

Auglaize County OSU Extension Weekly Agriculture Newsletter – April 1, 2020

Scouting and Latest Information



Hello!! Good afternoon! I pray you are well.

Thank you to those individuals that participated in the second Auglaize County Ag Talk meeting on Tuesday. As mentioned in a special message on Monday, because of the COVID-19 issue, I can no longer hold face-to-face meetings, so I wanted to start a virtual meeting so we can stay in contact. Therefore every Tuesday from 8:30 to 9:30 AM we will be hosting a virtual meeting via Zoom that can also act as a simple conference call for those of you not able to get online to view live. The meeting will be set up to discuss key, timely information for your operation and to open the floor for questions and sharing of information. If you think we need more than an hour, we can make a change, but let me know of that. Also, if you think we should do this earlier in the day, please let me know and we can change that too. Would a 7:30 am or 8:00 am start time be better for the Auglaize County Ag Talk? You may propose topics for the next meeting at anytime during the week by e-mailing or calling me. **The major topic at this time for next Tuesday will be a USDA Farm Service Agency Update by Anita Green.** Please join us every Tuesday for Auglaize County Ag Talk.

Special Notice. As of yesterday, Alite 27 received federal registration! Alite 27 has the active ingredient isoxaflutole in it which is the same active ingredient in Balance Flexx for corn. Alite 27 is ONLY registered for use in Allen, Auglaize, Darke, Mercer, and Shelby Counties in this part of the state!! Alite 27 can only be applied preplant, preemergence, or postemergence to the GT27 soybean. Alite 27 can only be applied UP TO

flowering (R1), but not during flowering. Do not use crop oil concentrate (COC) or methylated seed oil (MSO) with Alite 27 applied postemergence. Use rate is between 1.5 to 3.0 fluid ounces per acre, but the use rates are 2.0 to 3.0 fluid ounces per acre for most of the soils in our county. Winter wheat likely can't be planted after a postemergence application of Alite 27 because there is a 4-month rotation restriction to wheat.

A month ago I introduced Brigitte Moneymaker to you as a new Extension employee in our office. Her title is Water Quality Extension Associate and serves Allen, Auglaize, and Mercer Counties. Her role is to serve you through research and education as it relates to water quality. She is looking for people that would be interested in conducting research projects with her. If you are interested please contact her at moneymaker.4@osu.edu or 434-962-3525.

If you are a buyer or seller of hay, let me know and I can keep a list to share with others. Call the OSU Extension office at 419-739-6580 or e-mail me at stachler.1@osu.edu.

Joke: What day do potatoes hate the most??

Rain fell four days this past week. Rainfall on Thursday, March 26th ranged from 0.27" near Santa Fe-New Knoxville and Kettlersville roads, near Santa Fe-New Knoxville and Shelby-Fryburg roads, and near Valley and Idle roads to 0.4" near Bloody Bridge and near County Road 66A and St. Rt. 66 roads. Rainfall on Friday ranged from 0.1" near County Road 66A and St. Rt. 66 roads to 0.44" near Santa Fe-New Knoxville and Kettlersville roads. Rainfall on Saturday ranged from 0.43" near Santa Fe-New Knoxville and Kettlersville roads to 1.5" near Mercer Line and St. Rt. 197 roads and County Road 66A and St. Rt. 66 roads. Rainfall on Tuesday ranged from a trace at four locations in the eastern part of the county to 0.1" near Mercer Line and St. Rt. 197 roads. Rainfall for the week ranged from 0.94" near Santa Fe-New Knoxville and Shelby-Fryburg roads to 2.2" near Mercer Line and St. Rt. 197 roads. Rainfall for the week averaged 1.42", 0.09" less than last week. Rain fell 16 days in March. Rainfall for March ranged from 4.34" near Valley and Idle roads to 5.88" near County Road 66A and St. Rt. 66 roads. The average rainfall for March was 5.15"!!, that is 2.15" above the normal of 3". Total average liquid precipitation for January, February, and March is 11.80", which is 4.8" above the normal year to date average.

The average high temperature now is 55 degrees F, four more than last week! Rising faster! Temperatures were above normal for 4 days of the week and below normal for 3 days of the week. The range in high temperature for the week was 42 to 65 degrees F. The average high temperature for the week was 56 degrees F, which is 8.4 degrees F warmer than last week and 1 degree F above the current normal high temperature.

Wheat – Wheat is greening up and growing now. However with the constant rainfall, wheat quality is deteriorating! This is my current rating of the wheat crop: 5% excellent, 45% good, 40% fair, and 10% poor. Last week's rating was as follows: 7% excellent, 29% good, 69% fair, and 0% for poor and very poor.

Alfalfa – Alfalfa is growing nicely.

Corn – Nothing to report.

Soybean – Nothing to report.

Weeds – Giant ragweed has started emerging. I would assume some common lambsquarters has emerged as well, but I have not seen any. If you need help planning your herbicide programs, feel free to call me.

Insects – Nothing for this week.

There were changes to the XtendiMAX label! There were NO changes to the Engenia, FeXapan, and Tavium labels. The Engenia label still has the most approved products compared to XtendiMAX and FeXapan. Four new herbicides were added to the XtendiMAX label this past week, which totals 238 herbicides. Seventeen new adjuvants were added the XtendiMAX label, now totaling 414. Eight new nozzles were added to the XtendiMAX label, which totals 44. Five new Drift Reducing Adjuvant (DRA's) were added to the XtendiMAX label this week, making a total of 95 DRA's. Eighteen new nutritional products were added from the XtendiMAX label which totals 246. One new product was added to the Insecticides, Fungicides, Plant Growth Regulator and Other group on the XtendiMAX label which totals 105. No new adjuvants were added to the Engenia label, which now totals 560. No new herbicides were added to the Engenia label, which brings the total herbicide count to 167. No new products were added to the Other category (growth regulators and fungicides) on the Engenia label, which totals 31. No new insecticides were added to the label which currently has 34 products. No new Drift Reducing Adjuvants (DRA's) were added to the Engenia label, which totals 126. No new nozzles were added to the Engenia label, which totals 31. No new nutritional products were added to the Engenia label which totals 223 products. No new products was added to the pH Modifier group of the Engenia label which totals 17 products. The FeXapan label has many of same the products and nozzles as the XtendiMAX label, but NOT all are the same, so check the FeXapan label carefully. The FeXapan website has changed drastically! They now have DRA's listed per product type that must be mixed with FeXapan. There are some products that need no DRA added! There are 13 glyphosate formulations, 228 herbicides, 41 insecticides, 16 fungicides, 87 DRA's, 297 adjuvants, 195 nutritionals, 4 other products, and 44 nozzles that have been approved for the FeXapan label. There are 47

herbicides, 77 DRA's, 258 adjuvants, 30 nutritionals, 16, insecticides, 7 fungicides, 8 other products, and 41 nozzles approved for use with Tavium.

Upcoming Meetings

1. **Ag Madness.** OSU Extension is offering a virtual educational session at 9:00 AM, Noon, and 3:00 PM. Go to the following website for the schedule of topics: go.osu.edu/AgMadness. I have attached a flyer with this newsletter about this awesome educational experience.
2. **All face to face meetings have been cancelled or postponed through May 15th. Meetings after this date will go on as planned at least until further notice.**

Answer to joke: Fry-day!!

When Should Herbicides be Applied to Wheat?



Weeds in winter wheat are usually not as big of a problem as compared to weeds in corn and soybean. The planting of winter wheat in September and October and the very competitive nature of wheat are two main reasons for fewer weeds, especially summer annual weeds.

However weeds can still be a problem in wheat, especially winter annual weeds such as purple deadnettle, henbit, field pennycress, shepherd's-purse, common chickweed, cressleaf groundsel, marestalk (horseweed), and others because they emerge in the fall before and after planting of winter wheat.

The key factors to managing weeds in winter wheat is timing of herbicides and choosing the correct herbicide. There are two important aspects of timing of herbicides, potential of injury to the winter wheat and timing to maximize weed control. Not many herbicides injure winter wheat unless they are mixed with liquid fertilizer as the spray carrier, with the exception of dicamba (Banvel / Clarity, and other products including Pulsar). Dicamba applied at and after jointing of winter wheat (Feekes stage 6) can drastically reduce winter wheat yield because this is the stage when the head begins to develop. Winter wheat has not jointed yet, but is not too far away. Therefore carefully scout winter wheat fields to determine its development before using dicamba. Buctril, Starane, Stinger, WideMatch, Orion, Talinor, and Axial have the greatest flexibility of timing as they can be applied through flag leaf emergence. All remaining herbicides must be applied BEFORE flag leaf emergence.

The other important aspect of timing is to maximize weed control. Winter annual weeds are already flowering. Therefore it is time to begin applying herbicides to control winter annual weeds. The winter annuals should have at least 2" of new growth before they are sprayed. If you expect summer annual weeds

such as giant ragweed or common lambsquarters to be a problem now is not the time to apply herbicides as these weeds are only starting to emerge. If you want to control winter and summer annual weeds, then an herbicide application between jointing and the second node is usually a good time.

Talinor is a newer winter wheat herbicide. Talinor will control winter annual weeds except purple deadnettle and henbit, but will control all summer annual weeds. Quelex will control most winter annual species, especially marestail and will control lambsquarters, pigweed, and smartweed. Finesse, Report Extra, Huskie, and tribenuron + thifensulfuron (ex. Harmony Extra) will effectively control more winter annual weeds than Quelex. Huskie, Talinor and Quelex are the only herbicides of those mentioned that will control marestail resistant to ALS-inhibiting herbicides (Group 2). Cleansweep D or M, Curtail, dicamba, 2,4-D, Huskie, and Pulsar plus MCPA provide the most effective control of the most common summer annual weeds.

Now that Talinor is labeled for winter wheat, crop rotation must also be considered. Talinor has a 10 to 12 month crop rotation restriction to soybean, a 9 to 12 month rotation to alfalfa, an 18 month rotation to red clover, a 10 month rotation to sorghum, and a 3 month rotation to oats. Other herbicides also have significant rotations to other crops. Quelex has a 15 month crop rotation restriction to red clover, a 9 month rotation to alfalfa, and a 3 month rotation to soybean, sorghum and all types of corn. Curtail has an 18 month crop rotation restriction to red clover and 10.5 months rotation to alfalfa, soybean, popcorn, and sweet corn. Pulsar has a 12 month crop rotation restriction to red clover, a 9 month rotation to alfalfa, soybean, and popcorn, and a 4 month rotation to sorghum and sweet corn. Huskie has a 4 month crop rotation restriction to soybean, corn and alfalfa.

Selection of the right herbicide applied at the right time is extremely important to maximizing weed control, reducing the risk of wheat injury, and rotation to other crops.

C.O.R.N. Newsletter

<https://agcrops.osu.edu/newsletter/corn-newsletter>

Join Us for Ag Madness!



Did your conference get canceled? Looking to fill the void of the big basketball tournament? OSU Extension Agricultural and Natural Resources Educators are here to assist.

Agriculture and Natural Resources Madness: A Tournament of Education consists of 64 educational events broken into daily brackets. Each day, a virtual educational session will be held at 9:00 a.m., noon and 3:00 p.m. at no charge. All events are listed at <https://go.osu.edu/agmadness>.

Brackets will change daily. Topics will cover a variety of agricultural subjects like hemp, pastures & grazing, fruit and vegetable production, farm management and more. When possible, live question and answer opportunities are included.

This week's bracket includes Direct Marketing (March 31), Farm Management (April 1), Forages, Pastures and Grazing (April 2) and Agricultural Safety (April 3).

To meet the needs of our clientele amid COVID-19, we began this virtual programming on March 24 with a webinar for produce growers with assistance on operating amid COVID-19. We followed up with a food safety webinar for consumers that is still available for viewing.

The agriculture crisis website has also been updated to provide resources for the agriculture community. To access these resources, visit <https://go.osu.edu/agcrisis>.

To find complete details on the educational opportunities throughout the Ag Madness tournament and to view replays of events already held, visit <https://go.osu.edu/agmadness>. The event will run through the end of April.

Author(s):
[Sam Custer](#)

Challenging Conditions Remain into April

Temperatures and Rainfall: Temperatures will start the first 7 days of April 1-3 degrees F above normal. Rainfall will start April below normal about half of normal. That is some good news as the end of March (as forecast) was very wet. However, most indications are for the remainder of April after the first week, temperatures will be near normal and rainfall slightly above normal. This will put pressure on early spring planting in April. Evaporation and evapotranspiration will be held in check by closer to normal temperatures as we go through April. The May outlook calls for warmer than normal and a little wetter than normal but not as wet as last year.

Soil Moisture and Temperatures: Soil temperatures has come out of winter above normal due to heavy saturation and the mild winter. However, soil moisture remains in the top 1-10% wettest on record so it is wet. With excess moisture to get rid of in the soils, expect soil temperatures to trend quickly from above normal to near normal.

Freeze and Frost: The normal time for the last hard freeze typically ranges from about April 10-20 from south to north. Frost is not uncommon into very early May. All indications remain that about a normal last frost and freeze can be expected this spring.

Summary: Most indications have not changed from the outlooks this winter. The spring planting season overall looks a bit warmer and wetter than average but not quite as wet as 2019. Therefore, expect challenging conditions at least through April if not May.

The latest NOAA climate information can be found at: <https://www.cpc.ncep.noaa.gov>

The latest river and soil information can be found at: <https://www.weather.gov/ohrfc/>

The latest Water Resources Outlooks can be found at: <https://www.weather.gov/ohrfc/WRO>

Author(s):

[Jim Noel](#)

H2Ohio Signup Deadline Returned to Tuesday, March 31st



Due to the COVID-19 and expected resulting budget issues, the Ohio Department of Agriculture has reinstated the original Tuesday, March 31st deadline for H2Ohio sign-up. The original deadline had been tentatively extended to June 2nd because of the COVID-19 but this extension no longer exists. Farmers and livestock producers in the 14 county Maumee River Watershed should immediately contact their local Soil and Water Conservation Districts. The SWCD districts will need your farm name, acres, and what practices you are interested in. They will likely be overwhelmed so have a good idea of what you want to sign-up for when you call. They can then work with you in the weeks that follow to get a contract signed.

For a complete list of the funded practices and for a listing of SWCD offices, go to <http://h2.ohio.gov/agriculture/>

Author(s):
[Glen Arnold, CCA](#)

Nitrogen Rate Recommendations for Wheat 2020



Wheat has already reached green-up across the state so spring N may be applied anytime fields are fit. Keep in mind that research has shown N can be applied up to Feekes GS 6 (one visible node) without a reduction in yield. However, wheat is growing slowly because of the cool temperatures, particularly in northern Ohio. Nitrogen applied early has the potential to be lost since wheat will use little N prior to jointing (Feekes GS 6). Urea-ammonium nitrate (UAN) or 28% has the greatest potential for loss and ammonium sulfate the least. Urea will have little potential for loss as long as it does not volatilize. No stabilizer will protect the nitrate component of UAN, which is roughly 25% of the total N in UAN at application time.

Ohio State University recommends the Tri-State guide for N rates in wheat. This system relies on yield potential. As a producer, you can greatly increase or reduce your N rate by changing the value for yield potential. Thus, a realistic yield potential is needed to determine the optimum N rate. To select a realistic yield potential, look at wheat yield from the past five years. Throw out the highest and lowest wheat yield, and average the remaining three wheat yields. This three-year average should reflect the realistic yield potential.

Table 10 in the Tri State guide recommends 110 lb N for yield goals of 90+; 70 lb for 75 bushels; and 40 lb N for 50-bushel yield goal (these recommendations are for total N and include any fall N). If you prefer to be more specific, the following equation may be used for mineral soils, which have both 1 to 5% organic matter and adequate drainage:

$$\text{N rate} = 40 + [1.75 \times (\text{yield potential} - 50)]$$

No credit is given for previous soybean or cover crops, since it is not known if that organic N source will be released soon enough for the wheat crop. The Tri-state recommends that you subtract from the total (spring N) any fall applied N up to 20 lb/A even if a larger amount was applied. Whether you deduct fall N depends how much risk you are willing to take and your anticipated return of investment from additional N. Based on the equation above and deducting 20 lb from a fall application, a

spring application of 110 lb N per acre would be recommended for a yield potential of 100 bu, 90 for 90 bu potential; 70 for a 80 bu potential and 40 lb N per acre for a 60 bu potential. Nitrogen rate studies at the Northwest Agricultural Research Station have shown the optimum rate varies depending on the year. However, averaged over years, yield data from these studies correspond well with the recommendation equation given above. These studies have also shown that regardless of the year, yields did not increase above a spring rate of 120 lb N per acre.

Wheat generally does not benefit from a nitrification inhibitor since temperatures are relatively cool at application time and the application is made to a growing crop, this is especially true as the crop approaches Feekes GS 6. However urea may benefit from a urease inhibitor (products containing NBPT) if conditions for volatilization exist for several days after application. These conditions would include an extended dry period with warm drying temperatures (risk increases with temperatures above 70°F) and evaporating winds. Urea applications need at least a half inch rain within 48 hours to minimize volatilization losses unless temperatures remain relatively cool. The urease inhibitor will prevent volatilization for 10 to 14 days with the anticipation of a significant rainfall event during this time.

Author(s):

[Ed Lentz, CCA](#), [Laura Lindsey](#), [Steve Culman](#)

Broadcasting Red Clover into Wheat



Looking at both the calendar and weather forecasts, frost-seeding is no longer a viable option to add red clover into a wheat stand. We can't count on good freeze/thaw cycles to create those honeycomb conditions

in the soil that create good seed to soil contact. The option left is to broadcast clover seed over the wheat stand. Successful establishment still depends upon getting good seed/soil contact. Growers need to evaluate soil, weather and stand conditions to determine if a straight broadcast operation is worth their time, effort and expense.

Evaluate the wheat stand. How dense is the stand? Can broadcast clover seed get down to the soil surface? How much soil is visible? A research study at North Carolina State University compared red clover seed broadcasted at 1.5-inch or lower vs. 3-inch high forage. The plots with 3-inch high forage had reduced clover seed germination and establishment. What is your field soil condition? Many soils around the state are saturated. This is not a desirable seeding condition. What is the weather forecast? Unfortunately, the reality for many wheat stands is that the window of opportunity to broadcast red clover is rapidly closing.

For those stands that still have limited top growth, have bare soil between rows, and are on non-saturated soil with good drainage, broadcasting red clover seed may still be an option. Consider the use of broadcasting seed using an ATV to increase timeliness on fields that are wet. Although we do not know of any replicated research trials to support this, some farms have reported success with adding red clover to their liquid nitrogen top-dress applications. A Penn State Extension publication on management of red clover as a cover crop includes the following statement, "An effective method of frost-seeding red clover is to mix the inoculated red clover seed with liquid nitrogen fertilizer and top-dress the mix onto winter small grains in March or early April. It is important to minimize the time that the seed and inoculant are in the fertilizer solution to maintain viability of the seed and bacteria. Therefore, mixing the seed with the fertilizer solution at the field is recommended. Since peat-based Rhizobium may clog up the sprayer, using a Rhizobium solution instead is recommended. Typically, flood nozzles are used, and screens are removed. Make sure the nozzles have an orifice large enough to keep them from becoming clogged up."

References:

<https://extension.psu.edu/management-of-red-clover-as-a-cover-crop>
<https://www.hayandforage.com/article-1193-Thinking-of-feeding-seed-Think-again.html>

Author(s):

Rory Lewandowski, CCA, Jason Hartschuh, CCA, Mark Sulc

Poison Hemlock Control



Poison hemlock remains one of the more persistent and prevalent poisonous weeds that we deal with in Ohio. It's most typically a biennial plant (sometimes perennial), emerging from seed in year one and developing into a low-growing rosette by late fall. The rosette overwinters and then resumes growth in the spring of year two. Stem elongation initiates sooner in spring than many other biennials, and this is followed by continued growth and development into the often very tall plant with substantial overall size. Flowering and seed production occur in summer.



Failure to control poison hemlock occurs partly because, while it often grows in edges and fencerows around crop fields, no one really pays much attention to it until it does reach this large size when it's less susceptible to herbicides. And everyone is busy getting crops planted in spring anyway so control of hemlock gets low priority. Stages in the poison hemlock life cycle when it is most susceptible to control with herbicides are: 1) fall, when in the low-growing rosette stage; and 2) early spring before stem elongation occurs. It's most easily controlled in fall, but several products can work well in spring. Herbicide effectiveness ratings for poison hemlock can be found in Table 21 of the current *Weed Control Guide for Ohio, Indiana, and Illinois*. Herbicides rated 8 or 9 on poison hemlock include the following: 9 – Crossbow, Remedy Ultra; 8 – Cimarron Max, Curtail, dicamba, glyphosate. Mixing glyphosate and dicamba can improve control compared with either applied alone.



Several online resources cover poison hemlock more comprehensively than this article does, including [this one](#) from the University of Missouri. Information on toxicity can also be found via an internet search or by contacting OSU Extension if help is needed to resolve a specific concern.

Author(s):

[Mark Loux](#), [Curtis Young, CCA](#)

Black Cutworm and Its Allies



Black cutworm larva image from Bugwood database. Credit: Roger Schmidt, University of Wisconsin-Madison, Bugwood.org

Cutworms are the larval stage of several moths in the insect Order Lepidoptera: Family Noctuidae (the Owllet Moths) which includes cutworms and armyworms. Several species of cutworm occur in Ohio. Typically they have 1-2 generations per year depending on the species and adult flights occur at different times through the growing season. All have 4 stages in their life cycles: eggs, larvae (caterpillars = cutworms), pupae and adults. Again, depending on the species, some overwinter as partially grown caterpillars, others as prepupae in the soil, and others do not overwinter in Ohio and must migrate into the state every year. Recognizing these caterpillars for who they are will again be important this year because of the amount of early weed growth on many agricultural fields which is very attractive to adults for egg laying or good cover for overwintered larvae.

The black cutworm, *Agrotis ipsilon*, is probably the best known of the cutworms, but several others are fairly common in agricultural fields. Although they may be less significant to the success of the crops, they could be confused with black cutworms. Some of these additional cutworms include the dingy cutworm, clay-backed cutworm, sandhill cutworm, and variegated cutworm.

The dingy cutworm, *Feltia jaculifera*, are very common in Ohio. They are frequently mistaken for black cutworms. However, they primarily feed on weed species in agricultural fields and rarely cause much damage to crops. Dingy cutworms overwinter as partially grown larvae, so relatively large caterpillars can be present in cornfields at planting time, particularly in weedy fields. Dingy cutworm larvae are pale gray to brown, tinged with red. A faint, dark V-shaped marking appears on the back of each abdominal segment. The head is pale brown-gray. Tubercles (raised bumps on the skin) along the top of the abdominal segments are equal in size (on the same segment), in contrast to the unequal-sized tubercles on the back of the black cutworm. A full-grown larva is 1 1/3 inches long.

The clay-backed cutworm, *Agrotis gladiaria*, can be just as destructive as black cutworms. Its range covers much of the eastern US, but is not observed in Ohio often or it is mistaken for black cutworm activity. It overwinters as partially-grown larva and can cause significant damage early in the spring. Their feeding habits are similar to those of black cutworms. The cutworm has a broad, yellow-brown stripe on the

back. The rest of the body is pale gray and translucent, and the head is gray-brown with bars on the front of the face. A full-grown larva is 1 1/3 inches long.

The sandhill cutworm, *Euxoa deters*, is somewhat a specialist to fields with sandy soils or sandy knolls in the middle of clay-soiled fields. They can be very destructive on these sandy knolls. Some may miss this cutworm chalking up thin stands to poor soil conditions. Sandhill cutworms construct subterranean burrows to feed on underground portions of host plants. It is another cutworm that overwinters as a partially grown larva. The larva is white to pale gray. Faint, chalky-white stripes are evident on the back and sides, and the head is dull red-brown. A full-grown larva is about 1 1/3 inches long.

The variegated cutworm, *Peridroma saucia*, is a pest of numerous different crops including soybean, corn, fruits, and many vegetables. Variegated cutworms do not overwinter in Ohio. The moths fly into the Midwest during the spring. Females deposit eggs in pastures, edge of field grasses, densely growing weeds, and debris in fields that have not been tilled. The caterpillar's color varies considerably. However, a narrow line of pale yellow dots along the middle of the back is almost always present. A full-grown larva is 1 1/2 inches long.

Author(s):

[Curtis Young, CCA](#)

Toxicity of Pesticides



Toxicity of pesticides is important for farmers to understand because it can affect your health and safety. It also helps when addressing questions that come from consumers about why you use pesticides and how toxicity compares to products they use every day. When considering the toxicity of pesticides, we need to

address the toxicity to both pests and humans. But first, please note the term pesticide refers any chemical used to manage pests (insecticide, herbicide, fungicide, etc), and a pest refers to what is being controlled (insect, weed, disease, etc). Toxicity to pests and humans needs to be considered separately, as something more toxic to a human does not mean it offers better control of the pest. Also, something highly effective at managing a pest does not have to be highly toxic to humans. We are different organisms so products affect us differently.

Toxicity to pests refers to how well a product controls the pest. This is often referred to as efficacy. Efficacy is a rating on the level of control offered by products labeled for a specific pest. Most of these ratings are a result of research trials conducted by universities. For example, weed scientists will apply several different herbicides in test strips to a field, then observe how many weeds remain in each strip to determine the efficacy rating.

Toxicity to humans is identified by what are called “Signal Words.” These are found on the first page of the label as Caution, Warning or Danger. So, what exactly do they mean and how are they determined?

Signal words are determined by the LD₅₀ rating. This stands for the lethal dose for 50% of the test population. Tests are done to determine what rate (milligram of toxicant/kilogram of body weight) is lethal to 50% of the population. This is then equated to an average adult body weight. The following table shows how much product must be swallowed to cause death in 50% of adults, for each LD₅₀ range.

Table 1: Lethal Dose Ratings and Consumption

Oral LD₅₀	Lethal Dose	Signal Word
<i>(mg toxin/kg body weight)</i>	<i>(for an average adult)</i>	
0-5	A drop or pinch	Danger
5-50	A few drops to 1 tsp	
50-500	1 tsp to 1 Tbsp	Warning
500-5,000	1 oz to 1 pint	Caution
5,000-15,000	1 pint to 1 quart	
>15,000	> 1 quart	

From this table, you can see that Caution is the least toxic and Danger, the most. Some products with an LD₅₀ greater than 5,000 may not have a signal word listed because the EPA considers it practically non-toxic. Looking at the amount of product required to be ingested under Caution, one ounce does not seem like a lot but, when you consider using the product, properly mixing it, applying it, storing it, it would be very difficult to accidentally swallow an ounce. It would be easy for a small child to do so, not knowing what the product is, or even an adult if the product is stored in a food container. This is why it is very important to always store pesticides in their original containers and keep them out of reach of children. When we look at the Danger category, it becomes a lot easier to imagine accidentally ingesting a drop when you are handling and mixing the product. This is where personal protective equipment (PPE) becomes even more critical. Every label has PPE requirements based on the toxicity levels to protect the user. PPE for products in the Caution category are usually long sleeve shirt, pants, shoes plus socks and waterproof or chemical resistant gloves. In the Warning or Danger categories, PPE can include respirators, face shields, chemical resistant clothing, etc. Note that Table 1 refers to the oral toxicity. Other routes of entry include skin absorption, inhalation and ocular. PPE protects against all four areas of exposure.

Now let's look at the LD₅₀ values of pesticides and common consumer products.

Table 2: Lethal Dose Values of Pesticides and Consumer Products

Pesticides	LD₅₀	Common Consumer Products	LD₅₀
Headline ¹	>500	Nicotine	9
Quadris ¹	>2,000	Caffeine	192
Gramoxone Max ²	150	Bleach	192
Atrazine ²	1,869-3,090	Tylenol	338
Dicamba ²	2,629	Household Ammonia (10%)	350
Glyphosate ²	>5,000	Codeine	427
Warrior II ³	79	Table Salt	3,000

Bifenthrin ³	262		
-------------------------	-----	--	--

Sources: <https://edis.ifas.ufl.edu/pdffiles/PI/PI17000.pdf>; <https://extension.psu.edu/toxicity-of-pesticides>

¹ Fungicide

² Herbicide

³ Insecticide

Remember that the lower an LD₅₀ value, the more toxic it is. This table shows that many of the common consumer products we use every day are more toxic than a lot of the pesticides used. For example, glyphosate (the active ingredient in Roundup®) is the least toxic product listed.

This information enables us to make safer decisions about the chemicals we use. If a person is using Gramoxone Max and sees the toxicity level is much higher than other herbicides, that person can look for an alternative option with the same level of control but is much safer to use.

The glyphosate court cases have added to the confusion of the toxicity of pesticides. As seen in Table 2, glyphosate is one of the least toxic pesticides, but has gotten a lot of attention for allegedly causing cancer. Numerous agencies, including the US EPA and the European Food Safety Authority, have reviewed the research on glyphosate causing cancer and have found it to be non-carcinogenic. One group, the International Agency for Research on Cancer, did say it was a “probable carcinogen.”

This leads into the discussion of the effects of pesticide exposure. This is broken down into two categories: Acute and Chronic. Acute toxicity refers to the immediate effects of exposure such as nausea, headaches, and blurred vision. Chronic toxicity is a result of long-term exposure, typically several years to a lifetime. Examples include cancer, mutations and birth defects in offspring. For all labeled pesticides, this information is available in the safety data sheet. To find labels and safety data sheets visit <http://cdms.net>. For more information on pesticides, please visit the National Pesticide Information Center at <http://npic.orst.edu>.

Author(s):

[Amanda Douridas](#)

I missed Private Pesticide Applicator and Fertilizer Re-Certification...



Many local Extension office have received farmer calls lately asking how the COVID-19 emergency will affect pesticide recertification. The "Stay at home" order began prior to the end of March 2020, leaving those remaining private pesticide and fertilizer training programs postponed or suspended for the moment. On a normal year, the 3-year private applicator re-certification cycle ends on March 31. Additionally, Ohio Department of Agriculture's new pesticide applicator testing program was also suspended for now. Among others, this will affect those who wish to mix, load or apply approved dicamba products (Xtendimax, FeXapan, Engenia or Tavium) to Xtend traited soybeans, as these products are now restricted use.

With the signing of House Bill 197, Ohio's COVID-19 emergency response legislation, the March 31, 2020 deadline for private pesticide applicators (farmers) and the May 31, 2020 deadline for agricultural fertilizer certificate holders to renew their license and get training has been extended.

The deadline is now 90 days after the state of emergency Executive Order ends or December 1, 2020, whichever comes first.

All in-person OSUE training events are cancelled or postponed through at least May 15. We will continue to update you as meetings are scheduled. You may continue to check these websites for more information: www.pested.osu.edu or <https://agri.ohio.gov/wps/portal/gov/oda/divisions/plant-health/news-and...>

Author(s):
[Eric Richer, CCA](#)

Why Ohio Farmers Should Participate in the CTIC Cover Crops Survey



After taking a break from surveying in the last two years, the Conservation Technology Information Center (CTIC) is now once again sending out a national cover crop survey to farmers. The survey questions are primarily geared toward grain farmers. Still, there are some questions specific to horticulture producers and a fair number of items that any type of crop producer would find relevant. Most survey questions are for farmers already using cover crops, but there are a few for farmers not yet using cover crops.

Farmer insights are now being sought for the sixth nationwide cover crop survey by USDA's SARE (Sustainable Agriculture Research and Education) program, the Conservation Technology Information Center (CTIC) and the American Seed Trade Association (ASTA).

The online questionnaire is now open at <https://bit.ly/CCSurvey2020>. The survey is open until April 12. Please share the link with others. The survey seeks answers not just from long-time cover crop fans, but also from new users and farmers who have not planted cover crops at all.

Many of you have seen past results from previous national farmers cover crop surveys funded by the USDA Sustainable Agriculture Research and Education (SARE) program and carried out by the Conservation Technology Information Center (CTIC). American Seed Trade Association has also provided financial support for the survey in the last few iterations.

The survey takes about 10 to 15 minutes to complete. Participants who complete the survey can enter a drawing for Visa gift cards worth up to \$200.

Previous Cover Crop Survey reports are available online at https://www.ctic.org/data/Cover_Crops_Research_and_Demonstration_Cover_Crop_Survey.

Author(s):
[Sarah Noggle](#)

Other Articles

Paycheck Protection Program Offers Forgivable Loans for Eligible Small Businesses

March 30, 2020 | Kristine A. Tidgren

Source: <https://www.calt.iastate.edu/blogpost/paycheck-protection-program-offers-forgivable-loans-eligible-small-businesses>

On Friday, March 27, 2020, the President signed into law [H.R. 748](#), the Coronavirus Aid, Relief, and Economic Security (“CARES”) Act. The CARES Act contains a number of relief provisions designed to sustain Americans during the COVID-19 health and economic crisis. This post provides a general overview of a new small business loan program, the Paycheck Protection Program. Other posts detail [individual tax provisions](#) and [business tax provisions](#).

The Paycheck Protection Program, implemented by section 1102 of the CARES Act, expands the Small Business Administration 7(a) loan program to provide up to \$349 billion in federally-guaranteed loans to small employers and eligible self-employed individuals impacted by COVID-19. These loans are designed to be partially forgivable under section 1106. While a number of details must be filled in with applicable regulations, this post provides an overview of the law as set forth in the statute.



Who is Eligible?

The CARES Act amends the Small Business Act to expand the small business loan program by creating section 7(a)(36), the Paycheck Protection Program. The program, administered through the Small Business Administration, expands the definition of eligible small businesses and organizations to include many not ordinarily eligible for an SBA loan.

Eligible Businesses

Specifically, during the covered period, in addition to "small business concerns" meeting size standards under current SBA regulations, any:

- **business concern,**
- **501(c)(3) nonprofit,**
- **veterans' organization, or**
- **Tribal business concern**

shall be eligible to receive a covered loan if the business concern, nonprofit organization, veterans' organization or Tribal business concern employs 500 or fewer employees. The term "employee" for purposes of determining how many employees a business employs includes individuals employed on a full-time, part-time, or other basis. Additionally, businesses with a North American Industry Classification System (NAICS) code beginning with 72 are eligible to receive a loan if a multi-location business does not employ more than 500 employees per physical location. NAICS code 72 comprises lodging and restaurant businesses.

Definition: This program provides “covered loans” during the “covered period.” For purposes of section 1102, the term “covered loan” means a loan made under the program during the covered period. The term “covered period” means the period beginning on February 15, 2020, and ending June 30, 2020.

Eligible Self-Employed Individuals

During the covered period, individuals who operate under a sole proprietorship or as an independent contractor, and “eligible self-employed individuals” shall also be eligible to receive a covered loan. The term “eligible self-employed individuals” is defined as it is in the Families First Coronavirus Response Act. It includes any individual who:

- Regularly carries on any trade or business within the meaning of IRC § 1402 and
- Would be entitled to receive paid leave during the taxable year pursuant to the Emergency Paid Sick Leave Act (created by the CARES Act) if the individual were an employee of an employer other than himself or herself.

An eligible self-employed individual, independent contractor, or sole proprietorship seeking a covered loan must submit documents to establish the individual as eligible, including payroll tax filings, Forms 1099-MISC, and income expenses from the sole proprietorship, as determined by the SBA.

Affiliations

SBA rules applicable to affiliations generally continue to apply, except that these rules are waived with respect to eligibility for a covered loan for:

- Accommodation and food service industry business concerns with not more than 500 employees on the date the covered loan is disbursed
- Any business concern operated as a franchise that is assigned a franchise identifier code by the SBA
- Any business concern receiving financial assistance from a company licensed under section 301 of the Small Business Investment Act

Loan Description

Maximum Loan Amount

During the covered period, the maximum loan amount is generally the *lesser* of: (1) \$10,000,000 or (2) 250 percent of the average monthly *payroll costs* incurred during the one-year period before the date on which the loan is made, plus any refinanced Economic Injury Disaster loans received after January 31, 2020.

Startups that were not in business between February 15, 2019, and July 30, 2019, calculate average monthly payroll costs based upon the period beginning January 1, 2020, through February 29, 2020. Seasonal employers may calculate the average monthly payroll costs based on the 12-week period beginning on February 15, 2019 or, alternatively, the period from March 1, 2019 through June 30, 2019.

Allowable Uses

During the covered period, recipients may use the proceeds of a covered loan for the following purposes:

- Payroll costs
- Costs related to the continuation of group health care benefits during periods of paid sick, medical or family leave, and insurance premiums
- Employee salaries, commissions, or similar compensation
- Payments of interest on any mortgage obligation (not including prepayments or the payment of principal)
- Rent (including rent under a lease agreement)
- Utilities
- Interest on any other debt obligations that were incurred before the covered period (February 15, 2020).

Payroll Costs

“**Payroll costs**” include compensation with respect to employees that includes:

- salary, wages, commissions, and similar compensation;
- payment of cash tips or equivalent;
- payment for vacation parental, family, medical, or sick-leave;
- allowance for dismissal or separation;
- payment required for group health benefits, including insurance premiums;
- payment of retirement benefits; or
- payment of state or local tax assessed on employee compensation;
- the sum of payments of any compensation to or income of a sole proprietor or independent contractor that is a wage, commission, income, net earnings from self-employment, or similar compensation and that is in an amount that is not more than \$100,000 in one year, as prorated for the covered period.

Payroll costs do NOT include:

- compensation of an individual person in excess of \$100,000, as prorated for the covered period

- federal employment or withholding taxes imposed during the covered period;
- compensation to an employee whose principal residence is outside of the U.S.;
- qualified sick leave for which a credit is allowed under section 7001 of the Families First Coronavirus Response Act; and
- qualified family leave wages for which a credit is allowed under section 7003 of the Families First Coronavirus Response Act

Loan Terms

Non-forgiven portions of these loans have a maximum maturity of ten years from the date the borrower applies for loan forgiveness. The interest rate on the loans cannot exceed four percent, and lenders must provide complete interest and principal payment deferment relief for at least six months (and up to one year). Additionally, the non-recourse loans (to the extent they are used for authorized purposes) require no personal guarantee or collateral. Borrowers are not required to prove that they cannot obtain the funds elsewhere, and there is no prepayment penalty or SBA fee.

Applications

Considerations

Potential borrowers must file their applications with an SBA-approved lender. For purposes of making covered loans, a lender approved to make loans under the program shall be deemed to have been delegated authority by the SBA Administrator to make and approve covered loans, without separate SBA approval. In evaluating the eligibility of a borrower for a covered loan, a lender shall consider whether the borrower was in operation on February 15, 2020, and (1) had employees for whom the borrower paid salaries and payroll taxes or (2) independent contractors, as reported on a Form 1099-MISC.

Those applying for a covered loan must make a good faith certification that:

- The uncertainty of current economic conditions makes necessary the loan request to support the ongoing operations,
- That the funds will be used to retain workers and pay eligible expenses,
- That the applicant does not have an application pending for another loan for the same purpose, and
- That for the period beginning on February 15, 2020, and ending on December 31, 2020, the eligible recipient has not received amounts under the program for the same purpose

Additional Lenders

The law extends the authority to make Paycheck Payment Program loans (but not other SBA loans) to additional lenders determined by the SBA Administrator and the Secretary of the Treasury to have the necessary qualifications to process, close, disburse, and service loans made with the guarantee of the SBA.

Lenders authorized to make covered loans are eligible to be reimbursed from the SBA Administrator at a rate of (based on the balance of the financing outstanding at the time of disbursement of the covered loan):

1. Five percent for loans of not more than \$350,000
2. Three percent for loans of more than \$350,000 and less than \$2,000,000, and
3. One percent for loans of not less than \$2,000,000.

Prioritization of Loans - "Sense of the Senate"

The law states:

It is the sense of the Senate that the Administrator should issue guidance to lenders and agents to ensure that the processing and disbursement of covered loans prioritizes small business concerns and entities in underserved and rural markets, including veterans and members of the military community, small business concerns owned and controlled by socially and economically disadvantaged individuals, women, and businesses in operation for less than 2 years.

Loan Forgiveness

Section 1106 outlines the loan forgiveness available for "covered loans," which are loans guaranteed under the Paycheck Protection Program. Generally, a borrower is **eligible for loan forgiveness** on a covered loan in an amount equal to the sum of the following costs incurred and payments made during the covered period (which for 1106 means the 8-week period beginning on the date of the origination of a covered loan):

- payroll costs (as defined in the above section)
- any interest payment on any covered mortgage obligation (which shall not include any prepayment of or payment of principal on a covered mortgage obligation)
- "Covered mortgage obligation" means an indebtedness or debt instrument incurred in the ordinary course of business that (a) is a liability of the borrower, (b) is a mortgage on real or personal property, and (c) was incurred before February 15, 2020.
- payment of any covered rent obligation
- "Covered rent obligation" means rent obligated under a leasing agreement in force before February 15, 2020.
- covered utility payments

- “Covered utility payment” means payment for a service for the distribution of electricity, gas, water, transportation, telephone, or internet access for which service began before February 15, 2020.

Amounts forgiven are cancelled indebtedness by the lender authorized under section 7(a) of the Small Business Act. Within 90 days after the date on which the forgiveness is determined, the SBA Administrator will remit to the lender the amount of the forgiven loan, plus any interest accrued through the date of the payment.

Limits on Forgiveness

The amount of loan forgiveness cannot exceed the principal amount of the financing made available. The forgiveness amount is also subject to reduction if there is a reduction in employees or a reduction in the salary or wages of any employee.

Reduction of Number of Employees

The loan forgiveness will be reduced by multiplying the presumed forgiveness amount by (the average full-time equivalent employees (FTEs) during the covered period ÷ average FTEs for the period from February 15, 2019 through June 30, 2019 **or** January 1, 2020 through February 29, 2020, at the election of the borrower). Special rules apply to seasonal employers.

Salary and Wage Reduction

The loan forgiveness will be reduced by any reduction in total salary or wages of any employee during the covered period that is in excess of 25 percent of the total salary or wages during the most recent full quarter during which the employee was employed before the eight-week coverage period. Employees who received, during any single pay period during 2019, wages or salary at an annualized rate of pay in excess of \$100,000 are not included in this calculation.

Reductions in employees, salaries and wages that occur between February 15, 2020 and April 26, 2020, are disregarded for purposes of the forgiveness reduction as long as the reductions are eliminated by June 30, 2020.

Application for Loan Forgiveness

Borrowers must apply for forgiveness with the lender servicing the loan. The application for the forgiveness shall include:

- Documentation verifying the number of FTE equivalent employees on payroll and pay rates, including:
- Payroll tax filings reported to the IRS and State income, payroll, and unemployment insurance filings
- Documentation, including cancelled checks, payment receipts, transcripts of accounts, or other documents verifying payments on covered mortgage obligations, payments on covered lease obligations, and covered utility payments
- A certification that the documentation is true and correct and the amount for which forgiveness is requested was used to retain employees, make interest payments on a covered mortgage, make payments on a covered rent obligation, or make covered utility payments,
- Any other documentation the SB Administrator determines necessary

No forgiveness will be granted absent the required documentation. Lenders have 60 days to review and make a determination on the forgiveness application. The lender will be held harmless for decisions made based upon erroneous documentation. Any portion of the loan that is forgiven will be excluded from the gross income of the borrower.

Guidance and Applications

The SBA Administrator is required to issue regulations within 30 days of the enactment of the law. We eagerly await further guidance. A number of questions remain regarding implementation of this important law, particularly with respect to the self-employed. Potential borrowers must also evaluate and compare other options provided by the CARES Act, including the [employee retention credit and the option to defer payroll taxes](#). In the meantime, interested small businesses should consult with their lenders immediately regarding their specific requirements for the program.

The Center for Agricultural Law and Taxation does not provide legal advice. Any information provided on this website is not intended to be a substitute for legal services from a competent professional. The Center's work is supported by fee-based seminars and generous private gifts. Any opinions, findings, conclusions or recommendations expressed in the material contained on this website do not necessarily reflect the views of Iowa State University.

What's in the CARES Act? Part One - Individual Tax Provisions

March 27, 2020 | Kristine A. Tidgren

Source: <https://www.calt.iastate.edu/blogpost/whats-cares-act-part-one-individual-tax-provisions>

Update: Late day, March 30, 2020, [IRS posted a web page providing our first information on what IRS is calling "economic impact payments."](#) On this page, IRS states that those who did not file a return in 2018 or 2019 must file a "simple tax return" to receive an economic impact payment. The notice states that the IRS COVID-19 website will soon provide information instructing people in these groups on how to file a 2019 tax return with simple, but necessary, information including their filing status, number of dependents and direct deposit bank account information. IRS also states that it plans to create a web portal into which those for whom IRS has no direct deposit information can provide that information. Stay tuned and keep checking [IRS.gov/coronavirus](https://www.irs.gov/coronavirus).

On Friday, March 27, 2020, the President signed into law [H.R. 748](#), the Coronavirus Aid, Relief, and Economic Security ("CARES") Act. The CARES Act contains a number of relief provisions—including tax provisions—designed to sustain Americans during the COVID-19 health and economic crisis. The law is complex, but this post provides an overview of key individual tax provisions included in the law. Other posts detail the [business tax provisions](#), as well as special provisions expanding small business loans ([Paycheck Protection Program](#))..



Rebates for Individuals (§ 2201)

The most wide-reaching provision in the law provides “2020 recovery rebates for individuals.” These rebates, which are characterized as *credits against 2020 taxable income*, will be issued in the amount of \$1,200 for “eligible individuals” or \$2,400 for “eligible individuals” filing a joint return. In addition, “eligible individuals” will receive \$500 for each “qualifying child,” as defined by IRC § 24(c), for purposes of the child tax credit. This generally includes dependent children under the age of 17 for whom the individual has a social security number.

“Eligible individuals” include “any individual” except for:

- Nonresident alien individuals
- Individuals who can be considered a dependent of another individual
- An Estate or Trust

AGI Phaseout

The amount of the recovery rebate credit is reduced by five percent of the amount by which a taxpayer’s adjusted gross income exceeds \$150,000 for joint return filers, \$112,500 for those filing head of household, or \$75,000 for other taxpayers.

The recovery rebate is to be “treated as allowed” as a refundable tax credit.

Note: Although called a “credit against 2020 taxable income,” recovery rebate credits are wholly refundable credits for which no taxable income is required.

Determining the Recovery Rebate Amount

To allow IRS to efficiently determine the amount of the recovery rebate credit for each individual and pay that amount quickly, the law defines an “advance refund amount.” This is the amount of the recovery rebate credit that the Treasury Department will distribute to taxpayers “as rapidly as possible.” The “advance refund amount” is the amount that would have been allowed as a credit to that individual in 2019 had the recovery rebate credit been part of the law in 2019. In the case of an individual who has not filed a tax return for 2019, the Secretary may substitute taxable year 2018 for taxable year 2019. In other words, if no 2019 return is on file, the “advance refund amount” is the amount that would have been allowed as a credit to that individual in 2018 had the recovery rebate credit been part of the law in 2018. If an individual did not file a return in 2018 or 2019, the Secretary may use information for the individual’s 2019 calendar year provided in that person’s Social Security Benefit Statement or Social Security Equivalent Benefit Statement. The law states that those who were “eligible individuals” for the 2019 taxable year (or the 2018 taxable year if the 2019 return has not been filed) are treated as having made a tax payment in the amount equal to the “advance refund amount” for that taxable year.

Advance Refund Payments

The Treasury Department is instructed to distribute to taxpayers “as rapidly as possible” an advance refund of the recovery rebate credit. The law directs that the Secretary may certify and disburse the advance refund payments electronically to an account to which the payee has authorized, on or after January 1, 2018, the delivery of a tax refund. If direct deposit is not available, the IRS will mail a check to the address on record. No interest is allowed on any overpayment attributable to these advance rebate payments. Within 15 days of the date the advance refund payment is distributed, notice of the payment shall be mailed to the taxpayer’s last known address.

Reconciling the Advance Refund Payment and the Recovery Rebate Credit

The law states that when filing the 2020 return, the amount of the 2020 recovery rebate credit will be reduced (**but not below zero**) by the aggregate refunds and credits made or allowable to the taxpayer through an advance refund payment. With joint filers, half of each credit is treated as made or allowed to each individual.

Considerations

The statutory language provides that if the advance refund payment sent to the taxpayer was more than the 2020 recovery rebate credit calculated at the time the 2020 return is filed, the taxpayer will not be required to repay the difference. If, however, the taxpayer is entitled to a higher credit using actual 2020 data, the taxpayer will be entitled to recover the difference as an offset against 2020 tax liability or as a refundable credit. It thus appears that the provision is very taxpayer friendly. If 2019 income does not limit the credit, but 2020 income would, the taxpayer will receive the full credit. Conversely, if 2019 income would have limited the credit, but 2020 income does not, the taxpayer may claim the full credit when filing the 2020 return. This may also mean that some taxpayers might fare better if they have not filed a 2019 return, while others will fare better if they have.

IRS guidance will clarify these issues. It is clear that taxpayers will not be disadvantaged when a new child is born in 2020. They will receive a \$500 credit for that child when they file their 2020 return. It is not clear, however, how IRS will calculate the advance refund payments for qualifying children who “aged out” of the system in 2019 or 2020. It does appear, however, that if the IRS does make a \$500 payment for a child who turns 17 in 2020, the taxpayer will not be required to repay that amount.

Special Rules for Use of Retirement Funds (§§ 2202, 2203)

Penalty-Free Distributions

Section 2202 of the CARES Act provides that a taxpayer may take up to \$100,000 in distributions from a qualified retirement plan without being subject to the 10 percent penalty imposed by IRC § 72(t) if that distribution is “coronavirus-related.”

This includes distributions made on or after January 1, 2020, and before December 31, 2020, to:

1. individuals diagnosed with COVID-19,
2. individuals whose spouse or dependent was diagnosed with COVID-19, or
3. individuals who experience adverse financial consequences as a result of being quarantined, being furloughed or laid off, or having work hours reduced due the virus, being unable to work due to the lack of child care due to the virus, or closing or reducing hours of a business owned or operated by the individual due to the virus.

An individual receiving such a distribution may repay it within three years. In addition, the taxpayer may include the income from the distribution in gross income ratably over a period of three years.

Retirement Plan Loans

The law also relaxes the rules for loans from qualified plans, including temporarily increasing the loan limit from \$50,000 to \$100,000 and delaying repayment dates for some outstanding loans by one year.

Waiver of RMD Requirements

Section 2203 of the law temporarily waives Required Minimum Distributions for calendar year 2020 for a number of retirement plans and individual retirement accounts.

Charitable Contribution Provisions (§§ 2204, 2205)

Allowance of partial above-the-line deduction for charitable contributions

Section 2204 of the CARES Act provides that taxpayers who do not itemize deductions may take an above-the-line deduction on their 2020 return for qualified charitable contributions in an amount not to exceed \$300.

Modification of limitations on charitable contributions

Section 2205 of the CARES Act temporarily suspends the 60 percent AGI limit for cash charitable contributions that can be deducted by individuals. In 2020, individuals may deduct qualified contributions in an amount up to 100 percent of AGI. The deduction limit for cash charitable contributions for corporations is increased for 2020 from 10 percent of taxable income to 25 percent of taxable income for qualified contributions. Qualified contributions do not include contributions to a donor advised fund. The law also provides that a corporation can take a deduction in amount up to 25 percent of taxable income for donations of food inventory to charitable organizations in 2020. The food must be used for the care of the ill, needy, or infants. The usual deduction limit for these contributions is 15 percent.

Exclusion for Certain Employer Payments of Student Loans (§ 2206)

Current law allows an employee to exclude from income up to \$5,250 of employer payments made under an educational assistance program for the employee's education. Section 2206 of the CARES Act allows student loan repayments by an employer to be included in qualifying payments under an educational assistance program. In other words, an employee can exclude from income up to \$5,250 of student loan payments made on his or her behalf by an employer if no other educational assistance was provided. Employees may not also take a deduction for the interest on those payments.

The Center for Agricultural Law and Taxation does not provide legal advice. Any information provided on this website is not intended to be a substitute for legal services from a competent professional. The Center's work is supported by fee-based seminars and generous private gifts. Any opinions, findings, conclusions or recommendations expressed in the material contained on this website do not necessarily reflect the views of Iowa State University.

What's in the CARES Act? Part Two - Business Tax Provisions

March 28, 2020 | Kristine A. Tidgren

Source: <https://www.calt.iastate.edu/blogpost/whats-cares-act-part-two-business-tax-provisions>

On Friday, March 27, 2020, the President signed into law [H.R. 748](#), the Coronavirus Aid, Relief, and Economic Security ("CARES") Act. The CARES Act contains a number of relief provisions—including tax provisions—designed to sustain Americans during the COVID-19 health and economic crisis. This post provides an overview of key business tax provisions implemented by the law. A separate post looks at [individual tax provisions](#). We will post additional information on special small business loan programs ([Paycheck Protection Program](#)) and other non-tax provisions in the CARES Act soon.



Employee Retention Credit for Employers Subject to Closure Due to COVID-19 (§ 2301)

Section 2301 of the CARES Act allows “eligible employers” a refundable payroll tax credit equal to 50 percent of qualified wages paid to each employee for each calendar quarter during the COVID-19 crisis. The qualified wages which may be taken into account cannot exceed \$10,000 per employee for all quarters. The credit cannot exceed the applicable employment taxes on the qualified wages (reduced by any credits taken under the [Families First Coronavirus Response Act](#) or the [employer credit for paid family and medical leave](#)).

“**Eligible employers**” are those employers (including non-profit employers) whose businesses were fully or partially suspended during the calendar quarter due to orders from an appropriate governmental authority limiting commerce, travel, or group meetings due to COVID-19. The definition for “eligible employers” also includes those employers that experienced a “significant decline in gross receipts” for a given calendar quarter. An employer becomes an “eligible employer” under the “significant decline in gross receipts” test during the first calendar quarter for which gross receipts for that quarter are less than 50 percent of gross receipts for the same calendar quarter in the prior year. The eligibility period ends in the calendar quarter following the first calendar quarter in which gross receipts are greater than 80 percent of gross receipts for the same calendar quarter in the prior year.

The definition of “**qualified wages**” depends upon the size of the employer. Eligible employers that had an average of 100 or fewer full-time employees in 2019 may take the credit for all employee wages, whether or not the employee was furloughed. For eligible employers with more than 100 average employees in 2019, the employer may take the credit only for the wages of employees who were actually furloughed or placed on

reduced hours because of a business closure or reduced gross receipts. The definition of "qualified wages" includes the cost of health benefits.

This credit is not available to those employers who are receiving Small Business Interruption Loans (through the Paycheck Protection Program) or for wages of an employee for whom the employer is allowed a Work Opportunity Credit.

Delay of Payments of Payroll Taxes, RRTA Tax, and SECA (§ 2302)

Section 2302 of the CARES Act allows employers to temporarily defer payment of the employer's portion of social security and RRTA payroll taxes. It provides the same opportunity to self-employed individuals for ½ of the self-employment tax. The requirement to deposit these taxes is delayed through the end of 2020. The delayed taxes must then be repaid in two equal installments, one due by December 31, 2021, and the other due by December 31, 2022.

The payroll tax delay does not apply to any taxpayer who has had debt forgiven with respect to a loan under the Small Business Act or under § 1109 of the CARES Act.

Net Operating Loss Modifications (§ 2303)

Section § 2303(b) of the CARES Act allows net operating losses arising in tax years beginning in 2018, 2019, and 2020 to be carried back five years. The Tax Cuts and Jobs Act had eliminated carrybacks for net operating losses arising in businesses other than farming businesses and casualty insurance companies (which were allowed a two-year carryback). The new five-year rule applies to all businesses, including farming businesses and casualty insurance companies. Taxpayers may continue to elect out of the carryback and carry the loss forward during these years. Such elections for taxable years beginning in 2018 and 2019 must be made by the due date (including extensions) for filing the taxpayer's return for the first taxable year ending after the law was enacted (March 27, 2020).

Section 2303(a) of the CARES Act temporarily increases the amount of taxable income a net operating loss carryback or carryforward can offset to 100 percent. This taxable income limit was set to 80 percent by the Tax Cuts and Jobs Act. Specifically, net operating loss carryforwards and carrybacks can offset 100 percent of taxable income in tax years arising before 2021, regardless of the year in which they arose. The 80 percent taxable income limitation, however, will be reinstated for tax years beginning after December 31, 2020.

Technical Correction for TCJA Net Operating Loss Change (§ 2303(c))

The Tax Cuts and Jobs Act provided that the changes to net operating loss carryforwards and carrybacks were effective for “taxable years *ending* after December 31, 2017.” The committee report, however, stated that the effective date for the changes would be tax years “*beginning* after December 31, 2017.” As written, fiscal year taxpayers with years ending in 2018 were subject to the new restrictions for their 2017 fiscal year, even if the majority of their tax year was in 2017. Section 2303(c) of the CARES Act corrects this error by providing that the modified carryover and carryback provisions apply to net operating losses arising in taxable years *beginning after* December 31, 2017. Impacted taxpayers have 120 days from the date of enactment to adjust their elections accordingly.

Modification of Credit for Prior Year Minimum Tax Liability for Corporations (§ 2305)

The Tax Cuts and Jobs Act repealed the corporate alternative minimum tax for taxable years beginning after Dec. 31, 2017. Corporations with AMT credits from prior taxable years could use them as refundable tax credits. The credits were to be used over tax years beginning after 2017 and before 2022. Section 2305 of the CARES Act accelerates use of these credits by allowing the full amount of the remaining refundable AMT credit to be available for the corporation’s first taxable year beginning in 2019. The corporation may also elect to use all of its AMT credits in its first taxable year beginning in 2018.

Modification of Business Loss Limits for Taxpayers other than Corporations (§ 2304)

The Tax Cuts and Jobs Act enacted an “excess business loss” rule, restricting a noncorporate business taxpayer’s loss to \$250,000 (\$500,000 in the case of a joint return). Section 2304 of the CARES Act temporarily suspends this loss limitation, allowing these taxpayers to deduct excess business losses arising in tax years 2018-2020.

Modification of Business Interest Deduction Limitation Rule (§ 2306)

The Tax Cuts and Jobs Act generally limited the deduction for business interest to 30 percent of adjusted taxable income for businesses with gross receipts in excess of \$26 million (in 2019). Section 2306 of the CARES Act temporarily and retroactively increases the business interest deduction limit from 30 percent to 50 percent for taxable years beginning in 2019 and 2020. A special rule applies to partnerships.

Technical Correction for Qualified Improvement Property (§ 2307)

The Tax Cuts and Jobs Act eliminated the separate definitions for "qualified leasehold improvement property," "qualified restaurant property" and "qualified retail improvement property," which were previously provided a statutory 15-year recovery period. It then expanded the definition of "qualified improvement property" to include "any improvement to the interior of a building if that building is nonresidential real property and such improvement is placed in service after the date such building was first placed in service." IRC 168(e)(6). Lawmakers intended to provide a 15-year MACRS recovery period for qualified improvement property." This 15-year life would mean that QIP would also qualify for bonus depreciation. This 15-year class-life provision, however, was not added to IRC § 168(e)(3)(E). As such, "qualified improvement property" remained 39-year non-residential property, not eligible for bonus depreciation.

Section 2307 of the CARES Act provides a fix to this error and modifies IRC § 168(e)(3)(E)(vii) to include "qualified improvement property" as 15-year MACRS property (20-year ADS). Qualified improvement property is thus eligible for bonus depreciation. This amendment is effective for property placed in service after December 31, 2017.

Temporary Exception from Excise Tax (§ 2308)

Section 2308 of the CARES Act waives for calendar year 2020 the federal excise tax on any distilled spirits used to produce hand sanitizers.

The Center for Agricultural Law and Taxation does not provide legal advice. Any information provided on this website is not intended to be a substitute for legal services from a competent professional. The Center's work is supported by fee-based seminars and generous private gifts. Any opinions, findings, conclusions or recommendations expressed in the material contained on this website do not necessarily reflect the views of Iowa State University.

Prepared by Jeff Stachler

Ohio State University Agriculture and Natural Resources Extension Educator, Auglaize County
stachler.1@osu.edu and 701-541-0043