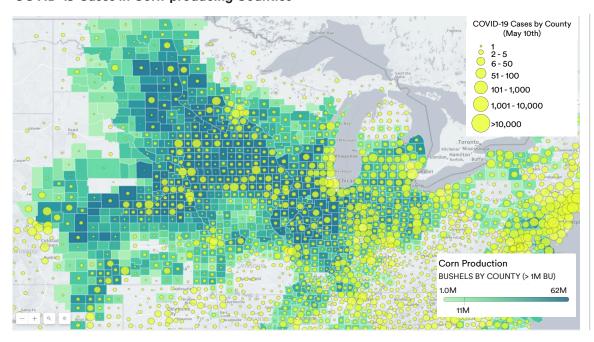
Special Report #5: COVID-19 in the Corn Belt

May 12, 2020

In spite of its increasing prevalence, COVID appears to be having no effect on planting progress, as corn and soy are both well ahead of recent averages. As of May 10th, 96% of the 1,300 corn-producing counties¹ has at least 1 confirmed case of COVID-19. This is an increase of only 5% since the previous report on April 28th. These counties have at least one 258 cases and 12.2 deaths per 100,000². If the Corn Belt were a state, it would rank 22nd.

COVID-19 Cases in Corn-producing Counties



Farming in COVID-19 affected counties

3.2 million producers (96%)



18.1 billion bushels corn and soy (95%)



2020 planting progress³

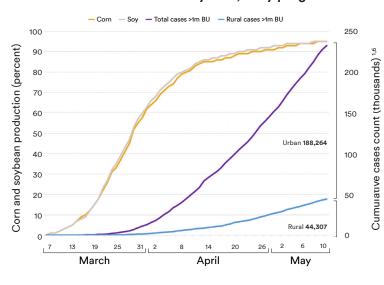
Ahead as of May 11th

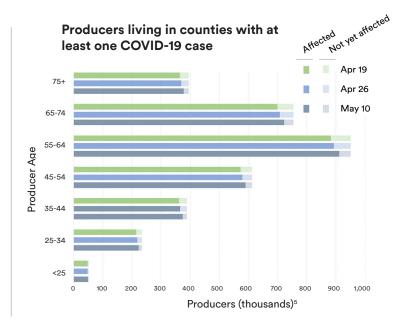
_	2020	5 yr avg
Corn	67%	56%
Soybean	38%	23%

Tracking changes in COVID-19 in the Corn Belt

The presence of COVID-19 cases in corn and soy-producing counties has reached saturation levels – 95% of corn and soybean counties have a case. There are now more than 232k cases in counties with 1 million or more bushels of corn production, and of those, 19% are in rural places and 81% are in counties considered urban. Once again this is an uptick in the rural share from 2 weeks ago.

COVID-19 and the US food system, daily progression



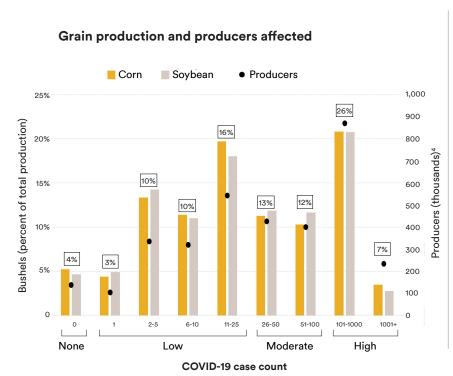


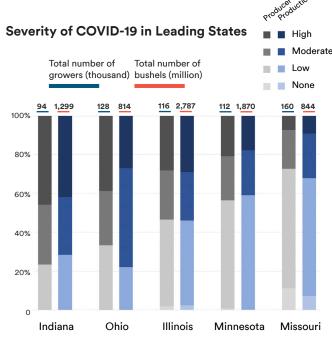


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Since the April 28th report, the fraction of US corn and soy production in places with high to moderate case rates has continued to increase. Today, 39% of production (bushels) and are in moderate to high case-rate counties.⁵ Indiana continues to have the highest proportion of production and producers in moderate to high case-load counties; Ohio now has similar levels.





Methodology

This is the fifth in a now bi-weekly series of special coverage on the impact of coronavirus in farming communities. For more information or to share ideas for future topics please contact Indigo at covidmap@indigoag.com. This geospatial analysis was conducted at the scale of US counties, with the entire US production system in view. There is a two day lag in the COVID-19 case record used in this analysis due to lags in the most reliable available source data. Tracking presence or absence of COVID-19 at a county scale matters: recent research shows that even 1 reported case boosts the likelihood of an undetected outbreak to 51% from a background risk of 9% for counties with no cases. Sources:

- ¹ "High-intensity corn-producing counties are defined as places with 1m bushels or more corn produced according to the 2017 Census of Agriculture (USDA NASS; www.nass.usda.gov/AgCensus)
- ² For COVID-19 prevalence, the team relied on the NYT COVID-19 dataset which is updated daily and based on "state and local health agencies, hospitals, and the CDC." NYT cautions that data represents "number of people there who have tested positive, which may differ from where they contracted the illness. (https://www.nytimes.com/article/coronavirus-county-data-us.html)
- ³ USDA Crop Progress Report, National Agricultural Statistics Service (NASS). Released May 10th. Available at: (https://downloads.usda. library.cornell.edu/usda-esmis/files/8336h188j/2227n944k/9s161s44t/prog2020.pdf)
- ⁴ Data on producers comes from the 2017 Census of Agriculture (USDA NASS), which defines a producer as "all persons involved in farm operations and agricultural production" and people who identify as "someone involved in making decisions for the farm."
- ⁵ We define moderate case counts as 26-100 cases and high as 100 or more cases per county
- ⁶ Urban and rural distinctions made via the 2013 USDA ERS Rural-Urban Continuum Codes (https://www.ers.usda.gov/data-products/rural- urban-continuum-codes.aspx)
- ⁷ "Probability of current COVID-19 outbreaks in all US counties", Emily Javan, Dr. Spencer J. Fox, Dr. Lauren Ancel Meyers. Available at: (https://cid.utexas.edu/sites/default/files/cid/files/covid-risk-maps_counties_4.3.2020.pdf)





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