Hello Northeast Ohio Counties!

Welcome to September! I’m not sure how it is possible, but this has been both the longest, and fastest summer that I have experienced.

Corn silage harvest is starting across the region, and it won’t be too much longer before we move to grain harvest. Crop reports from the area look good, and the rain last weekend was desperately needed for the beans. I hope it wasn’t too late to fill those beans.

Stay safe, and have a great week!
We Now Turn Our Attention to Autumn Harvest Season

By: Jim Noel
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2020-29/we-now-turn-our-attention-autumn-harvest-season

The cooler than normal blob of water in the eastern Pacific Ocean near the equator tends to push the first autumn freeze later than normal in our region. Therefore, there is no indication of an early freeze in September this year. It appears the first freeze for Ohio will not come until October either on schedule or a bit later than normal.

Map of Pacific Ocean

September looks to have the first half start cooler than normal followed by a return to normal temperatures for second half of the month. Precipitation will be normal or slightly above normal for September. Normal rainfall is currently 1-1.5 inches per two weeks dropping to about an inch per two weeks for the second half of September. Even though we expect rainfall at or slightly above normal in September, there is a great deal of uncertainty due to the tropics and where those systems will travel. So you will want to pay attention to later outlooks at: https://www.cpc.ncep.noaa.gov
Rainfall for the first half of September will average 0.50-2.00 inches. The heaviest rains will likely surround the state of Ohio in most directions. See attached image.

16 day precipitation outlook

October into part of November looks to resume the above normal temperatures which should create an extended autumn this year. Rainfall remains highly uncertain but it appears near normal is the most likely outcome for October and November as we have some climate models showing above normal and some below normal rainfall.

The early outlook for winter calls for above normal temperatures first half and below normal temperatures second half. Precipitation is likely to become above normal with potential influences from the tropical Pacific Ocean.
**Estimating 2019 Ohio Agricultural Risk Coverage and Price Loss Coverage County Level Payment Rates**

By Ben Brown  

Agricultural producers across the United States are periodically allowed to enroll in federal commodity programs offered through the Federal Government. These programs contribute to a public safety net protecting against variations in year to year revenue due to reductions in production, price or both. Since the 1930s, Congress has authorized a federal Farm Bill every 5-7 years providing a variety of programs to producers, agribusinesses, landowners, and consumers. Economic conditions, producer preferences, world integration, and political appetite have influenced the federal safety net over the last 90 years causing introduction, implementation, and in some cases repeal of programs. The current suite of Title 1. commodity programs authorized in The Agricultural Adjustment Act of 2018 (2018 Farm Bill) includes: two revenue protection programs for row crop producers through Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) programs, Marketing Assistance Loans (MAL), and programs for dairy and sugar producers. In some cases an election must be made between programs to complete enrollment. This article estimates county based ARC and PLC payments for enrolled Ohio producers for the 2019 program year, which ends September 30, 2020. In the case payments are triggered, distribution to producers will happen later in 2020 calendar year.

**Introduction**

Enrollment dates for federal commodity programs depend on specifics in the implementing documents, but regularly occur every fiscal year. Election into programs does not have to match enrollment. For instance, the 2018 Farm Bill allowed producers one election period between ARC and PLC for 2019 and 2020 program years combined (September 1, 2019- March 15, 2020), but had two separate enrollment periods (program year 2019: September 1, 2019- March 15, 2020 and program year 2020: October 1, 2019- June 30, 2020). For 2021, 2022 and 2023 program years, enrollment and election periods will happen simultaneously (October 1- March 15). Producers will also be allowed to adjust their elections between ARC and PLC starting in the 2021 program year (October 1, 2020- March 15, 2021.) Payments are calculated and distributed at the conclusion of the program year.

The ARC program provides shallow loss revenue protection using yields and national Marketing Year Average (MYA) prices to calculate a historical revenue benchmark. Payments are triggered when the product of current year yields and the commodity specific national MYA price falls below 86% of the historical benchmark. Producers have the option between two versions of ARC: ARC-Individual (ARC-IC) and ARC-
County (ARC-CO). Yields provided by individual Farm Service Agency (FSA) farm numbers are used for ARC-IC; whereas, county area yields are used for ARC-CO. The PLC program is a shallow loss protection program using an nationwide effective reference price per commodity as the benchmark. PLC payments trigger when the national MYA price falls below the effective reference price. More information about ARC and PLC program mechanics can be found in *The Ohio State Univiersity’s Guide to the 2018 Farm Bill Commodity Programs* (Brown, Griffith, and Zoller, 2019).

Data and Methodology
The payment rates presented in this article are estimates calculated by the author as of the published date. Official ARC-CO and PLC payment rates are released by FSA typically in October of the following year. Payments to FSA farmer numbers enrolled in ARC-IC are individual to the farm and cannot be estimated on a county-wide basis. Noteworthy, the 2018 Farm Bill blends ARC-CO yields across county lines based on share of acres enrolled by that FSA Farm in each county.

Yields
Historical yields (2013-2017) for ARC-CO are provided by FSA. The 2019 program year is the first-year historical yields were trend adjusted, as the 2014 Farm Bill used reported yields in the historical benchmark calculation. County yields used in this article for ARC-CO are author calculations using 2019 Risk Management Association (RMA) area yields weighted by irrigation practice. A previous article explains these yield estimates (Brown, 2020). County yields may differ from these estimates, as FSA reserves the right to adjust ARC-CO yields.

For the PLC program, the national payment rate per bushel is multiplied by the individual FSA farm yield on file. Producers have the option to update their FSA farm yields by commodity for program year 2020 and any future years or programs using these values up to September 30, 2020. More information on PLC Yield Updates can be found in the OSU Farm Bill Handbook. For program year 2019, PLC yields match FSA farm yields used under the 2014 Farm Bill.

National Prices
National MYA prices are not official for the 2019/20 marketing year for all commodities. Wheat has a marketing year that runs June 1- May 31, whereas corn and soybean have marketing years that run September 1- August 31. National MYA prices are calculated by multiplying the monthly commodity price received by producers and the percent of the crop estimated to have been marketed that month. The national MYA is often higher than producer prices in areas with relatively weak basis values and lower than producer prices in areas with relatively strong basis values. The estimated MYA prices used in this report are calculated by using National Agriculture Statistics Service reported prices for months available: June through May on Wheat and September through June for corn and soybeans. Futures prices with a national average basis adjustment are used for
July and August in the case of corn and soybeans. All months are then multiplied by a 5-year average marketing weight. The estimated national MYA prices used for ARC and PLC are included in Table 1.

The 2018 Farm Bill created commodity specific effective reference prices building on the reference prices congressionally set in the 2014 Farm Bill. Effective reference prices for program year 2019 are included in Table 1.

Table 1. 2019 Effective Reference Prices and Estimated 2019-20 Market Year Average Prices

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2018 Statutory Reference Price ($/bu.)</th>
<th>2019 Effective Reference Price ($/bu.)</th>
<th>2019/20 Market Year Average Price ($/bu.)</th>
<th>PLC Payment Rate ($/bu.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>$3.70/bu.</td>
<td>$3.70/bu.</td>
<td>$3.58/bu.</td>
<td>$0.12/bu.</td>
</tr>
<tr>
<td>Soybeans</td>
<td>$8.40/bu.</td>
<td>$8.40/bu.</td>
<td>$8.60/bu.</td>
<td>$0.00/bu.</td>
</tr>
<tr>
<td>Wheat</td>
<td>$5.50/bu.</td>
<td>$5.50/bu.</td>
<td>$4.61/bu.</td>
<td>$0.89/bu.</td>
</tr>
</tbody>
</table>

2019 Corn ARC-CO and PLC Estimates

Figures 1, 2, 3, and 4 illustrate estimated corn ARC-CO and PLC payment rates per county. The payment rates listed have been adjusted to pay out on 100% of a producer’s eligible base acres. Without the adjustment, producers would need to multiply their eligible base acres by 85%. Payments have also been reduced by an anticipated government sequestration of 6.8%.

Illustrated in Figure 1 are the rates for Ohio ARC-CO corn payments for those counties with no separation in irrigation practices. As mentioned earlier, some counties have both an irrigated and nonirrigated ARC-CO program. Four Ohio counties have both an irrigated and nonirrigated corn program: Champaign, Pickaway, Ross, and Williams. The payment rates for these counties by irrigated and nonirrigated yields are illustrated in Figures 2 and 3, respectively. Thirty Ohio counties are expected to trigger ARC-CO corn payments with an average payment of $33/eligible corn base acre with a range of $0-$66 per acre.

Ohio corn PLC estimated rates per county are illustrated in Figure 4. As a reminder PLC rates are sensitive to the MYA price as every $0.05 per bushel change in the MYA price translates to $8-$10 per acre. PLC rates are multiplied by the FSA farm yield instead of...
the county average yield used by the author. County average yields are meant to represent all farms in a county but will be low for some farm numbers and higher for others. With an estimated $0.12 per bushel payment triggered across the country, most Ohio producers should see a payment between $8-$13 per acre payments, a much smaller range in payments compared to ARC-CO. Ohio corn participation rates between ARC and PLC are not known, but 76% of producers nationwide elected PLC for program year 2019. University decision tools ubiquitously forecasted large 2020 program year PLC payments with few expecting 2019 program year payments. Reduction in ethanol production due to COVID-19 lowered the 2019/20 MYA price and increased the probability of PLC payments.

2019 Soybean ARC-CO and PLC Estimates Figures 5, 6, 7, and 8 illustrate estimated soybean ARC-CO and PLC payment rates per county. Like corn, payments have been adjusted to apply on 100% of base acres and a 6.8% sequestration. Illustrated in Figure 5 are the rates for Ohio ARC-CO soybean payments for those counties with no separation in irrigation practices. Eleven Ohio counties have both an irrigated and nonirrigated soybean program: Allen, Auglaize, Champaign, Hardin, Putnam, Seneca, Shelby, Union, Ver Wert, Williams, and Wyandot, represented in grey. The payment rates for these counties by irrigated and nonirrigated yields are illustrated in Figures 6 and 7, respectively. Fifty Ohio counties are expected to trigger ARC-CO soybean payments. Of those counties triggering payments, the average payment is $26/eligible base acre with a range of $0-$48. Three counties (Belmont, Monroe and Noble) did not have sufficient yield data or base acres enrolled in ARC-CO.
It is not likely soybeans will trigger a PLC payment in program year 2019. With an effective reference price of $8.40, the current forecasted MYA price of $8.60 is $0.20 above the required threshold. This will not be surprising to many producers as 14% of soybean base acres were enrolled in PLC, whereas 86% were enrolled in either ARC-CO or ARC-IC. During the Farm Bill election period, university decision tools did not forecast PLC payments in 2019 and only a small change of payments for program year 2020. Anecdotally, producers expressed a greater likelihood their county yields would come in lower than the historical benchmark for ARC-CO compared to the MYA falling below the effective reference price.

2019 Wheat ARC-CO and PLC Estimates

Figures 9 and 10 illustrate estimated wheat ARC-CO and PLC payment rates per county, respectively. Like corn and soybeans, payments have been adjusted to apply on 100% of base acres and a 6.8% sequestration. Illustrated in Figure 9 are the rates for Ohio ARC-CO wheat payments. There are no Ohio counties that have both an irrigated and nonirrigated ARC-CO wheat program. County yields are weighted based on the share of irrigated and nonirrigated insured acres to create a yield for all practices. Seventy-three Ohio counties are expected to trigger ARC-CO wheat payments. Of those counties triggering payments, the average payment is $32/eligible base acre with a range of $0-$40. Twelve Ohio counties (represented in black) have missing yield data or do not have enrolled base acres of wheat for program year 2020.

Figure 10 illustrates the estimated wheat PLC county payment rates. Given that the marketing year for wheat has concluded, it is all but certain the national MYA wheat price will fall below the effective reference price of $5.50 per bushel. The estimates used in this report estimate a national MYA price of $4.61/bushel while the World Agricultural Outlook Board in the August World Agricultural Supply and Demand
Estimates forecast a MYA price of $4.58 per bushel. A $0.03 per bushel difference amounts to roughly a $1.60 per acre payment difference. The estimates for wheat payments between ARC-CO and PLC are similar in size. University decision aides forecasted a large PLC payment for program year 2019 and potentially for program year 2020. While there was the possibility wheat would trigger ARC-CO payments it was not as large as the probability for PLC. Nationwide 93% of producer chose PLC for eligible wheat base acres vs 7% for ARC.

Conclusion
This article estimates county level Agricultural Risk Coverage and Price Loss Coverage payment rates for program year 2019, which are expected to be announced by the Farm Service Agency later in calendar year 2020. These estimates are calculated using Risk Management Agency area yields and forecasted market year average prices in August of 2020.

Yields and prices may differ from these assumptions, but these estimates should provide producers with an idea of cash flow from 2018 Farm Bill authorized programs. Farms with acres in multiple counties will have a blended ARC-CO yield for all enrolled acres within a specific commodity and FSA farm number. The entire data file with historical benchmarks is posted at go.osu.edu/farmbill2019

National participation rates show producers favored PLC for corn and wheat, but ARC for soybean base acres.

County corn payments are higher for ARC-CO than PLC, but not all counties are expected to trigger an ARC-CO payment. For program year 2019, all county units are expected to trigger a PLC payment while thirty county units out of ninety-three are expected to trigger ARC-CO payments.

No county unit is expected to trigger a PLC soybean payment while fifty out of one hundred are expected to trigger ARC-CO payments.

Wheat payment frequency and size are approximately the same between ARC-CO and PLC, but the majority of wheat base acres are enrolled in PLC.
As a reminder, enrollment for the 2021 program year starts October 1, 2020 and ends March 15, 2020.

Making Corn Silage in Dry Conditions

By Bill Weiss
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2020-28/making-corn-silage-dry-conditions

The primary goal of making corn silage is to preserve as many nutrients in the corn plant as possible, to produce a feed that is acceptable to cows, and to minimize any risks associated with feeding the silage. The following are important considerations for making corn silage when growing conditions have been dry.

Chop at the correct dry matter concentration. Drought-stressed corn plants are often much wetter than they appear, even if the lower plant leaves are brown and dried up. Before starting chopping, sample some plants (cut at the same height as they will be with the harvester) and either analyze DM using a Koster tester or microwave or send to a commercial lab (turn-around time may be a few days if you send it to a lab). If the plants are too wet, delay chopping until the desired plant DM is reached. The plant may continue to accumulate DM (increase yield), and
you will not suffer increased fermentation losses caused by ensiling corn that is too wet.

**Use a proven inoculant.** When silage is worth upwards of $80/ton (35% DM) reducing shrink by 2 percentage units has a value of about $2/ton. Homolactic inoculants (these are the ‘standard silage inoculants’) produce lactic acid which reduces fermentation losses but sometimes can increase spoilage during feedout. The buchneri inoculants increase acetic acid which slightly increases fermentation losses but greatly reduce spoilage during feedout. Severely drought-stressed corn can have a high concentration of sugars because the plant is not depositing starch into the kernels. High sugar concentrations can increase spoilage at feed out because it is food source for yeasts and molds. Use of a good (from a reputable company with research showing efficacy) buchneri inoculant may be especially cost-effective with drought-stressed corn.

**Check for nitrates.** Drought-stressed corn plants can accumulate nitrates which are toxic (as in fatal) to ruminants. Silage from drought-stressed fields should be tested before it is fed. Ideally, corn plants should be sampled and assayed for nitrates prior to chopping (most labs offer very rapid turn-around times for a nitrate assay). If values are high, raising the cutting height will reduce nitrate concentrations in the silage because the bottom of the stalk usually has the highest nitrate concentrations. Because forage likely will be very limited this coming year, do not raise the cutting height unless necessary to reduce nitrate concentrations. Nitrate concentrations are often reduced during silage fermentation so that high nitrates in fresh corn plants may end up as acceptable concentrations in the fermented corn silage. Silage with more than 1.5% nitrate (0.35% nitrate-N) has a high risk of causing nitrate toxicity in cattle. See the following University of Wisconsin-Extension fact sheet for more details on nitrate toxicity: [https://fyi.extension.wisc.edu/forage/nitrate-poisoning-in-cattle-sheep-and-goats/](https://fyi.extension.wisc.edu/forage/nitrate-poisoning-in-cattle-sheep-and-goats/)
**Chop at correct particle length.** Do not chop too finely so that the effective fiber concentration of corn silage is reduced. If the corn plants have limited ear development, fine chopping is not needed for good starch digestibility. Generally, a theoretical length of cut (TLC) of about ½ inch is acceptable (longer with kernel processing and BMR silage) but this varies greatly between choppers and crop moisture concentration. If using a Penn State particle size sieve, aim for 5 to 10% on the top screen.

**Use a kernel processor.** Kernel processed corn silage tends to pack more densely than unprocessed corn silage which may help increase aerobic stability. Kernel processing will also increase starch digestibility by breaking the kernel. Poor starch digestibility is a major problem with dry, mature corn silage. Reduce Shrink. Fill quickly, pack adequately, cover, and seal the silo as soon as you are done filling. Practicing good silage-making techniques can reduce shrink by more than 5 percentage units, which can be worth more than $4/ton of corn silage (35% DM).

**GETTING TO THE ROOT OF THE PROBLEM**

By Kaine Korzekwa  

Roots play a vital role in crop plants. They take up water and nutrients for the plant and keep it help firmly in the ground. But not all roots are the same.

Different plants have different kinds of roots that help them survive in their environment. Two well-known examples are carrots and cactus. Carrots have a long taproot that penetrates deep into the soil. Cacti usually have shallow roots. These allow them to quickly soak up the little rainfall they receive in the desert.
Can studying roots lead to better crops? It's a question that researchers from Pennsylvania State University set out to answer, focusing on beans. They know that crops like beans are critical for feeding a rapidly growing population.

"Grain legumes are critical for global food security, but achieve low yields in most areas," says Jonathan P. Lynch, a professor at Pennsylvania State University. "This is especially true in areas of the developing world that experience drought, heat, and low soil fertility."

Breeding is a way to improve how crops perform in different environments. However, looking at the roots for beneficial characteristics for breeding is rarely done.

"Optimizing how plants get resources from the soil in stressful environments is important for increasing food production, but specific breeding objectives are ill defined," Lynch says. "We sought to test hypotheses about the link between root system architecture and life strategy in order to generate breeding targets.

In their study, they analyzed the root systems of several kinds of beans and other legumes, like chickpeas. This allowed them to see tradeoffs and to determine what kind of root characteristics would perform better in certain environments. This can help plant breeders devise better plants.

Roots explore both the topsoil and subsoil. Nutrients like phosphorus and potassium are more present in the topsoil, while water and nitrogen are usually deeper in the soil. They observed that many crops focus on one or the other of these soil layers, which results in a tradeoff.

"Root architecture is an important component of crop adaptation to environments where water and nutrients are lacking," Lynch says. "We suggest that root phenotypes capable of balancing topsoil and subsoil exploration would be useful."

The researchers say that breeding programs could use trait-based selection on root characteristics they are interested in. They could then use various techniques to get well-adapted plants with stronger primary roots or longer root hairs, for example.

“Everyone knows that roots are important for crops, especially in poor soils and in dry conditions,” Lynch adds. “However, very few crop breeders actively select for these root
characteristics because it can be difficult. This paper is one of a growing number by our team and others showing how specific root characteristics are associated with crop resilience under stress.”

Lynch says his personal goal is to improve food security in developing nations. 850 million people are chronically malnourished around the world and with the human population expanding, the problem will only increase.

Grain legumes have the potential to help address this problem because they are good for the soil and for humans. They take nitrogen from the air and make it usable in the soil and are rich in nutrients humans need like protein, iron, and zinc.

“It is important for us all to recognize the magnitude of the challenge represented by assuring food security for 10 billion people in a degraded global environment,” Lynch says. “We must do what we can to help the next generation of agricultural scientists meet this challenge.”

Read more about this research in Crop Science, a publication of the Crop Science Society of America. This work was supported by the Howard G. Buffet Foundation, the United States Agency for International Development, and the U.S. Department of Agriculture’s National Institute of Food and Agriculture.

**Keeping Agritourism Employees Healthy this Season**

By: Dee Jepsen, Lisa Pfeifer, Eric Barrett, Rob Leeds, Peggy Hall & Brad Bergefurd

Source: [https://u.osu.edu/ohioagmanager/2020/08/31/keeping-agritourism-employees-healthy-this-season/](https://u.osu.edu/ohioagmanager/2020/08/31/keeping-agritourism-employees-healthy-this-season/)

Agritourism operations need to go above and beyond to plan for safe operations of their farms during the COVID-19 pandemic. The public is looking forward to participating in traditional autumn activities, especially when they know health practices are being followed by the venue.

Employees are a critical piece to any business. When key employees are ‘out sick’, the agritourism activities may be affected or not offered at all. Employers will want to safeguard their small staff during the pandemic to ensure they are providing the necessary protection for their staff, as well as their agritourism guests.

**Worker safety starts with good workplace practices.**
Start with the basics. All staff should practice the CDC guidelines of washing hands, wearing masks, keeping six feet physical distance, and staying home when sick. Additional precautions include:

- Provide alcohol-based hand sanitizer for remote locations.
- Discourage workers from using other workers’ phones, desks, offices, or other work tools and equipment, when possible.
- Use disposable paper towels. There should be no shared towels, including shop rags.
- Discourage sharing of any food or beverages.
- Establish protocols for sanitizing common gathering places like the shop, lunch areas, and offices spaces. Cleaning and disinfecting high touch areas, like door handles, phones, 2-way radios, keyboards, light switches, monitors/touchpads, faucets/sinks, and restroom areas.
- Avoid ride sharing in company vehicles, when possible.

**Schedule employees to work in teams.**

Employers should look at the functions of the total operation. Creating workforce teams or 'pods' can help ensure an operation minimizes the impacts should a worker become ill or test positive for the coronavirus. Try to schedule these employees to work together without co-mingling the pods. This will reduce the risk of quarantining the entire workforce, in the event someone within a pod becomes ill or tests positive for the coronavirus.

Levels of risk will differ with different job descriptions. By thinking in advance, it will be possible to make appropriate plans for employee work shifts and have protective mechanisms in place for high exposure areas.

- Group employees according to their contact with the general public, on-site service providers, or other co-workers. Manage employee schedules without overlapping work crews who work in the different areas of the operation. For example, keep the pick-your-own field staff in separate teams from the employees who handle checkout and re-stocking at the store.
- You may also consider grouping employees based on their demographics or their personal environments. Do some of your employees face high exposure risks at home because of a spouse’s work setting? Is it possible to group younger workforces together to minimize exposure to senior workers, or workers who are caregivers to elderly or susceptible family members?

**Establish an employee health reporting system**
Create a plan for how daily health checks and reporting illness will be handled. Discuss these procedures with employees. Workers that are experiencing COVID symptoms may be contagious. Follow your local health department requirements by asking sick employees to stay home or self-quarantine from the rest of the farm workforce.

- Create a health screening assessment questionnaire and have employees take their temperature before reporting to work. Ask employees to stay home if they have any symptoms or temperature over 100.4°F.
- Encourage employees to reduce out-of-state travel, participation in mass-group events (weddings, funerals, graduations, etc.), and practice recommendations from state for social distancing in their off-work environments.
- Send sick employees to get tested as soon as possible to minimize the ‘wait period’ for test results. Treat employees who are feeling sick or waiting for test results the same, and assume they are positive for coronavirus.

**Prepare a business continuity plan.**
Have a plan in place to accommodate a reduction in workforce. If employees are not available to work, identify which activities will be closed or managed differently. When management is not available to work, have a contingency plan for keeping the operation open.

- Are employees cross-trained to do handle additional tasks?
- Are keys available to barns and gates and equipment?
- Do employees have access to the all needed information, like passwords to important accounts?

**OSU Extension Bulletin Forthcoming**
OSU Extension has prepared a guidance bulletin to help farms develop their plans. The guide is based on publications from the state of Ohio, the CDC and others. The guide is in the final stage of the approval process and will be available in the coming days. This guide can be used to develop opening plans or update existing plans for agritourism operations.

**Hemp Report Comparing States Released**
By: Ellen Essman, J.D.
Source: https://farmoffice.osu.edu/news/hemp-report-comparing-states-released

Our newest report for the National Agricultural Law Center examines the different approaches states are taking to regulate hemp under the 2018 Farm
Innovative State Approaches to Hemp Regulations under the 2018 Farm Bill is available here.

Over the last few years, the agricultural sector has been buzzing with excitement about the potential of a new crop—industrial hemp. For years, hemp was increasingly regulated across the country because it was legally classified the same as marijuana, another type of cannabis.

In 1970, the Controlled Substances Act completely illegalized hemp production. This criminalized approach to hemp changed with the 2018 Farm Bill, however, which removed hemp from the definition of “marijuana” and gave states a chance to create their own hemp regulation programs. Many states seized the opportunity. As of May 5, 2020, the United States Department of Agriculture (USDA) had approved hemp plans from 16 states: Delaware, Florida, Georgia, Iowa, Kansas, Louisiana, Montana, Nebraska, New Jersey, Ohio, Pennsylvania, South Carolina, Texas, Washington, West Virginia, and Wyoming.

In this white paper, we examine the requirements for state hemp programs prescribed by the 2018 Farm Bill. Even within these “requirements,” there is room for states to innovate. We’ll take a look at how they’ve done so as we summarize the unique aspects of state hemp programs that go beyond the USDA’s minimum requirements. There are many creative approaches that states are taking in regulating hemp production. We will touch on some of these notable approaches and highlight the similarities and differences among the approved state hemp regulatory programs.

The USDA’s National Agriculture Library funded our research on this project, which we conducted in partnership with the National Agricultural Law Center.

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