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Still Time to Consider Late Season Cover Crops

R. Hadad, CVP

Everybody wants the benefits of cover crops but before you know it, the season gets way ahead of you. With the dry season that most growers have experienced, water holding capacity of many soils is lacking. If you were in the heavy rain belt this summer, then those huge storms may have caused erosion. Some plantings have been harvested out and now there is bare ground with weeds growing faster than your crops seemingly did. Cover crops can offer some benefits for these issues. Considering that milder falls can extend the cover crop growing season by several weeks, now is the time to give it a try.

Our colleagues over with UMass Extension put out a very good article on late season cover crop varieties. Keep in mind that some will over winter and will need to be taken out in the spring. So use them in fields where summer plantings would go in rather than trying to make the covers work for spring crops. Remember, it takes 3-6 weeks for some cover crops to decompose sufficiently for the soil to be worked and provide nutritional benefits to your crops.

For the complete UMass article, go to

https://ag.umass.edu/sites/ag.umass.edu/files/newsletters/august <u>18</u> <u>2022</u> <u>vegetable_notes.pdf</u>. Below is an abridged version complete with seeding rates and recommendations for mixes.

Late Season Cover Crops

Grasses:

<u>Annual or Italian ryegrass</u> (Lolium multiflorum) and perennial ryegrass (Lolium perenne) are gaining popularity with some growers because of increasing availability of commercial varieties such as 'Fria Annual Rye'. These grasses have dense root systems that outcompete weeds, protect against erosion, and are easy to incorporate in the spring. Annual ryegrass can tolerate some flooding. Perennial ryegrass is more cold-hardy but also harder to kill if it goes to seed. Both are shade tolerant but may not germinate very well under dry conditions. Plant 6-8 weeks before the fall frost date. The seed is small and light, so specialized equipment such as a Brillion seeder is needed to seed a large area. Seeding rate: 20-30 lbs/A broadcast; 10-20 lbs/A drilled; 8-15 lbs/A mixed with a legume.

<u>Winter or cereal rye</u> (Secale cereale) is the most common cover crop used by growers in Massachusetts. It is inexpensive, easy to get and to establish, and can be seeded up until 2 weeks before a killing frost. However, it is best planted before September 15th in order to recover the available N from the soil and produce enough canopy to outcompete weeds and protect the soil from erosion. It consistently overwinters here and will continue to grow in the spring, producing up to 7,000 lbs/A of biomass contributing to soil organic matter. It should be seeded with a legume to keep the C:N ratio low, making more N available in the spring. It can take several weeks and multiple tillage passes to break down in the spring; some growers are hesitant to use this cover crop because of the longer decomposition rate and allelopathic effects on direct-seeded spring crops. Seeding rate: 90-120 lbs/A broadcast; 60-120 lbs/A drilled; 50-60 lbs/A mixed with a legume.

About VegEdge

VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension partnership between Cornell University and CCE Associations in 14 counties.



The newsletter is a service to our enrollees and is intended for educational purposes, strengthening the relationship between our enrollees, the Cornell Vegetable Program team, and Cornell University.

We're interested in your comments. Contact us at: CCE Cornell Vegetable Program 480 North Main Street, Canandaigua, NY 14224 Email: cce-cvp@cornell.edu Web address: cvp.cce.cornell.edu

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The next issue of VegEdge newsletter will be produced on August 31, 2022.

Accumulated Growing Degree Days, 8/22/22

Nina Gropp, CCE Cornell Vegetable Program

Accumulated Growing Degree Days (AGDD)

Location**	2022	2021	2020
Albion	2084	2232	2078
Appleton	1994	2007	1992
Arkport	1805	1724	1804
Bergen	2027	1988	2024
Brocton	2032	2023	1999
Buffalo*	2097	2178	2163
Ceres	1695	1791	1741
Elba	1913	1894	1930
Fairville	1961	1925	1983
Farmington	1958	1972	1993
Fulton*	1955	1924	2051
Geneva	2056	2021	2068
Hammondsport	1954	1904	1997
Hanover	2017	2008	1979
Jamestown	1736	1759	1735
Lodi	2232	1659	2105
Lyndonville	1932	2018	2045
Niagara Falls*	2200	2125	2047
Penn Yan*	2116	2108 21	
Rochester*	2091	2047	2063
Romulus	2113	2080	2136
Sodus	2137	2087	2023
Versailles	1950	1923	1924
Waterport	1995	1986	2013
Williamson	1933	1900	1940

* Airport stations

** For other locations: http://newa.cornell.edu

Continued from page 1

Winter wheat (Triticum aestivum) is increasingly being used as a cereal grain and as a cover crop. It is winter hardy, but does not grow as tall or mature as quickly as rye so there is no rush to kill it in early spring and risk compacting wet soils. Wheat is excellent for erosion control, scavenging N, P, and K, building soil organic matter, and improving tilth. For best results, plant it in late-summer to early-fall, before September 15th. Best growth will be in well-drained soils with moderate fertility. Rye is a better choice on wet soils. Wheat works well as a nurse crop for legumes such as hairy vetch, clover, or peas. Seeding rate: 90-160 lbs/A broadcast; 60-120 lbs/A drilled; 60-90 lbs/A mixed with a legume.

Triticale (x Triticosecale) is a hybrid between wheat and rye. It can be seeded as early as August and can produce more fall growth than winter wheat, providing more weed suppression and erosion control. Seeding rate: 90-100 lbs/A broadcast; 75-80 lbs/A drilled; 60-90 lbs/A mixed with a legume.

Oats (Avena sativa) come up quickly and can be seeded in the late-summer. It is best planted before September 15th, similar to winter rye. Unlike winter rye, oats will winterkill in Massachusetts, making for simpler field preparation in the spring. However, oats provide less weed control and lower organic matter contribution. To maximize nitrogen carry-over to the following crop, mix with a legume that will overwinter such as hairy vetch. Seeding rate: 110-140 lbs/A broadcast; 80-110 lbs/A drilled; 60- 90 lbs/A mixed with a legume.

Legumes

Red clover (Trifolium pratense) is a short-lived perennial that is somewhat tolerant of soil acidity and poor drainage. Mammoth red clover produces more biomass for plow-down than medium red clover, but does not regrow as well after mowing. Mammoth will often establish better than medium red clover in dry or acid soils. Sow in early-spring or late-summer. Red clover can be undersown in mid-summer into corn or winter squash before it vines, and into other crops such as fall brassicas if soil moisture is plentiful. Clovers germinate and grow slowly and so can be planted along with a faster-growing grass and/or peas as a nurse crop. Clovers are a good option to include in a field that won't be planted into a cash crop for a full year or more. Seeding rate: 10-15 lbs/A broadcast; 6-15 lbs/A drilled; 6-10 lbs/A mixed with a grass.

Field pea (Pisum sativum subsp. arvense) also known as Austrian winter peas (black peas) or Canadian field peas Oats and peas (spring peas) should be planted mid-August to mid-September in much of New England. These peas fix nitrogen more quickly in dry conditions than white clover, crimson clover, or hairy vetch. Field peas are susceptible to Sclerotinia so don't plant them in a field with a history of white mold. Drill or incorporate seed 1-3 inches deep to ensure good soil moisture contact. Seeding rate: 80-120 lbs/A broadcast; 75-100 lbs/A drilled; 60-80 lbs/A in a mix.



photo from CCE Fact Sheet 9 showing a field of mustard with bright yellow flowers

Brassica

Brown mustard (Brassica juncea) found in many of the 'Caliente' seed mixes is a biofumigant planted to combat root-knot nematode and a variety of soil-borne fungal pathogens, including Fusarium, Verticillium, Rhizoctonia, Pythium, and Phytophthora capsici. It is also allelopathic against weeds. If allowed to flower, this crop is highly attractive to honey bees. Successful biofumigation with this cover crop is achieved by following these steps: 1) Apply adequate fertility (50 lbs N/A and 20 lbs S/A); 2) allow it to flower before incorporation; 3) mow, disc, or rototill under, and roll or pack the soil immediately; 6) irrigate after incorporation or incorporate before rain to enhance fumigation. Plant brown mustard in late-August through September. Seeding rate: 10-15lbs/A broadcast; 8-12 lbs/A drilled.

CROP INSIGHTS

BEETS

A suspected case of powdery mildew (PM) in beets occurred in a very dry field in our area recently. Be on the lookout for powdery spores on the upper and lower surfaces of the leaf as well as the petioles (leaf stalk). PM is sporadic in our area. Spores are wind-blown and may have traveled here from other regions. Quadris or sulfur are the products of choice if you are targeting PM. Most fields received rain this week. Cercospora leaf spot (CLS) can increase rapidly during wet weather. Rainsplash will spread spores through the field. According to the CLS Decision Support Network https://newa.cornell.edu/beet-cercospora-leaf-spot, the risk of CLS infection was moderate to high (mostly high) in all weather stations that we are following in our region (Albion, Bergen, Conesus Lake (S), Elba, Geneva, Lyndonville, Medina, Sodus and Waterport). A fungicide may be warranted on fields that have a long way to go until harvest or are high value. There are several organic products labeled for CLS in table beets (see the 2022 Cornell Vegetable Guidelines). For conventional fields, the first fungicide application of either Tilt or Miravis Prime should occur when there is 15 to 20% incidence (number of leaves with at least one CLS lesion). Use the following sampling strategy in the field to evaluate the action threshold: 1. Select an area within the field which may be of highest risk (e.g. adjacent to another beet field or field with a history of beets; low-lying area, thick canopy, etc); 2. Evaluate 6 randomly selected leaves along a row at 1 foot intervals and record if the leaf has at least one lesion (you do not have to count the number of lesions); 3. Continue until you have evaluated at least 15 sampling locations for a total of 90 leaves; 4. If at least 18 leaves have at least 1 CLS lesion per leaf, the average action threshold to consider the first fungicide application has been reached. Remember that you can download and use the "Sampling App by Cornell" on iOS devices to collect the data. The app will tell you when to stop sampling and uses a similar procedure as described above. During high risk periods, it is suggested to scout fields twice per week. – JK



Cercospora lesion as viewed through a 10X hand lens. Note the diagnostic tiny black dots which are the spore producing pseudostromata. Photo: J. Kikkert, Cornell.

CARROTS

From Thomas Bjorkman, Cornell Cover Crops@CropsCover: This is a good time to plant an oat cover crop for reducing populations of Northern Root Knot Nematodes. It is a non-host in the fall, and dead in the spring. A good kill of preceding plants and a brief fallow before oats enhances the effect. https://cabidigitallibrary.org/doi/epdf/10.1079/9781789247541.0038. - JK

DRY BEANS

As fields start to mature, be sure to monitor for insect pests, especially those that feed on pods. -ML

Western Bean Cutworm Report

Western bean cutworm is being monitored at 12 dry bean locations in the region (Alexander, Avoca Hill, Avoca Valley, Caledonia, Churchville, Pavilion, Penfield, Penn Yan 1, Penn Yan 2, LeRoy, Wayland, and Wyoming). All locations are past peak flight as catch numbers continue to decrease, with overall moth numbers lower this year across the region. Scouting should continue this week in dry beans for damage to pods.

To scout for WBC, inspect 50 plants per field (10 stops, 5 plants per stop), looking at all pods present on the plant for

holes. WBC chew directly into the pod and eat the seed. It can be difficult to scout dry beans for egg masses or caterpillars, since the caterpillars move from the pods to the soil during the daytime, so looking for signs of damage is the best strategy. European corn borer damage (ECB) may be similar to WBC, but an ECB larva would likely still be present in the pod when inspected. If damage into the pod and seed is found with no larva present, it is possible this is WBC. A spray is recommended if dry bean pod damage is found. In addition, to the WBC traps listed in the sweet corn report, the following dry bean trap sites are being monitored this year (project funded by the NYS Dry Bean Endowment and led by Margie Lund, CVP):

Dry Bean Location	Trap Set	<u>7/19/22</u>	<u>7/26/22</u>	<u>8/2/22</u>	<u>8/9/22</u>	<u>8/16/22</u>	<u>8/23/22</u>	Cumulative WBC
Alexander (Genesee Co.)	6/27/22	11	18	23	9	10	1	73
Avoca Hill (Steuben Co.)	6/27/22	10	31	53	23	6	0	124
Avoca Valley (Steuben Co.)	6/27/22	4	19	28	23	12	1	89
Caledonia (Livingston Co.)	6/27/22	8	25	36	36	14	22	145
Churchville (Monroe Co.)	6/27/22	30	36	31	24	11	5	140
LeRoy (Genesee Co.)	6/27/22	67	92	95	64	16	2	338
Pavilion (Genesee Co.)	6/27/22	5	4	3	5	3	1	22
Penfield (Monroe Co.)	6/27/22	26	94	120	85	32	34	396
Penn Yan 1 (Yates Co.)	6/27/22	6	19	29	20	9	9	95
Penn Yan 2 (Yates Co.)	6/27/22	12	7	31	11	13	16	90
Wayland (Steuben Co.)	6/27/22	4	34	90	47	16	1	194
Wyoming (Wyoming Co.)	6/27/22	24	13	13	1	1	2	57

Western bean cutworm (WBC) trap set date and WBC adult numbers by date for each dry bean trap location.

LETTUCE AND GREENS

Be on the lookout for aphids along leaf mid-ribs. After the dry weather, aphids have moved back into lettuce plantings looking for moisture. Using sprays will kill the insects but then the lettuce will have dead aphids. To a customer, living or dead, they will see bugs. If aphids are a continual problem, look to biocontrol using purchased beneficial predatory insects and get them established in your plantings. In the meantime, after harvest lettuce heads could be dunked in water tank (following food safety protocols) and try to dislodge aphids. A bubbler/aerator added to the dunk tank would agitate the water to remove many insects and debris. Another option is to use a spray hose with nozzle to rinse the lettuce by directing nozzle into the heads to dislodge aphids. When harvesting in the field, lettuce heads could be stood up in shallow harvest bins to make nozzle spraying more effective and efficient. - RH

ONIONS

Onions are lodging everywhere and we are in the home stretch for finishing up pesticide spray programs, if not already completed. Disease pressure remains very low in Elba, while Stemphylium leaf blight (SLB) is becoming primary and Botrytis leaf blight (BLB) spots are increasing in Wayne and Oswego counties. Fortunately, it does not appear that the late onset of these diseases will result in excessive leaf dieback on reduced yields. Onion thrips are being kept under control with Radiant and Exirel. Growers who have plantings with thin stands may experience plants in these stands that "do not know its over" that have reverted back to vegetative growth (are putting on new leaves). These plants will not lodge. In this scenario, it may be best to gently roll these sections of the field, which will knock over and pull out of the ground the plants that "don't know that it is over" so that they may begin the long dry down process, while laying over and leaving the roots in tact of the plants that are lodging properly. My preference is to pull onions when the roots are "letting go" while there is still some green foliage – see article on page 8. CH

Typically, the week after 50% lodging is the timing when sprout inhibitor for storage-bound onions is applied. The rule of thumb is that onions should die down naturally and not from disease of insect damage. If the field is clean,

then sprout inhibitor is likely all you need, although most growers opt to include mancozeb or a FRAC P07 fungicide for DM protection in their last spray. If necrotic leaf tips and outer leaves have 20% or more leaf dieback, which is infected with SLB, than a final SLB fungicide may be included in the spray with sprout inhibitor. If leaf dieback exceeds 30%, the plant has reached "the point of no return" and even the best fungicides will not make a difference. Similarly, if thrips are greater than 1.0 per leaf, a final insecticide may be included with sprout inhibitor. As long as the roots and foliage are healthy after lodging, bulbs will continue to put on size until the leaves are dry. If the leaves dry up quickly from thrips, disease or poor roots, the bulbs may not reach their full size potential – see article on page 8. See below for tips on using sprout inhibitor, maleic hydrazide. CH

Ideal conditions for applying sprout inhibitor to storage bound onions

Maleic hydrazide (MH) is a growth regulator applied to storage bound onions to prevent sprouting. Ideal conditions include:

- 50% tops down, plants have 5-8 green leaves to ensure adequate translocation into the bulb.
 - If MH is applied too late or when onions have been ravaged by disease or thrips when the onion has less than 3 green leaves, it will not be absorbed properly and the onions will start sprouting in storage.
 - If MH is applied to onion that is still producing new leaves, cell division will be stopped but individual cells will continue to grow in size. This will produce spongy bulbs where the scales pull away from each other.
- Humid weather and temperatures less than 75 °F are ideal.
 - Low humidity and high temperatures (i.e. >80-85 °F) may cause MH to crystallize on the leaves, thereby inhibiting uptake.
- No rain within 24 hours after application, as this reduces uptake.
- Do not tank mix with sodium hypochlorite (= tradename Surchlor), a sanitizer treatment for bacterial diseases, as this tank mix can cause a severe chemical reaction. -CH

POTATOES

Continue to be consistent with fungicide applications in potatoes, storm systems that have been moving through the area this past week bring potential for spreading early blight and for late blight development. -ML

Simcast forecasting indicates that most stations have reached the 30 blight units (BU) needed to trigger a spray for late blight this week including Arkport, Buffalo, Ceres, Dansville, Fairville, Farmington, Fulton, Hammondsport, Lyndonville, Medina, Niagara Falls, Penn Yan, Rochester, Sodus, Versailles, and Wellsville, while most other locations will surpass 30 BUs by the end of the week. If the weather station closest to you has not yet reached 30 BU and the forecast indicates that it will in the next 2-3 days, a spray is still recommended. Because weather conditions can vary depending on topography and altitude, the recent disease information and disease forecasts will be most accurate very close to the weather station used. For locations that are not close to a weather station, forecast information should only be used as a **general indication** of how favorable weather has been for late blight. Late blight has been reported in North Carolina, Tennessee, and California this past week, all in tomato. Past reports include late blight in Ontario, Canada in tomato, and two outbreaks in FL in potato earlier this season according to usablight.org. -ML

Location	Blight Units ¹ 8/17-8/23	Blight Units ² 8/24-8/26	Location	Blight Units ¹ 8/17- 8/23	Blight Units ² 8/24- 8/26
Albion	20	31	Geneva	24	24
Arkport	34	51	Hammondsport	38	48
Baldwinsville	0	12	Knowlesville	25	42
Bergen	19	34	Lyndonville	38	54
Brant	20	36	Medina	38	55
Buffalo	31	51	Niagara Falls	35	54
Burt	-	-	Penn Yan	47	66
Ceres	48	64	Rochester	44	65

Late Blight Risk Chart 8/24/22

PAGE 6 | VegEdge

Dansville	47	67	Sodus	30	30
Elba (Muck)	25	43	Versailles	39	57
Fairville	30	41	Wellsville	40	60
Farmington	44	61	Williamson	14	14
Fulton	49	70			

Calculated using a May 26 crop emergence date, last fungicide application August 17, cultivar Reba

Numbers in red indicate locations that have or will surpass the 30 blight units needed to trigger a fungicide application

1 Past week Simcast Blight Units (BU)

2 Three-day predicted Simcast Blight Units (BU)

SNAP BEANS

While there is quite a variation on how much rain was received across our region, the weather has shifted to a wetter, more humid, and cooler pattern. We have had morning dew or fogin some areas as well. All of this means that the risk for bacterial leaf blights and fungal diseases has increased. The only diseases we typically spray for are white mold and gray mold. Fields with a history of Sclerotinia white mold and with dense canopies are most at risk for developing white mold. Rainy weather is highly favorable! Flowers become infected and disease spreads to the rest of the plant. A first fungicide should be applied to fields at risk when there is an average of 1 open flower/plant in 10% of the plants; a second application may be considered at 100% bloom (this may happen within a day or two in some varieties in warm weather). Research in the Pethybridge group at Cornell focused on the products Endura, Topsin 4.5 FL, and Omega 500F. Each of these products is highly efficacious when applied at optimal timing and there was no significant difference in the disease control between the products. In further teasing out the optimal application timings, our research has shown that the optimal timing of Topsin 4.5 FL is at 10% bloom, and that this product is not effective when applied at 100% bloom. Furthermore, there is no benefit to a second application. Conversely, disease control with Omega 500F was not related to timing (10% or 100% bloom) and there was no benefit from a second application even when applied at 100% bloom. For growers who were not able to put on a spray at 10%, then Omega 500F would be the choice product to use. The timing of the other possible fungicides was not tested. For organic growers, the most efficacious and reliable product from year to year is Double Nickel (Bacillus amyloliquefaciens strain D747). Both the LC and 55 formulations are equally effective. While labeled at the rate of 1 to 2 quart/acre, there was no benefit of the higher rate, and thus 1 quart/acre is recommended.

Hail damaged fields in some locations this past week, causing shredded leaves and marked pods. Any damage to plants in the pod stage is a loss at this point. Make sure to document and contact Crop Insurance representatives quickly. - JK



Leaves shredded from hail. Photo: J. Kikkert, Cornell.

Hail damaged pods. Photo: J. Kikkert, Cornell

2021 On-Farm Research Results: Effect of Green Foliage at Time of Pulling on Onion Yield

Christy Hoepting, CCE Cornell Vegetable Program

Onions lodge with varying degrees of green foliage from being green all the way to the tips (e.g. 95% green foliage) to much less. When biotic and/or abiotic stress is severe enough to result in excessive leaf dieback to the extent that the foliage does not have enough weight to lodge, then the plants can die "standing up". After lodging, the goodness from the green foliage is pulled into the bulbs as they make size. Thus, healthy foliage equals big bulbs. At first when you pull on lodged onions, the roots are still "hanging on". Eventually, the roots whither and when you pull on them, the roots "let go". The questions is whether the roots need to be in tact for the bulbs to continue to put on size.

In 2021, we conducted three on-farm trials to test various theories about when to pull onions.

Trial No. 1 (Fig. 1): In our fungicide trial in Oswego, we compared early pulling (roots holding on, green foliage, pulled on Aug 31) to late pulling (roots letting go, foliage completely dry, pulled 17 days later on Sep 17) in three of our fungicide treatments that had varying degrees of green foliage (85%, 57% and 34%) at the early pulling date. Sample size was 12 ft of row, replicated 4 times, c.v Bradley.

Trial No. 2: Behind our fungicide trial in Oswego, we compared early pulling (roots holding on, 70% green foliage, pulled on Aug 31) to late pulling (roots letting go, foliage completely dry, pulled 17 days later on Sep 17). Sample size was 26 ft of row, replicated 6 times, c.v. Bradley.

• In both trial 1 and 2, the early pulling occurred 18 days after the last fungicide application, which was made at 50-60% lodging.

Trial No. 3. In a section of field in Elba where the onions were dying standing up, early pulling (roots hanging on, 55% green foliage, pulled on Aug 28) was compared to late pulling (roots letting go, 0% green foliage, pulled 27 days later on Sep 24). Sample size was 60 ft of row, replicated 6 times, c.v. Hamilton.

Results highlights (Table 1):

- In 2 out of 3 trials, pulling late when roots had let go and foliage was completely dry (late pulling) resulted in 3.7 to 7.4% increase in marketable yield compared to pulling early.
 - In Trial No. 1 when the data was pooled across the three green foliage treatments, pulling late when roots had let go and foliage was completely dry resulted in a significant 5% increase in yield, which in this trial was equivalent to an extra 38 cwt/A.
 - Although not evaluated in this trial, skin retention is often better when onions are pulled when they still have some green leaves.
- In the third trial (Trial No. 2), there was absolutely no difference between pulling early with roots holding on and 70% green foliage and pulling late with roots letting go and completely dry foliage.
 - In this study the late pulling resulted in significantly almost twice as much bulb rot than the early pulling, although incidence of bulb rot was very low (early 0.9%; late 1.7%).
- 37% green foliage resulted in numerically 8-12% lower yield (61-94 cwt/A) then 57% and 85% green foliage at time of early pulling when pulled early and late. These results indicate that foliage health 2 weeks after 50-60% lodging may be an important determinant of yield. Ideally, you want to still have 50% green foliage at this time. Poor disease and thrips control, or other plant stresses that could cause onions to dry down quicker than this may result in lower yields.

Final comments

Our results suggest that pulling late once roots have let go and foliage is completely dry may result in higher yields. At the end of the day, the onion crop needs to be harvested and cured before winter comes. Time may run out waiting for leaves to dry and roots to let go before pulling. In a worst-case scenario, if soil conditions are moist, nonpulled plants may re-root and then start growing again. If time runs out and onions are topped when they still have green leaves, green neck tissue may be an "open door" for bacterial bulb rot and Botrytis neck rot pathogens to enter. Alternatively, skin retention may decline when onions are too dried out. I like the idea of pulling when the roots are letting go, but when the foliage still has some green in it, in enough time for the foliage to dry

completely before topping.

Table 1. Effect of green foliage in lodged onions at time of pulling on yield, 2021 field trials (Hoepting et. al.)

Oswego 2021

	Marketable Yie			
Green Foliage on Aug 26 (onions lodged)	Pulled Aug 31 when <u>roots holding on</u> Topped Sep 17	Pulled & Topped Sep 17 when 0% green foliage, roots letting go	Change in yield (Aug 31 – Sep 17) 17 d	
Trial No. 1:				
85%	718	745	+ 27 cwt (3.7%)	
57%	724	778	+ 54 cwt (7.4%)	
34%	650	684	+ 34 cwt (5.2%)	
p value (α = 0.05)¹	0.5343	0.3532		
	Average Pulled Green:	Average Pulled Dry:	p = 0.0441	
	698 a	736 b	+ 38 cwt (5%)	
Trial No. 2: 70%	695	694	No difference ρ = 0.9910	
Elba 2021				
Green Foliage On Aug 28 (onions dying standing up)	Pulled Aug 28 When roots holding on Topped Sep 24	Pulled & Topped Sep 24 When 0% green foliage, roots letting go	Change in yield (Aug 28 – Sep 24) 27 d	
Trial No. 3: 55%	475	501	+ 26 cwt (5.4%) p = 0.1000	

¹Treatments were separated using Fisher's Protected Least Significant Difference Test with 5% level of confidence. Results are significant when p < 0.05.

Green Foliage at Time of Pulling, Oswego 2021 Study



85% (Aug 26)

57% (Aug 26)

34% (Aug 26)

Upcoming Events

Chipping Potato Twilight Meeting

August 25, 2022 (Thursday) | 5:00 pm - 6:30 pm, dinner to follow Mahany Farms, 10046 NY-36, Dansville, NY 14437 (Steuben Co.)

View the chipping potato variety trial and hear updates from Walter De Jong of Cornell! Brian Nault, Cornell, and Margie Lund, CCE, will talk about insecticidal rotations for Colorado potato beetle and other potato insect updates. 1.0 DEC (categories 1a, 10, 23) recertification credits are available.

Farm Bill Listening Tour - Finger Lakes

August 26, 2022 (Friday) | 12:30 pm Cornell AgriTech, Jordan Hall, 2nd Floor Auditorium 630 West North St., Geneva, NY 14456 Parking available behind Jordan Hall

The Farm Bill Listening Tour provides an opportunity to engage with and hear from constituents about the importance of the 2023 Farm Bill to New York State. What we learn during the tour will be provided to Governor Hochul to help develop the State's Farm Bill priorities for critical funding and policy changes in the areas of agriculture, nutrition, and the environment.

Please RSVP for the Finger Lakes listening session by emailing <u>FarmBill@agriculture.ny.gov</u>. In your RSVP, please indicate your name, affiliation, which listening session location you are RSVP'ing to (i.e. Finger Lakes), and whether you intend to provide comment at the session.

If you are unable to attend the Finger Lakes listening session in person, you may visit <u>facebook.com/nyagandmarkets</u> to view a livestream of the event.

For more information on this session or any upcoming stops, please contact the Department at (518) 457-2771. We also encourage written comments, which can be submitted to <u>FarmBill@agriculture.ny.gov</u>. The deadline to submit written comments is December 19, 2022.

Bejo Seeds Open House in Geneva, NY

August 30 (Tuesday) | 10:00 AM to 6:00 PM Bejo Seeds Inc. Research and Demonstration Fields 4188 Pre-Emption Rd., Geneva, NY 14456

Join us for "Salad Days" at our Geneva facility on August 30 where we will highlight our favorite nutrient packed salad greens in support of our partners at the National Garden Bureau! Guests will also learn about new and existing varieties from our crop assortment and enjoy the Bejo experience – good food and even better conversation as they tour our demonstration trials, kitchen garden, and raised beds.

The event is free of charge and registration is <u>not</u> required.

Ag CDL Training for Erie Co. Farmers and Farm Employees

CCE Erie is offering an agricultural CDL (commercial driver license) for Class A & Class B licenses, open to farmers and farm employees from Erie County. After September 1st, any remaining seats may be filled by farmers & farm employees from other counties. Class size is limited.

Tuition for the CDL training has been negotiated at a lower agricultural rate. Grants may be available to further reduce costs for farms paying the training costs on behalf of their employees.

This training is for drivers who have some experience operating commercial trucks. The class will be held in the Expo Hall Classroom at the Erie County Fairgrounds in Hamburg, October 18-21, 2022. Driver training will occur at the Hamburg fairgrounds on October 24-29, 2022. An informational meeting will be held on Tuesday, October 4th from 7:00 - 9:00 PM.

Visit <u>https://erie.cce.cornell.edu/events/2022/10/18/ag-cdl-training-erie</u> for license eligibility and other details. To register or ask questions, call CCE Erie at 716-652-5400.

Clean Sweep NY (Pre-registration is required)

September 27th: Falconer (Chautauqua County)

September 28th: Hornell (Steuben County)

NYSDEC's CleanSweep NY pesticide collection is coming to our area in September. This is your opportunity to dispose of obsolete, unwanted, or unusable pesticides, fertilizers, paints and other chemicals free of charge. Participants from neighboring counties are welcome and encouraged to attend.

Preregistration required. Please call 518-225-8146 or email <u>cleansweep@dec.ny.gov</u> to request a registration form.

Sweet Corn Trap Report Commentary 8/23/2022

Marion Zuefle, NYS IPM Program; from <u>http://sweetcorn.</u> nysipm.cornell.edu

WNY Pheromone Trap Catches: August 23, 2022							
Location	ECB -E	ECB -Z	ECB Hybrid	CEW	FAW	WBC	DD to Date
Batavia (Genesee)	1	0	NA	2	0	2	2050
Bellona (Yates)	0	0	0	2	9	6	2082
Collins (Erie)	NA	NA	NA	NA	NA	NA	1982
Eden (Erie)	NA	NA	NA	NA	NA	NA	2027
Farmington (Ontario)	2	0	NA	0	0	3	2130
Geneva (Ontario)	0	9	0	24	3	1	1993
Hamlin (Monroe)	0	1	NA	19	0	3	2026
Leroy (Genesee)	1	4	NA	21	0	37	2042
Lyndonville (Orleans)	1	1	NA	1	0	22	2013
Oswego (Oswego)	0	0	NA	0	0	6	1925
Panama (Chautauqua)	0	0	NA	3	0	0	1751
Penn Yan (Yates)	0	8	0	11	0	6	2029
Portville (Cattaraugus)	2	3	NA	2	12	0	1787
Ransomville (Niagara)	NA	NA	NA	NA	NA	NA	2135
Seneca Castle (Ontario)	0	1	0	0	0	0	2026
Williamson (Wayne)	0	0	NA	19	0	7	1865

Statewide, twenty-seven sites reported this week. European corn borer (ECB)- E was caught at seven sites and ECB-Z was caught at eight sites. The hybrid ECB was caught at only one of the seven sites trapping for it: Hurley (1). Twenty-one sites reported corn earworm (CEW) catches this week with nineteen sites high enough to be on a 4, 5, or 6-day spray schedule. Fall armyworm (FAW) was caught at eight sites and Western bean cutworm (WBC) was caught at eighteen sites.

It is important to correctly identify the larval pests in your corn so that management practices can be altered when needed. To help with identification please also see the <u>Sweet Corn Larval Pest</u>. <u>Identification</u> fact sheet

(https://ecommons.cornell.edu/handle/1813/57328).



Cornell Cooperative Extension Cornell Vegetable Program

480 North Main Street Canandaigua, NY 14424



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VegEdge is the highly regarded newsletter produced by the Cornell Vegetable Program. It provides readers with information on upcoming meetings, pesticide updates, pest management strategies, cultural practices, marketing ideas and research results from Cornell University and Cornell Cooperative Extension. VegEdge is produced every few weeks, with frequency increasing leading up to and during the growing season.

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Julie Kikkert, Team Leader | 585-313-8160 cell | jrk2@cornell.edu processing crops (table beets, carrots, peas, snap beans, sweet corn)

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Cornell Cooperative Extension Cornell Vegetable Program

For more information about our program, email cce-cvp@cornell.edu or visit CVP.CCE.CORNELL.EDU

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