

NORTHEAST OHIO AGRI-CULTURE NEWSLETTER

Your Weekly Agriculture Update for
Ashtabula, Portage and Trumbull Counties

July 21, 2020



Industrial hemp for fiber research plot in Trumbull county.

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Hello Northeast Ohio Counties!

Although there are still some dry spots around the region, we've been blessed with some timely rains. Other parts of the state have not been as fortunate. The recent rains have really helped out the crops and corn is tasseling in some fields, and beans are starting to flower with a good canopy.

The rain has also helped our hemp for fiber plot in Trumbull. We have two varieties planted at different rates to determine weed suppression with canopy closure. We are also monitoring disease pressure.

Have a great week everyone!

Lee Beers
Trumbull County
Extension Educator

Andrew Holden
Ashtabula County
Extension Educator

Angie Arnold
Portage County
Extension Educator

Heat Alert – Farm Workers at Increased Risk this Summer

By: Dee Jepsen

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-23/heat-alert—farm-workers-increased-risk-summer>

Outdoor work during these hot summer months adds additional stress to our body's coolant system. Heat stroke, heat stress, or heat exhaustion – to distinguish between these terms does not matter – any form of heat stress can impair function. Working in extreme heat lowers the body's reaction time and can put workers at risk. When our body's internal temperature cannot cool itself fast enough, our body will react.



Heat is a leading weather-related killer in the U.S. Death from excessive heat can be explicit – meaning it is the underlying factor that caused the person to die. Or heat can be a contributing factor to the worker's death – meaning the heat placed them at risk for other workplace hazards. In this second example, heat could cause eyeglasses to fog up, create sweaty palms that loose grip, or invoke dizziness or irrational behaviors. Persons with cardiovascular or respiratory illnesses can also be vulnerable to heat; making heart attacks, strokes and other circulatory system attacks more common during the summer months.

Besides the sun and heat, wearing additional Personal Protective Equipment (PPE) can burden our body's regulatory capacity and place workers at increased risk for heat illnesses. Human skin is an important body organ. Its function is to regulate the heat and protect our other cells from damaging heat or trauma. Certain PPE (i.e. gloves, boots, rubber aprons) can interfere with our skin's sweat response system by holding excess heat and moisture inside. This makes our body even hotter. Wearing extra PPE can increase the physical effort for our muscles to carry additional weight while we work, thereby increasing our body's heat production. Respirators and face masks can increase the physical labor on our respiratory system.

For all outdoor workers, there are steps to take to reduce heat exposure. When workers need the benefit of PPE protection, there are additional steps they can take. The main goal in any heat-related situation is to lower the core body temperature.

Drink fluids before you are thirsty

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Encourage workers to drink small amounts of water more frequently throughout the work shift.

During strenuous work, persons should have 1 cup (8oz) of water every 15 – 20 minutes

Schedule more frequent rest breaks in hot weather

Taking breaks allows the body to reduce the core temperature.

Sitting in the shade or air-conditioning will help get the core body temperature lower in a faster period of time.

During breaks, drink water and allow the body to rest.

Remove PPE during breaks, use cold packs or wet towels to continue cooling and reducing the body temperature.

Acclimate to the work environment

Condition your body to outdoor work by gradually working outside for short periods of time. It may take 1 – 2 weeks to be at full capacity

New workers are at increased risk of heat exhaustion if they have not acclimated their bodies to sweating or stabilizing their breathing.

Check on workers throughout the day

Make sure workers have access to water and shade during extreme heat conditions.

Senior workers may need extra rest times and could experience additional cardiovascular disease deaths.

Check for signs of heat exhaustion: dizziness, excessive sweating, cold clammy skin

Wear the right clothes for the job

Lighter colored clothing will not absorb as much heat. However lighter colors may not have UV protection from the sun's rays.

Choose apparel that is loose fitting and breathable.

Wide brimmed hats (with a 3-4" brim all the way around) will protect the top of the ears and back of the neck from UV rays. Ball caps are not the best work hats in direct sunlight.

Try wearable personal cooling systems to keep the core body temperature low throughout the work shift. Ice vests, cooling bandanas, or other water-cooled garments are available, and often can be worn in conjunction with PPE.

As the summer heat continues on, outdoor workers should take extra precaution for heat-related stress. Workers of all ages and experience levels can succumb to these dangerously high temperatures. Prevention is the best course of action.

Additional resources:

Heat Stress Tips from CDC:

<https://www.cdc.gov/niosh/topics/heatstress/>

Heat Stress for Trainers and Supervisors of Pesticide Applicators:

<https://ohioline.osu.edu/factsheet/aex-892222>

Heat Stress Infographic from NIOSH:

<https://www.cdc.gov/niosh/topics/heatstress/infographic.html>

Late Summer Establishment of Perennial Forages

By Mark Sulc

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-23/late-summer-establishment-perennial-forages>

The month of August provides the second window of opportunity for establishing perennial forage stands this year. The primary risk with late summer forage seedings is having sufficient moisture for seed germination and plant establishment, which is a significant risk this summer given the low soil moisture status across many areas.

The decision to plant or not will have to be made for each individual field, considering soil moisture and the rain forecast. Rainfall/soil moisture in the few weeks immediately after seeding is the primary factor affecting successful establishment.



Preparing a firm seedbed for forages

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No-till seeding in August is an excellent choice to conserve soil moisture for good germination. Make sure that the field surface is relatively level and smooth if you plan to no-till seed because you will have to live with any field roughness for several years of harvesting operations.

Sclerotinia crown and stem rot is a concern with no-till seedings of alfalfa in late summer and especially where clover has been present in the past. This pathogen causes white mold on alfalfa seedlings and infects plants during cooler rainy spells in late October and November. Early August plantings dramatically improve the alfalfa's ability to resist the infection. Late August seedings are very susceptible to this disease, with mid-August plantings being intermediate.

In a no-till situation, minimize competition from existing weeds by applying a glyphosate burndown before planting. Using no-till when herbicide-resistant weeds are present, such as marehail, creates a very difficult situation with no effective control options, so tillage is probably a better choice in those situations.

Post-emergence herbicide options exist for alfalfa to control late summer and fall emerging winter annual broadleaf weeds. A mid- to late fall application of Butyrac (2,4-DB), bromoxynil, Pursuit or Raptor are the primary herbicide options for winter annual broadleaf weeds. ***Fall application is much more effective than a spring application for control of these weeds especially if wild radish/wild turnip are in the weed mix.*** Pursuit and Raptor can control winter annual grasses in the fall in pure legume stands but not in a mixed alfalfa/grass planting. Consult the 2020 Ohio, Indiana, Illinois Weed Control Guide and always read the specific product label for guidelines on timing and rates before applying any product.

For conventional tillage seeding prepare a firm seedbed to ensure good seed-to-soil contact. Be aware that too much tillage depletes soil moisture and increases the risk of soil crusting. Follow the "footprint guide" that soil should be firm enough for a footprint to sink no deeper than one-half inch. Tilled seedbeds do not need a pre-plant herbicide.

Finally, keep in mind the following factors to increase establishment success.

- **Soil fertility and pH:** The recommended soil pH for alfalfa is 6.5 to 6.8. Forage grasses and clovers should have a pH of 6.0 or above. The minimum or critical soil phosphorus level for forage legumes is 30 ppm Mehlich-3 and for grasses 20 ppm Mehlich-3. The critical soil potassium level is 120 ppm for most of our soils.
- **Check herbicide history of field.** A summary table of herbicide rotation intervals for alfalfa and clovers is available at <http://go.osu.edu/herbrotationintervals>. Forage grasses are not included in that table, so check the labels of any herbicides applied to the field in the last 2 years for any restrictions that might exist.

- **Seed selection:** Be sure to use high quality seed of adapted varieties and use fresh inoculum of the proper Rhizobium bacteria for legume seeds. “Common” seed (variety not stated) is usually lower yielding and not as persistent, and from our trials the savings in seed cost is lost within the first year or two through lower forage yields.
- **Planting date:** Planting of alfalfa and other legumes should be completed between late July and mid-August in Northern Ohio and between early and late August in Southern Ohio. Most cool-season perennial grasses can be planted a little later. Check the Ohio Agronomy Guide for specific guidelines (see <http://go.osu.edu/forage-seeding-dates>).
- **Planter calibration:** If coated seed is used, be aware that coatings can account for up to one-third of the weight of the seed. This affects the number of seeds planted in planters set to plant seed on a weight basis. Seed coatings can also dramatically alter how the seed flows through the drill, so calibrate the drill or planter with the seed to be planted.
- **Seed placement:** The recommended seeding depth for forages is one-quarter to one-half inch deep. It is better to err on the side of planting shallow rather than too deep.

Do not harvest a new perennial forage stand this fall. The ONLY exception to this rule is perennial and Italian ryegrass plantings. Mow or harvest those grasses to a two and a half to three-inch stubble in late November to improve winter survival. Do not cut any other species in the fall, especially legumes.

Western Bean Cutworm Numbers Continue to Increase

By Amy Raudenbush

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-23/western-bean-cutworm-numbers-continue-increase>

Western bean cutworm (WBC) trap counts for the week of July 13 – 19 continue to increase in many Ohio counties. A total of 27 counties monitored 91 traps resulting in 467 WBC adults (5.1 average moths per trap) (Figure 1). Counties that are averaging more than 7 moths per week should begin monitoring for egg masses (Figure 2). These counties include Fulton, Huron, Lucas, and Sandusky. While numbers of WBC moths increased from the previous week, the general trend of WBC for 2020 is currently low compared to previous years (Figure 3).



Scouting guidelines

Scout pre-tassel corn approaching tassel fields. Choose at least 20 consecutive plants in 5 random locations (scout different areas of the field that may be in different growth stages). Inspect the uppermost 3–4 leaves. Consider treatment if >8% of inspected plants have eggs or larvae (field corn) or in sweet corn, if >4% of inspected plants have eggs or larvae (processing market), or >1% of plants (fresh-market).

Treatment

If the number of egg masses/larvae observed exceed threshold, many insecticides are available to adequately control WBC, especially those containing a pyrethroid. However, as with any ear-burrowing caterpillar pest, timing is critical. Insecticide applications must occur after egg hatch, or after tassel emergence, but before caterpillars enter the ear. If eggs have hatched, applications should be made after 95% of the field has tassel. If eggs have not hatched, monitor for the color change. Hatch will occur within 24–48 hours once eggs turn purple. To search for larval injury after it has occurred, search the corn for ears having feeding holes on the outside of the husks.

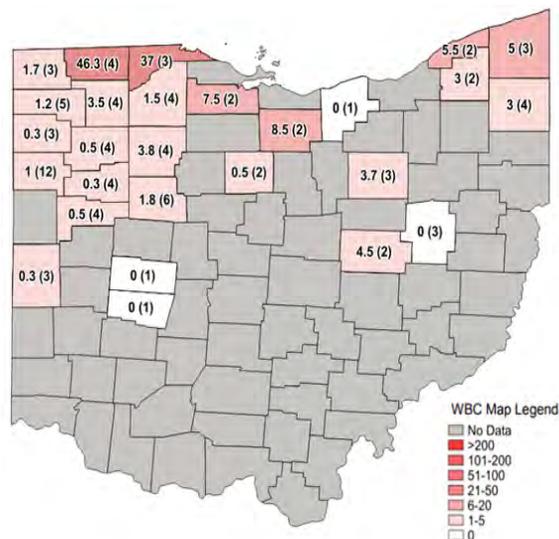


Figure 1. Average Western bean cutworm adult per trap followed by total number of traps in the county in parentheses for week ending July 19, 2020.



Figure 2. Western bean cutworm egg mass.

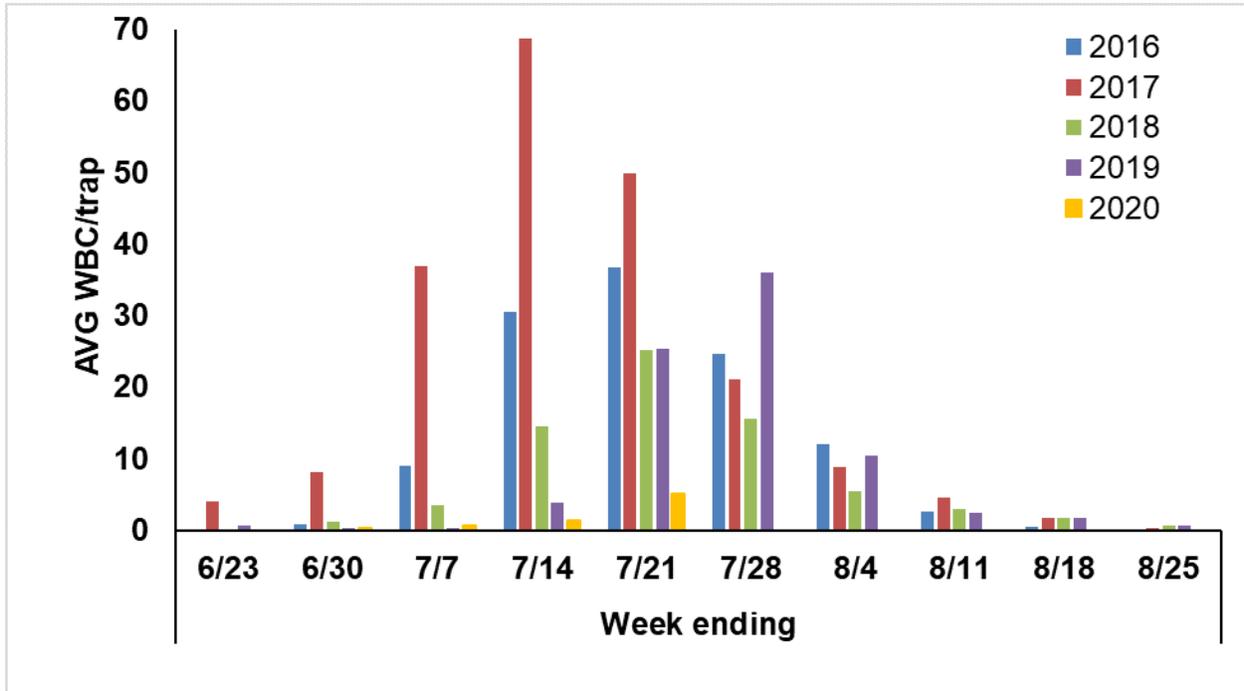


Figure 3. Average number of Western bean cutworm (WBC) moths captured weekly in Ohio from 2016 to 2020.

REVITON IS THE NAME OF NEW GROUP 14 HERBICIDE BEING DEVELOPED BY HELM AGRO US

By: Successful Farming Staff
 Source: <https://www.agriculture.com/crops/pesticides/reviton-is-the-name-of-new-group-14-herbicide-being-developed-by-helm-agro-us>

Helm Agro US Inc. has announced that Reviton will be the name of its new Group 14 (PPO inhibitor) herbicide that’s currently under regulatory review by the Environmental Protection Agency.

Helm Agro US officials say the herbicide has a novel active ingredient called Tergeo. A nonselective herbicide for the preplant burndown and desiccation segments, Reviton will be one of the first new PPO herbicides to be introduced in the U.S. in more than a decade, say company officials.

NEW MOLECULE DISCOVERY

The new molecule was discovered by Farm Hannong, a Korean agrochemical company, and has been globally commercialized as a joint development with Ishihara

Sangyo Kaisha, Ltd, a Japanese agrochemical company.

Earlier this year, Helm Agro US and Ishihara Sangyo Kaisha entered into a long-term collaboration for the commercial development of Reviton herbicide, which contains the novel molecule, exclusively for the U.S. crop protection market.

The U.S. launch of Reviton is anticipated later this year following federal and state registrations for use in field corn, cotton, soybeans, and wheat, say company officials. According to Helm, additional crop registrations are to be expected.

In more than 700 North American product development trials and regulatory studies, Reviton has demonstrated high-performance ratings in burndown control for more than 50 broadleaf and grass weeds, including ALS, triazine, and glyphosate-resistant species, say company officials.

Helm officials describe Reviton's active ingredient as being fast-acting with effects occurring within 24 hours after application.

Additional characteristics of the breakthrough herbicide include an ultra-low use rate, tank mix compatibility, crop rotational flexibility and expanded use as a desiccant for cotton, say Helm officials.

The Group 14 herbicide will be formulated as a suspension concentrate following EPA clearance for commercial activities, say company officials.

Dave Schumacher, president of Helm Agro US, says Reviton is a next-generation chemistry designed to solve growers' toughest weed control challenges across a wide range of crops and geographies.

"At a time when few new herbicides are being brought to market, Reviton is truly breakthrough technology," he said in a company news release. "The performance of Reviton in field trials has been impressive. Growers and retailers will be excited once they see the product in action."

Worms in mid-summer sweet corn

By Celeste Welty

Source: <https://u.osu.edu/vegnetnews/2020/07/18/worms-in-mid-summer-sweet-corn/>

Mid-July should be one of the easiest times to keep sweet corn ears free from caterpillar pests because none of the three key pest species are now abundant in Ohio, and many acres of grain corn are now silking and offering a good habitat to the few corn pests that are active. Once the large fields of grain corn are past the fresh-silk stage, then any plantings of late sweet corn will become very attractive to corn pests. We have had

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detection of some corn earworm moths but at low to moderate density. At present, we are between generations of European corn borer, but the moths of the new generation are likely to begin emerging in the next week or two.

However, the western bean cutworm is a 4th caterpillar species that is becoming a key pest of sweet corn, particularly in July and August, particularly in northwest Ohio. This is a key pest to look for over the next week. This pest is a caterpillar feeds on kernels of ears in both sweet corn and field corn. Feeding damage is usually at the tip end of the ear, but can be in the middle or butt end of the ear. There are often several western bean cutworm larvae in one ear, which makes it different than the corn earworm, that also feeds on kernels at the tip of the ear, but which typically is found as a single larva per ear. The newer BT sweet corn hybrids in the Attribute II series (from Syngenta) provide genetic control of the western bean cutworm, but BT sweet corn hybrids in the Performance series (from Seminis) and the older Attribute series (from Syngenta) do not control this pest. Pheromone traps detected the first activity of this moth this year during the week of 5 – 11 July in Sandusky, Champaign, and Clark Counties. Once the moths are detected, sweet corn fields should be scouted to monitor eggs and young larvae. Scouting should concentrate on plantings in the emerging-tassel stage. Look at 20 consecutive plants in each of 5 random locations per field. Examine the flag leaf (the leaf below the tassel), where eggs are usually laid. Eggs are laid in masses. Eggs are white when fresh, then they darken to purple when ready to hatch. Hatch will occur within 24-48 hours once eggs turn purple. Our tentative threshold for sweet corn is to consider treatment if eggs or larvae are found on more than 1% of plants for fresh-market or on more than 4% of plants for the processing market. Insecticide applications must occur after egg hatch, or after tassel emergence, but before larvae enter the ear.

Pictures and additional details on western bean cutworm can be found in our OSU fact sheet: <http://ohioline.osu.edu/factsheet/ENT-40> . Trap reports on western bean cutworm from several Ohio locations can be found using this link: <https://docs.google.com/spreadsheets/d/10gh3rHahdxLkKXQapGyEPxWsjHYRmgsezOoFHnwtYeo/edit#gid=441280294>

Corn earworm moths are present at low to moderate density as detected by pheromone traps at six Ohio locations; catch ranged from 0 to 11 moths per trap in the past week. This is slightly down from a few weeks ago when trap catch was 12-15 at some sites. The corn earworm moths will be laying their eggs on silks of sweet corn. Sweet corn can be protected from corn earworm infestation by insecticide sprays during silking. When the number of CEW moths caught in traps is moderate (1 to 13 moths per day, or 7 to 90 moths per week), then sprays should be applied every 4 days if the daily maximum temperatures is below 80 degrees F, or every 3 days if the daily maximum temperatures is above 80 degrees F. More information about trap-based spray schedules is available using this link: <http://u.osu.edu/pestmanagement/crops/swcorn/> . Trap reports on corn earworm from several Ohio locations can be found using this

link: <https://docs.google.com/spreadsheets/d/10gh3rHahdxLKkXQapGyEPxWsjHYRmgsezOoFHnwtYeo/edit#gid=0>

True armyworm moths are still more abundant than usual this year and remain a threat to young late-planted sweet corn. Young plantings should be scouted. Our threshold rule is to treat by spraying insecticide if 35% of plants are infested during seedling or early whorl stages. Trap counts for armyworm moths in Columbus can be found for pheromone traps

: <https://docs.google.com/spreadsheets/d/10gh3rHahdxLKkXQapGyEPxWsjHYRmgsezOoFHnwtYeo/edit#gid=1122468773>, and daily counts for armyworm moths in a blacklight trap are shown here:

<https://docs.google.com/spreadsheets/d/10gh3rHahdxLKkXQapGyEPxWsjHYRmgsezOoFHnwtYeo/edit#gid=1114468121>



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Lee Beers

Trumbull County Extension

520 West Main Street

Cortland, OH 44410

330-638-6783

beers.66@osu.edu

trumbull.osu.edu

Andrew Holden

Ashtabula County Extension

39 Wall Street

Jefferson, OH 44047

440-576-9008

holden.155@osu.edu

ashtabula.osu.edu

Angie Arnold

Portage County Extension

705 Oakwood St., Suite 103

Ravenna, OH 44266

330-296-6432

arnold.1143@osu.edu

portage.osu.edu

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PESTICIDE COLLECTION DAY: ODA CLEAN SWEEP

Tuesday, August 25th, 2020 -
9:00 AM to 3:00 PM

Location: Perry Coal and Feed 4204 Main St, Perry, OH 44081

Cost: Free

Details: Pesticide Collection for all Commercial and Private Agricultural Applicators (Nurseries, Farms, Grape Growers, Christmas Tree Growers)

Not intended for homeowners

Contact information: Thomas deHaas – OSU Lake County Extension, ANR Educator dehaas.2@osu.edu or 440-853-2630



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2020 CENSUS

The census counts everyone in the United States. Census results help determine how more than \$675 billion in Federal funding is distributed to each state to support vital programs across the country EVERY YEAR! These funds shape local health care, housing, education, transportation, employment, and more. Census data is safe, secure, and protected by law.

Help us shape Ashtabula County and participate in the 2020 Census!

Respond by ONE of the following three ways:



RESPOND ONLINE

Visit www.my2020census.gov to fill out the online questionnaire. COVID-19 has affected hours of operation and availability of local libraries. Call 2-1-1 for current location operating information.

Andover Public Library
Ashtabula Center for Active Living
Ashtabula County District Library
Conneaut Public Library
Geneva Public Library

Grand Valley Public Library
Harbor Topky Library
Henderson Memorial Library
Kingsville Public Library
Rock Creek Public Library



RESPOND BY PHONE

You can call the assistance center toll-free at 1-844-330-2020 (English) or 1-844-468-2020 (Spanish).



RESPOND BY MAIL

A paper questionnaire should have been mailed to you. Complete and return this questionnaire to complete your census by mail.