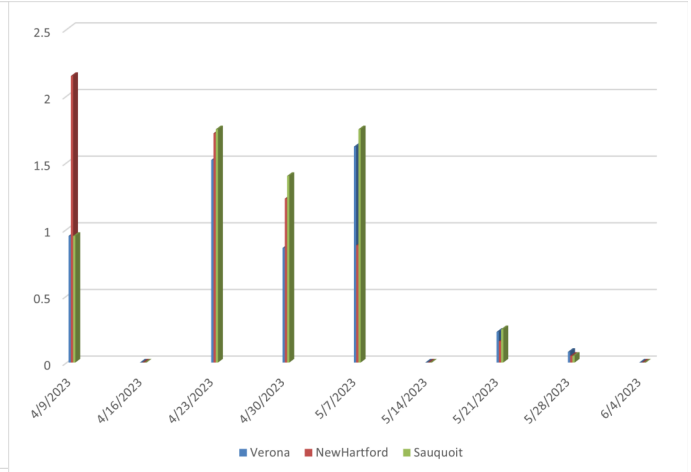
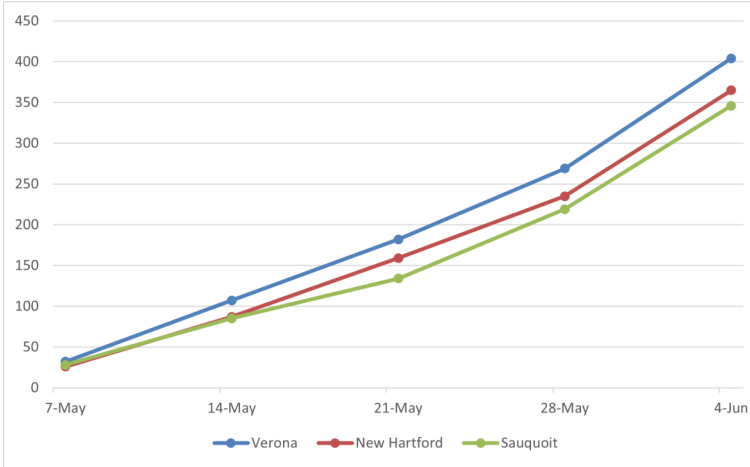
Oneida County Scouting Report

June 8th, 2023

Weather: For the week ending on June 4th

Running total of GDD,s base 48 starting April 3rd to May 28, for alfalfa weevil = 631 (look at chart below) 371 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; 0.27" in the past 4 weeks.

Cropping activities: Growers continued to plant corn and soybeans, chop hay silage and harvest dry baled hay.
 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 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:

Potato Leafhopper Sequential Scouting Plan

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

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

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

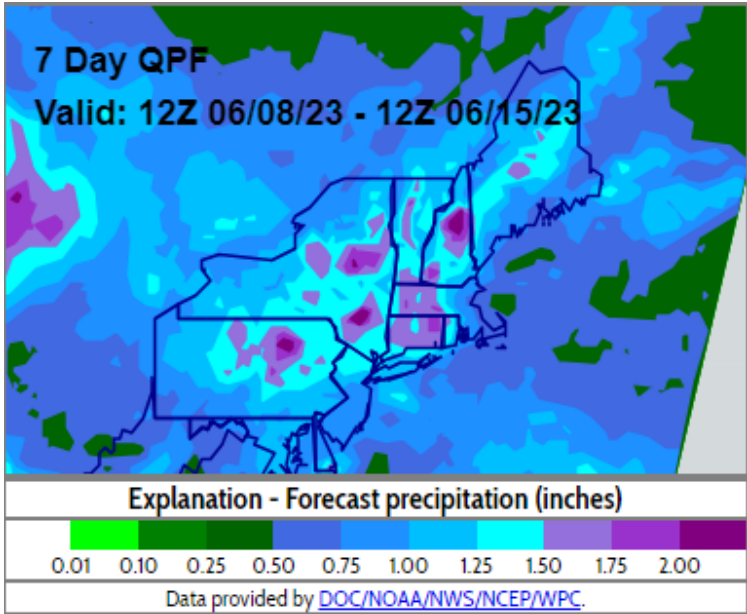
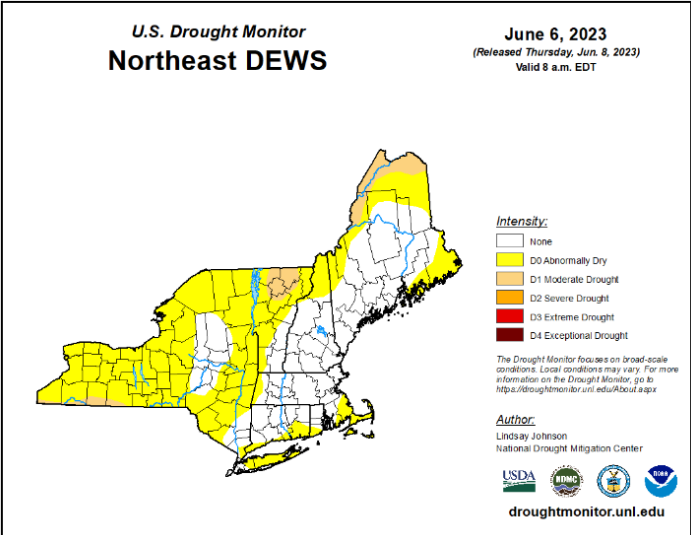
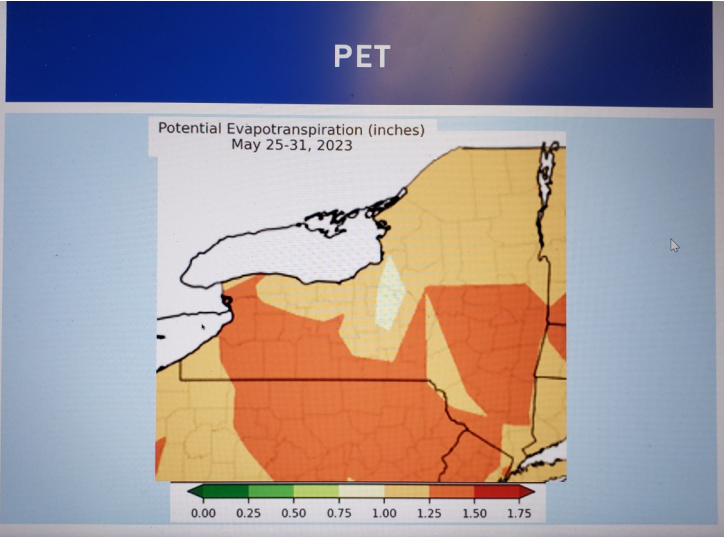
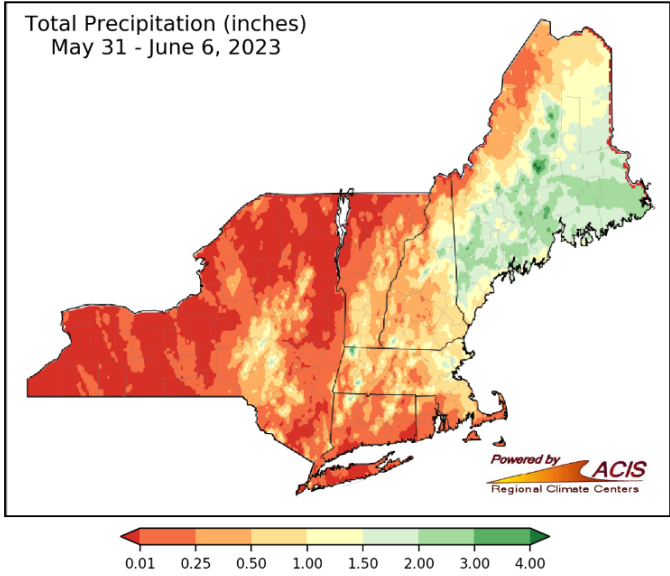
A chart was developed through research to determine the economic threshold for PLH in alfalfa at different heights. An example would be: At 3" height of alfalfa an economic threshold would be reached at 9 potato leaf hoppers in 30 sweeps but if you had 2 or less PLH in 30 sweeps you would be below the 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.

Weather





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



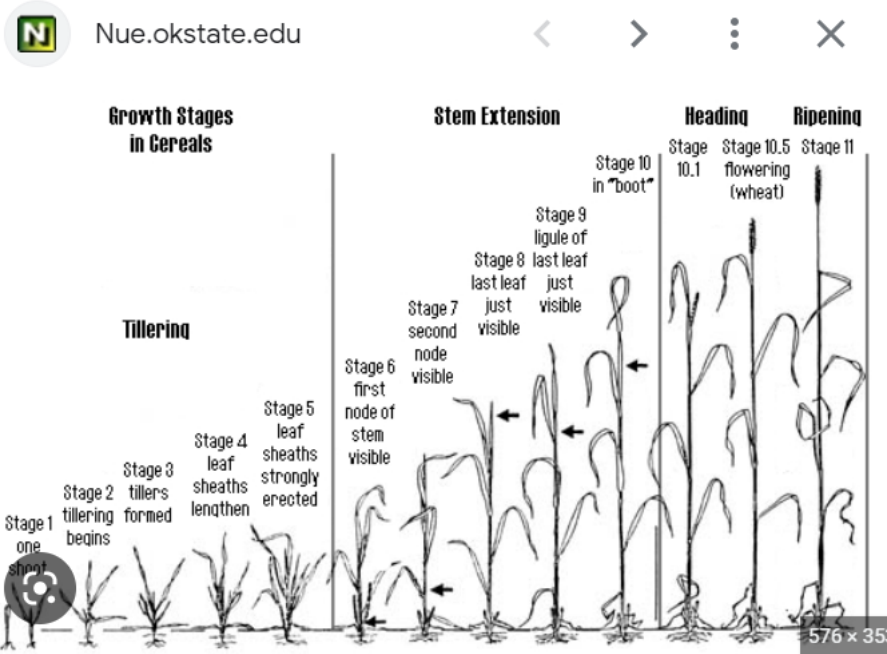
Active Ingredient (Example Product(s))	Alfalfa Weevil	Armyworm	Pea Aphid	Potato Leafhopper	Comments
alpha-cypermethrin (*Fastac)	X	X	X	X	
cyfluthrin (*Baythroid XL)	X	X	X	X	For use in mixed stands (alfalfa/grass); see label.
dimethoate (*Dimethoate)	X		X	X	
flupyradifurone (*†Sivanto)			X	X	
lambda-cyhalothrin (*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.

Nitrogen management on hay fields

- ◆ 2-cut system for modestly priced horse hay– a soil test is important to identify if there are any significant deficiencies otherwise it may be difficult to recoup significant costs of N fertilizer
- ◆ Grass hay for beef– you will most often get a return from Nitrogen applications to grass hay for beef. 75 lbs of N per acre per cut is a reasonable way to feed the crop as you go. Soil test every 3 years
- ◆ Grass hay for high producing milking cows can provide a highly digestible fiber with protein levels that can meet their needs. 100 lbs of N and 20lbs of sulfur / ac should be applied to these fields in the early spring. An additional 75lbs of N/ac after each cut.
- ◆ Alfalfa hay needs no additional N if there are 5 or more crowns/sq ft. Soil test previous to the last **year of corn and apply lime 9 months or more before planting alfalfa. Add adequate rates of P and K at planting based on soil tests. Take another soil test in the 3rd year of the stand. By this time K from manure applications during the previous years of corn production may be running low. Apply potassium at rates recommended by the soil test.**

Wheat

Some early planted fields had heads with flowers 6/1. Did not see many fields being treated with fungicide. Penn State FHB model shows no risk at this time.



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

Gary Bergstrom identified stripe rust in field in western NY.
Also found field with powdery mildew.

Local grower also saw what looked like rust in a field in Madison county

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**.

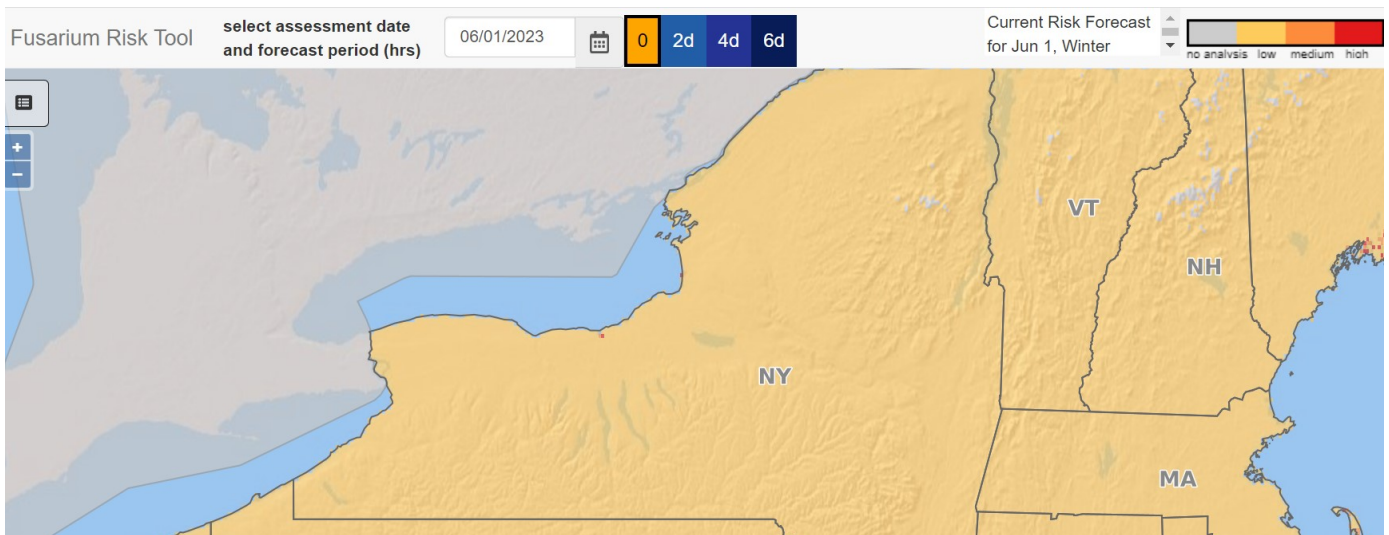


Table 5.7.1. Efficacy of fungicides for wheat disease control based on appropriate application timing^a

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

Its all about rainfall now. Many folks finished planting and some folks applied preemergence herbicides as well.

Now seeing many fields that are V1 to V3 stage corn also seeing a few soybean fields that are unifoliolate to 1st trifoliolate stage now. 6/5

We all know that we need roughly an inch of rain to activate preemergence herbicides and a similar amount to get seeds to germinate. Below is a breakdown of water requirements for activation of some common herbicides.



Most of the corn fields I have seen had uniform germination and have good seed spacing.

Growers are looking at extended weather forecasts and trying to make a decision to go with their usual preemergence herbicide programs or to wait and switch to post emergence.

The best recommendation I can make at this time is

In fields with emerged weeds consider a burn down like glyphosate combined with your residual program.. Like glyphosate + accuron or Dual prowl atrazine + glyphosate or glyphosate, dual atrazine and Yukon.

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

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	

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	







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.







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 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>