

Oneida County Scouting Report

August 4, 2017

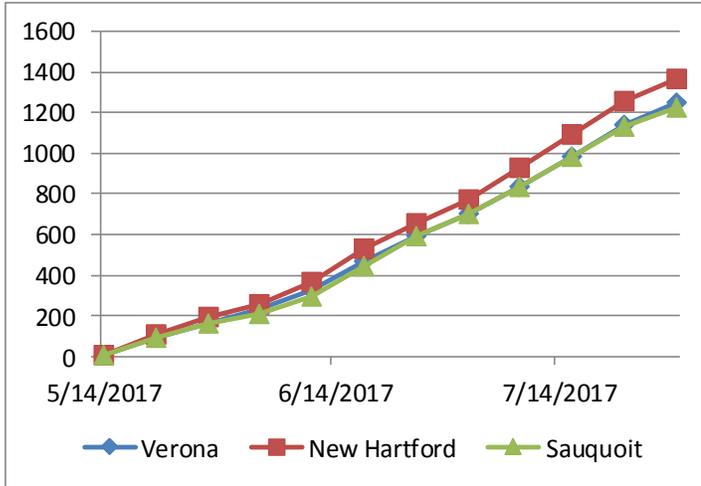
Weather: For the week ending on July 30th

Running total of GDD,s base 50 starting May 14th as of July 30th for corn = 1279

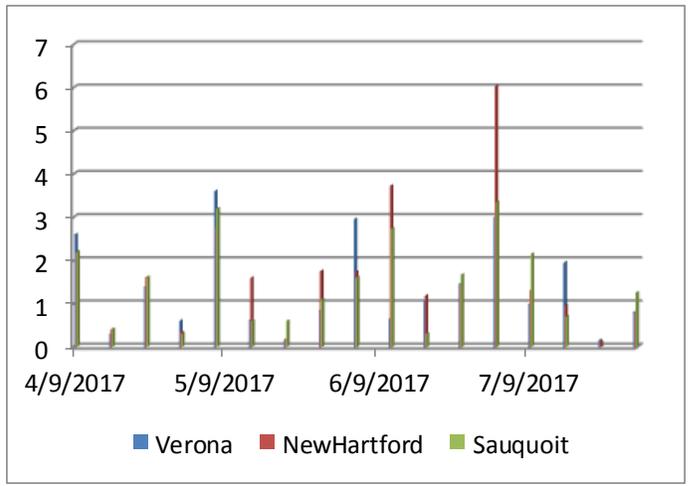
Rainfall on Monday, Tuesday and Thursday last week made field activities difficult. But since there were isolated showers some field work was accomplished

Cropping activities: There was some more progress in wheat harvest, hay harvest, corn N side dressing and land preparation for summer hay seedings.

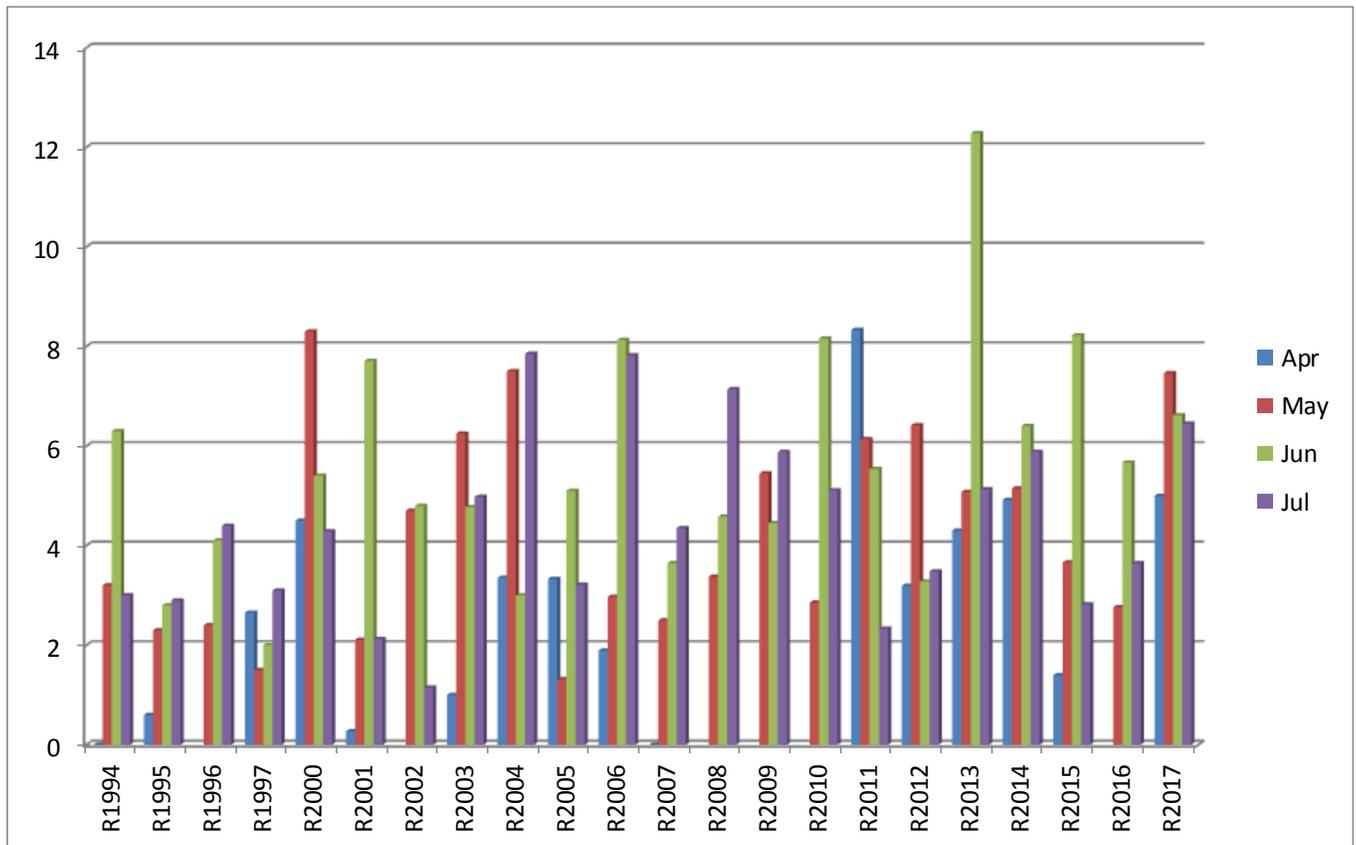
GDDs base 50 F Oneida County 2017



Weekly rainfall (in) Oneida County 2017



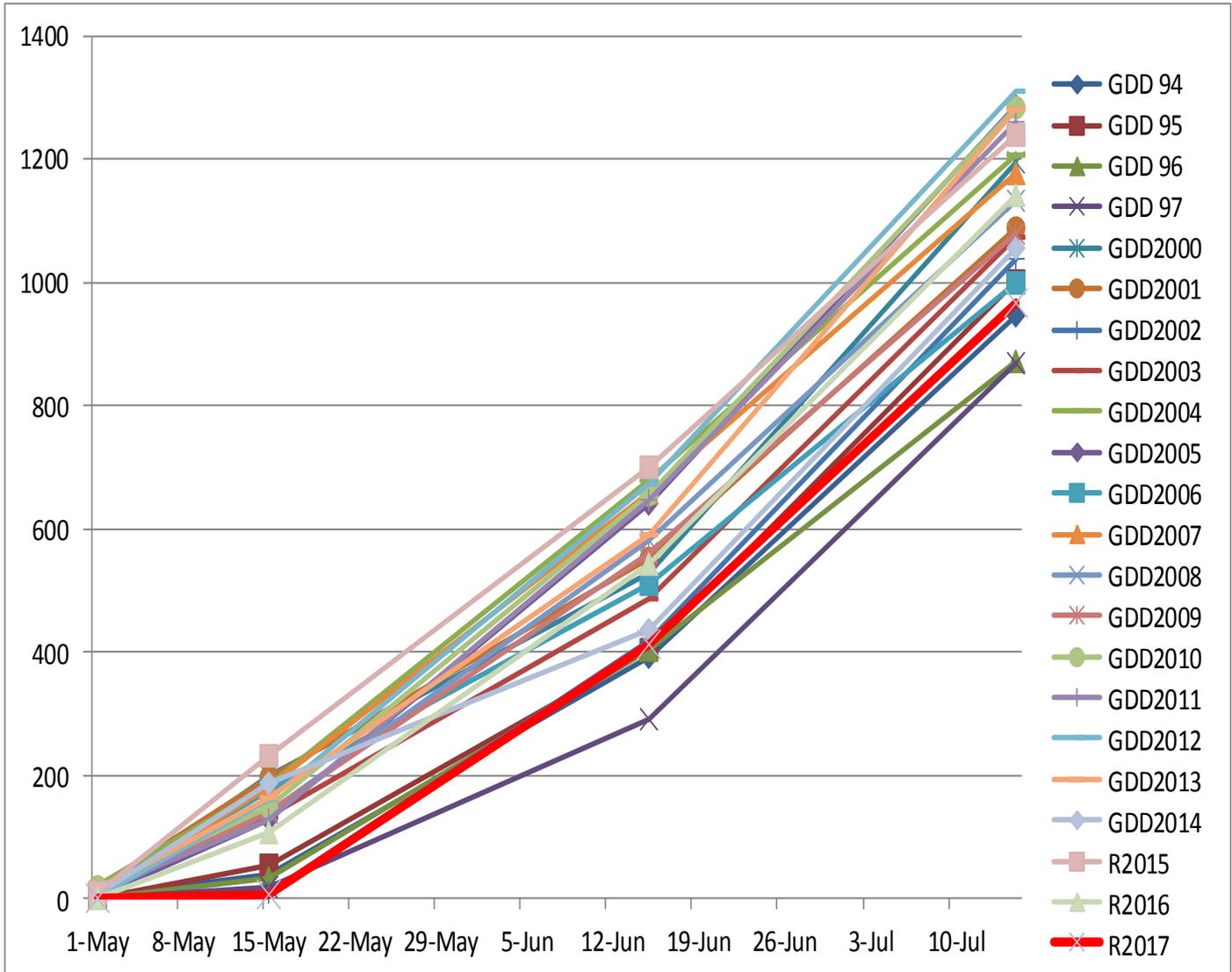
Oneida County Rainfall Comparison 1994 - 2017 (inches)



You can see from the comparison chart on the previous page that we have been averaging close to 6" of rain each month since April coming out of a winter with some significant snowfall.

What you cant see in the chart is the distribution of rain: it rained on 13 days in April, 18 days in May, 16 days in June and 12 days in July.

Oneida county Growing degree days (86/50) comparison 1994-2017



We didn't even start tracking GDDs for corn producers until May 15th because there was a great delay in planting corn this season. We had many growers still planting corn fields after May 15 through June and they will have to subtract the GDDs accumulated before they planted their corn.

The thick red line is 2017 growing season accumulation of GDDs through mid July. You will note that it is one of the lowest GDD accumulations since we started tracking this locally in 1994.

Growers should mark their calendar when fields are in full tassel and circle the date 6 weeks later to indicate a time to start checking whole plant moisture levels for silage harvest and /or 8 weeks later to check for black layer development of their corn kernels.



Potato leaf hopper is still present in most alfalfa hay fields. In recent scouting (7/31/2017) I found, 1, 10, 11, 14,22 and 60 PLH/30 sweeps in local fields. Some had been sprayed with an insecticide .

None of the fields were above threshold and would not need to be sprayed.

Remember that PLH numbers can climb especially if we suddenly have a dry period. It is very important to monitor new seedlings.

PLH can reduce yield by as much as 1/2 ton per acre and also reduce the protein content of your hay. It is one of the most significant pests of alfalfa in our area. Remember that if you see leaf hopper burn you have already lost yield and quality. The only way to prevent loss is to scout fields regularly and that means sweeping your alfalfa fields. You start by purchasing or making a sweep net that is 15” in diameter. Walk 50’ or more into one of your alfalfa fields, swing the net in a pendulum motion in front of you keeping the net in the top 3-5” of the stand counting out 10 sweeps as you move forward into the stand (that is one set of sweeps). You can picture that you just took a sample of the insects that are in the top 5 “ of your alfalfa’s canopy about 6’ wide by 15’ long. When you get to the end of your last sweep give the net a quick snap down and up shaking all the insects to the bottom of the net. Then grab the net about mid way trapping all of them in the bottom of the net. Push your fist upward through the hoop of the net and turn so the net is in the sunlight. Quickly observe the rim of the net and count any PLH that you can see above where you have grabbed the net. With you other hand pull the net from the center upward exposing a little bit of it at a time so that you can count the PLH in the net. They can and will fly out of the net. Count all of the PLH until you have looked at the entire contents of the net. Turn the net inside out walk towards the center of the field on a diagonal and repeat the process adding each additional PLH to the count and repeat one more time at the far end of the field. You should take a ruler and mark the base of your handle at 3”, 8”, and 10”. At each site before you sweep you should measure the height of your alfalfa determining if the alfalfa is < 3”, 3-8”, 8-10” or >10”. Look at the chart below to determine whether you are over or under the PLH threshold for management. If the number of PLH you counted is at or less then the number in the N column of the chart associated with the average height of the alfalfa, then you are under threshold. If the number of PLH is higher then that in the “N” column but lower then that in the M column you must do another set of sweeps adding to your count and comparing the total with the chart and the number of sets of sweeps. If your count is in between the numbers in the N and M column for the number of sweeps move to another location and take another set of sweeps add to your count and compare to the chart. Repeat these steps until you have a definitive number that is either less then or equal to the number in the N column and you are under threshold or equal or greater then the number in the M column and you are over threshold.

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

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Most growers took advantage of the recent run of dry days and took their second harvest which was delayed due to all of the wet weather.

Consider applying potassium following harvest if needed but limit traffic up to 5 days after harvest otherwise you risk damaging alfalfa crowns.



The two pictures below are from the same field: below left taken early this spring and the second taken 7/26 about a week after harvest. The alfalfa is coming back very slowly after second harvest perhaps because of PLH impact on root reserves. If you just harvested 2nd you could no-till red clover at 8-10lbs/ac into your weaker stands to help improve legume content and protein levels for those fields that are chopped for silage.

This is also the time of year to consider planting summer seedings. Kill existing weeds with glyphosate at 2 lbs ai per acre wait 3 days and prepare fields for planting. Some recommended seeding rates: for well drained fields 12-15lbs of alfalfa with 3-4 lbs of either meadow or tall fescue. On wetter fields 10 lbs of red clover and 6-8lbs of reed canarygrass.



Corn

Gary Bergstrom, Cornell plant pathologist, identified the disease causing these lesions as anthracnose leaf spot. The causal organism can be found in corn residue. The spores are splashed onto the leaf of a susceptible hybrid and begin infection. Infection can continue on the foliage of the plant and if upper leaves are significantly infected can cause significant crop loss. This disease can also infect the stalk through wounds like those caused by hail or insects and can cause stalk rot.



Some early planted corn fields (1st week in May) are tasseling (7-27-2017). When you see full tassel in your corn fields mark your calendar. Corn takes approximately 45 days from that date to be at a stage and moisture content for silage harvest (600-800 GDDs after tassel). Most hybrids are physiologically mature (black layer) 60 days after tassel.



Corn rootworm (CRW) Corn has new silks in many local corn fields now attracting corn rootworms. **This is an annual opportunity for local growers to save money on future seed purchases.** Taking a half hour to scout a field and scouting the field once a week for 3 consecutive weeks for corn rootworm thresholds can indicate if you have a need for CRW control. The scouting procedure is as follows: step into the field 50', grab the silk of the corn plant, start counting CRW on the plant from top to bottom counting western corn rootworms as 1 and northern corn rootworms as 0.5 western equivalents (see pictures below). Go to a plant 10 ft away and continue your count, go to a third plant and continue your count. Repeat this procedure in the middle of the field and then at the far end of the field. Compare your total count with the chart below. So if you counted beetles on 9 plants and found only one western corn rootworm then you were under threshold. If you counted 17 or more you are over threshold. If you were somewhere in between you have to continue your counting until you are either over or under threshold for the number of plants in your sample. If you are over threshold, you have the option to rotate to another crop, if this was your first year of corn next year you could use a seed treatment like poncho 1250 or you could plant a GMO with BT for corn rootworm.

Western corn rootworm



Northern corn rootworm



| Sequential Sampling Plan for Corn Rootworm | | | | | | | | | | | | | | | |
|--|---|----|----|-------|----|----|----|-------|----|----|----|-------|----|----|----|
| plant | N | T | RT | plant | N | T | RT | plant | N | T | RT | plant | N | T | RT |
| 1 | | | | 15 | 7 | 23 | | 29 | 20 | 36 | | 43 | 34 | 50 | |
| 2 | | | | 16 | 8 | 24 | | 30 | 21 | 37 | | 44 | 35 | 51 | |
| 3 | | 11 | | 17 | 8 | 25 | | 31 | 22 | 38 | | 45 | 36 | 52 | |
| 4 | | 12 | | 18 | 9 | 26 | | 32 | 23 | 39 | | 46 | 37 | 53 | |
| 5 | | 13 | | 19 | 10 | 27 | | 33 | 24 | 40 | | 47 | 38 | 54 | |
| 6 | | 14 | | 20 | 11 | 28 | | 34 | 25 | 41 | | 48 | 39 | 55 | |
| 7 | | 15 | | 21 | 12 | 28 | | 35 | 26 | 42 | | 49 | 40 | 55 | |
| 8 | | 16 | | 22 | 13 | 29 | | 36 | 27 | 43 | | 50 | 41 | 55 | |
| 9 | 1 | 17 | | 23 | 14 | 30 | | 37 | 28 | 44 | | 51 | 42 | 55 | |
| 10 | 2 | 18 | | 24 | 15 | 31 | | 38 | 29 | 45 | | 52 | 43 | 55 | |
| 11 | 3 | 19 | | 25 | 16 | 32 | | 39 | 30 | 46 | | 53 | 43 | 55 | |
| 12 | 4 | 20 | | 26 | 17 | 33 | | 40 | 31 | 47 | | 54 | 44 | 55 | |
| 13 | 5 | 21 | | 27 | 18 | 34 | | 41 | 32 | 48 | | 55 | 44 | 55 | |
| 14 | 6 | 22 | | 28 | 19 | 35 | | 42 | 33 | 49 | | | | | |

How will the variability in maturity of corn in your field impact you



Corn rootworm scouting may be more difficult or inaccurate in fields with a great deal of variability in time of silking and pollen shed. CRW are most active in corn fields at the time of silking feeding on pollen and silk. When silks age and turn brown CRW can exit the field looking for other fields with fresh silk and pollen. Scouting protocols work best in even aged stands with synchronized silking and results may not be as accurate when CRW populations may be concentrated in areas of the field where new silk is developing.

Pollination It only takes one pollen grain to successfully fertilize an ovule on the corn ear. Millions of pollen grains are shed by a single tassel to contact up to 1000 silks on a single ear to successfully fertilize the attached ovule to create 400-600 kernels on a typical ear. Complete silk emergence occurs over 4-8 days with silks growing up to 1.5” per day. Silks are receptive for approximately 10 days after emergence. Pollen shed from tassels is weather dependent: wet weather stops pollen shed. An individual tassel takes approximately 7 days to shed all of its pollen, with normal field variability this time period may extend for 14 days. Uneven aged stands create a potential for incomplete pollination.

Harvest timing of harvest in a field with great variability in maturity is a compromise, with growers trying to time harvest so the average moisture content is close to the moisture content that is best for their storage unit. The use of inoculants may be more important in these situations to help maximize fermentation especially if fields have been exposed to a killing frost.

Western bean cutworm is a pest of corn that feeds on ears affecting yield and leaves wounds that may be sites for infection by diseases that may impact crop quality. CCE staff have been monitoring this pest for over 6 years with moderate numbers of moths being trapped each season rotating locations of traps around the county. We have averaged less than 30 moths / trap trapped in an entire season over that time frame.

This year we were experiencing the same results with a total of 13 wbcw moths over the past 5 weeks in Marcy. The last 2 weeks we have had a significant catch in the trap in Munnsville which is up to a total of 80 wbcw for the same period.

Northern NY has much higher counts than this (several hundred to a thousand per trap) and only recommend spraying an insecticide at the highest trap counts.



Soybean

Soybean Aphid Alert

Observing soybean aphids in fields mostly at 4-14 aphids/plant (7/31/17) Economic threshold for soy aphids is 250 aphids per plant, with numbers rising, in soybeans that are beginning flowering to soybeans with seeds that fill the entire pod, and with no real predator population.

Found one field over threshold in Cassville two weeks ago.

Other signs that you have a more severe aphid population: upper leaves appear crinkled, white skins of aphids on upper leaves, ladybird beetles flying across your path as you walk through the field.



There are a few soybean fields that were planted late that are in a vegetative stage of development. Most fields have hit first flower or full flower at this time(7/31/17). Some more developed fields are at beginning pod now as seen in the picture to the left.

Starting to see **Japanese beetles** in soybeans and foliar damage. Must exceed 25% foliar removal in vegetative stage beans or 15% in beans that are in a reproductive stage to impact yield.



Volunteer corn can be found in some local fields as seen in the picture to the left. Select and fusilade can be used to take care of this problem each with a 60 day pre harvest interval. If it is possible, spot treatment with a hand held applicator is best to reduce potential yield losses on beans that are in a reproductive stage of development. Mix with crop oil to improve effectiveness.

Wheat

Wheat harvest is in progress. A number of local fields have been harvested now with reports of good yields 70-90 bu/ac. The first quality test report is in and DON was below threshold. This sample was from fields that had a timely application of Car-ramba.

Growers now seeing some sprouts.

Starting to see some marestail (horseweed) in wheat fields this year. Some biotypes are resistant to ALS herbicides like Harmony. 24D is a reasonable choice for growers to control marestail in the spring.



Some fields were not planted this year because of the wet weather. Some growers are planning on planting wheat in some of these fields.

I have seen growers making herbicide applications to these fields over the past two weeks.

Spraying a combination of a higher rate of glyphosate (2lbs ai/ac) with 1/2 pint of 24D at least 2 weeks ahead of planting can clean up fields before planting wheat.



Oats are not ready for harvest yet but will be soon.

I am not expecting a bumper crop with the weather they have been exposed to this season.

Results from studies at Cornell this season indicate that the two oat varieties that have the greatest resistance to crown rust of the varieties tested were newdak and hayden