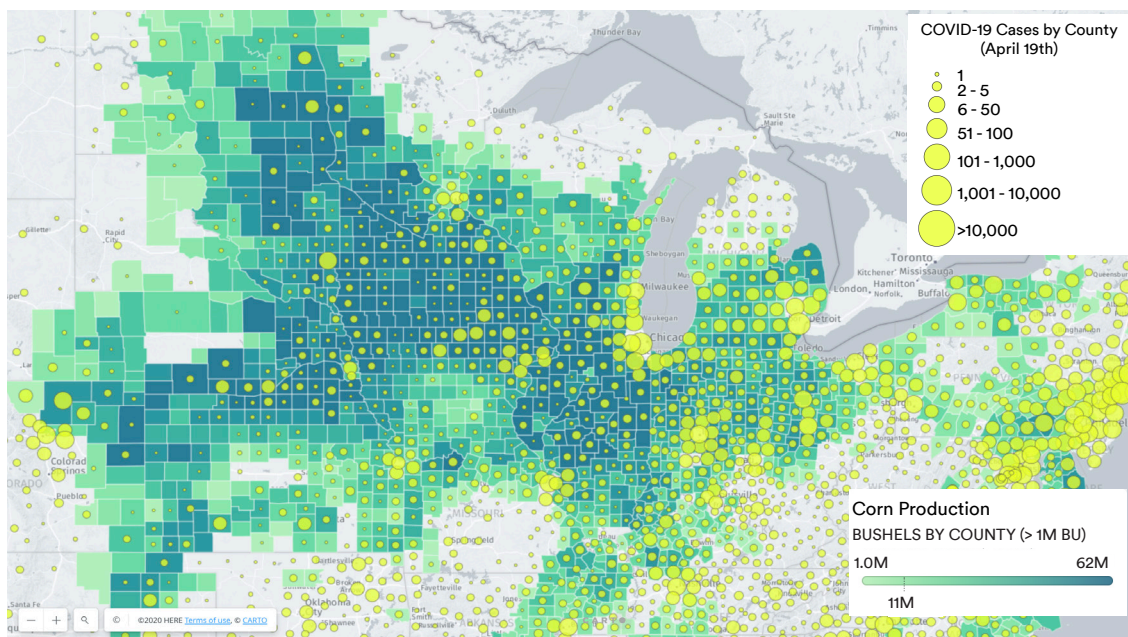


As of April 19th, the 1,300 US corn-producing counties<sup>1</sup> have a combined COVID-19 incidence of 110.3 cases and 4.7 deaths per 100,000<sup>2</sup>; increases of 50% and 80%, respectively, in the week since our last report. That case rate places the Corn Belt region slightly higher than the US median with 22 States at higher case rates. Indiana continues to have the highest proportion of production and producers in moderate to high case-load counties (43%, 51%), and Illinois remains second among the big grain producing states (34%, 35%).

## COVID-19 Cases in Corn-producing Counties



### Farming in COVID-19 affected counties

**3.2 million** producers (93%)

**16.9 billion** bushels corn and soy (89%)

### 2020 planting progress<sup>7</sup>

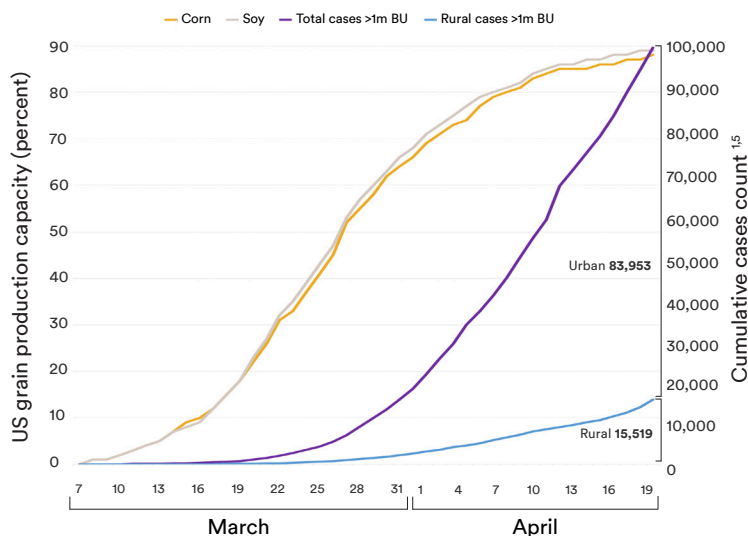
On track as of April 20th

|         | 2020 | 5 yr avg |
|---------|------|----------|
| Corn    | 7%   | 9%       |
| Soybean | 2%   | 1%       |

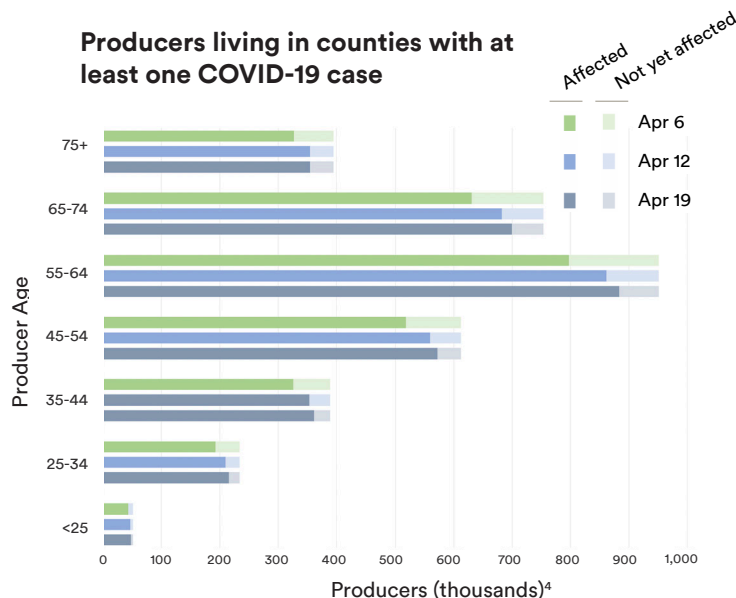
## Tracking changes in COVID-19 in the Corn Belt

From April 4th to 19th, the share of grains located in a county with at least one COVID-19 case has increased from 73% to 88% (corn) and from 75% to 89% (soy). There are now 99.5k cases in counties with 1 million or more bushels of corn production, and of those, 15.6% are in rural places and 84.4% are in counties considered urban. Over the same period, the share of producers in these COVID-19 affected counties has gone from 84% to 93%; of those, the proportion 65 and older is 38%.

### COVID-19 and the US food system, daily progression

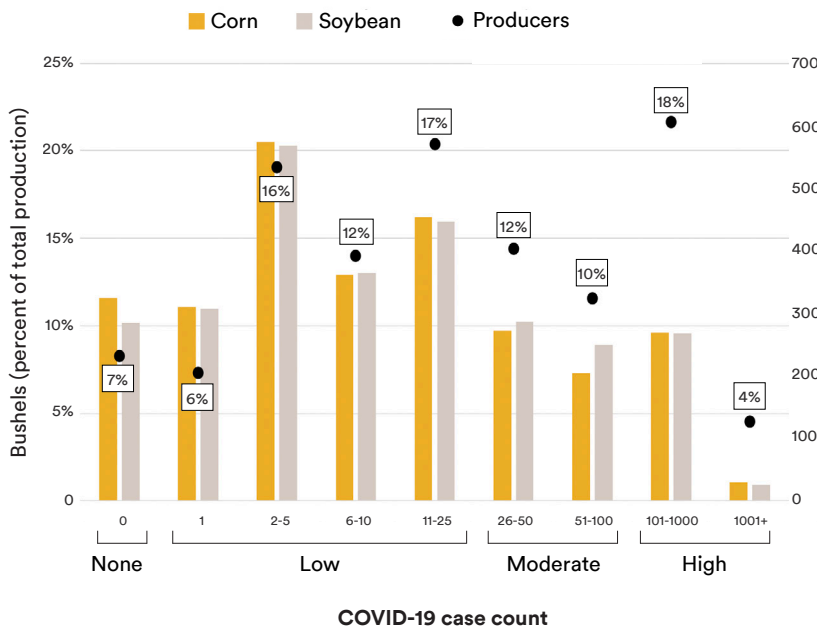


### Producers living in counties with at least one COVID-19 case

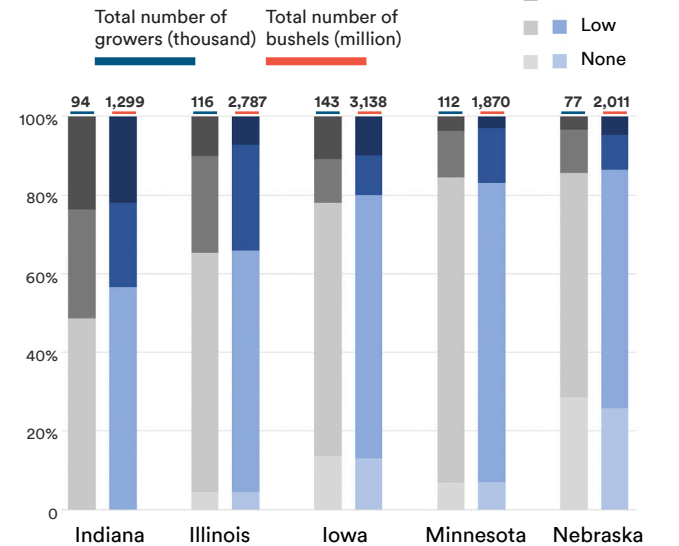


Since last week's report, the fraction of US corn and soy production in places with 0-5 cases has declined in favor of places with 11 or more cases. Today, an average of 29% of production (bushels) and 43% of producers are in moderate to high case-rate counties.<sup>1</sup> Indiana is now the first key grain producing state with more than 50% of production in that high to moderate case-rate category.

## Grain production producers affected



## Production and Producers vs. COVID-19 rates for top grain-producing states



## Methodology

This is the third in a new 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](mailto:covidmap@indigoag.com). This geospatial analysis was conducted at the scale of US counties, with all of the 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.<sup>5</sup>

### Sources:

<sup>1</sup> "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](http://www.nass.usda.gov/AgCensus))

<sup>2</sup> 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>)

<sup>3</sup> 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."

<sup>4</sup> We define moderate case counts as 26-100 cases and high as 100 or more cases per county

<sup>5</sup> 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>)

<sup>6</sup> "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](https://cid.utexas.edu/sites/default/files/cid/files/covid-risk-maps_counties_4.3.2020.pdf))

<sup>7</sup> USDA Crop Progress Report, National Agricultural Statistics Service (NASS). Released April 20th. Available at: (<https://downloads.usda.library.cornell.edu/usda-esmis/files/8336h188j/ng452348v/pg15c017h/prog1720.pdf>)

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