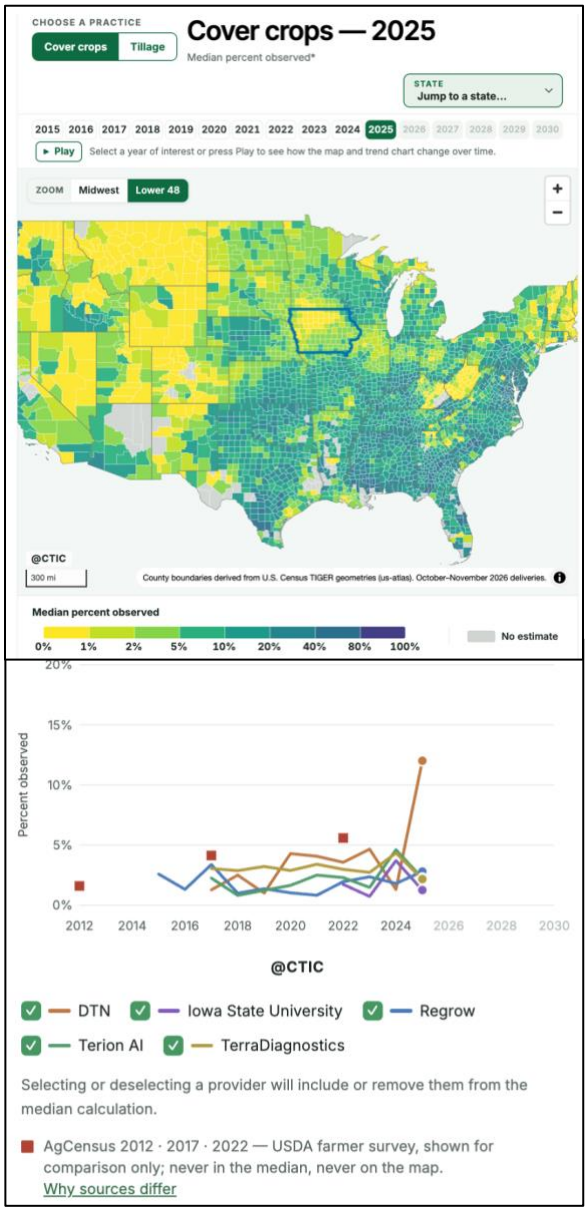



# Viridis View Data Viewer 1.0

## Quick Start User Guide

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The Viewer provides observations based on the analysis of publicly available satellite data by five Data Providers (DTN, Iowa State University, Regrow, Terion AI, & TerraDiagnostics) on cover crops and tillage practices (no-till, reduced till, & conventional tillage) at the county scale. Data are provided for row crops in all Lower 48 states and for the years 2015-2025, although not all Data Providers cover all states or the entire time period. The methodologies used by the Data Providers are summarized in the Methods Overview.




The Viewer is a powerful data visualization tool that employs open-source coding practices to allow users to easily explore the newly available datasets in a variety of ways. For instance, users can compare results from different Data Providers at county, multi-county, state, and multi-state geographic scales and across years. The tool also provides the ability to view the evolution of geographic patterns over time using the "play" feature. Additional features are briefly explained below.

### WHEN YOU FIRST OPEN THE VIEWER

Upon opening, the Viewer displays the observed level of **cover crops** at the national scale in 2025, and the state of Iowa has been selected, meaning that the time series chart shows results only for that state. You may add or remove states (up to eight) using the functions above the time series chart.

Counties in the map are colored by the median observed percentage for the practice chosen of the selected and available Data Providers. Data Providers may be selected or deselected in the legend below the time series chart. The map has standard zoom/pan controls. In addition, you may zoom to one specific state using the dropdown above the map. You may change the year being shown by clicking the desired year. You can also press Play to see how the map changes over time.

The time series chart has three modes: county, state, and county in state. It starts in state mode, but this will change if you click on a control button above the time series chart or when you select a county. Use shift+click to select up to eight total counties for comparison. The "county in state" mode compares the selected county to the average for that state.

When multiple states or counties are being shown in the time series chart, it will no longer show results from individual Data Providers or the AgCensus results (2012, 2017, 2022). Instead, the time series chart will show the median of the estimates from all Data Providers that have results in those years for the selected geographies.

## TILLAGE

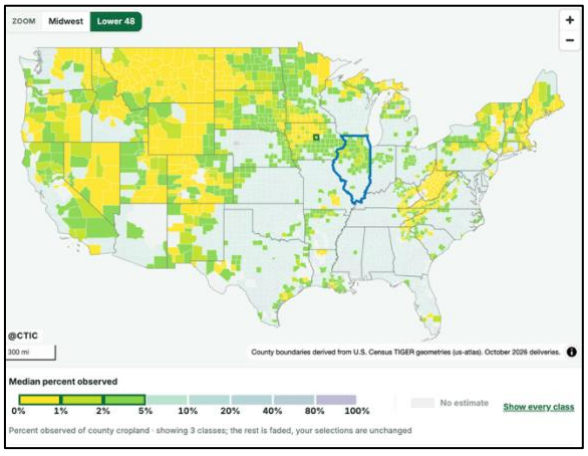
The Viewer also contains county-scale data on tillage. All the features mentioned above maintain their functionality. Simply choose tillage at the top of the screen, instead of cover crops. By default, the Viewer begins by showing results for no-till, but four other options are available. These are chosen using the control buttons above the map:

- No-till
- No-till + Red. Till
- Reduced Till
- Red. Till + Conventional
- Conventional

**Important Note**: Some Data Providers combined the reduced tillage and conventional categories into a single "tilled" (vs. no-till) category. The Viewer automatically adjusts for this, but the user should note that the reduced tillage and conventional tillage categories (when viewed separately) are based on data from fewer Data Providers.

## EXPLORE THE DATA

In addition to the features already mentioned, the Viewer provides even more functionality by clicking on the yellow "Explore the Data" button. The map now contains additional control features that appear below it. Clicking on individual entries in the legend results in coloring only those counties (as in the example at right, which colors only those counties with less than 5% observed

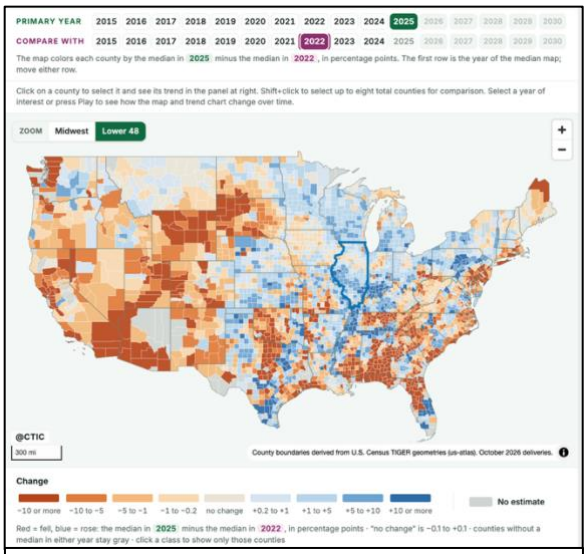


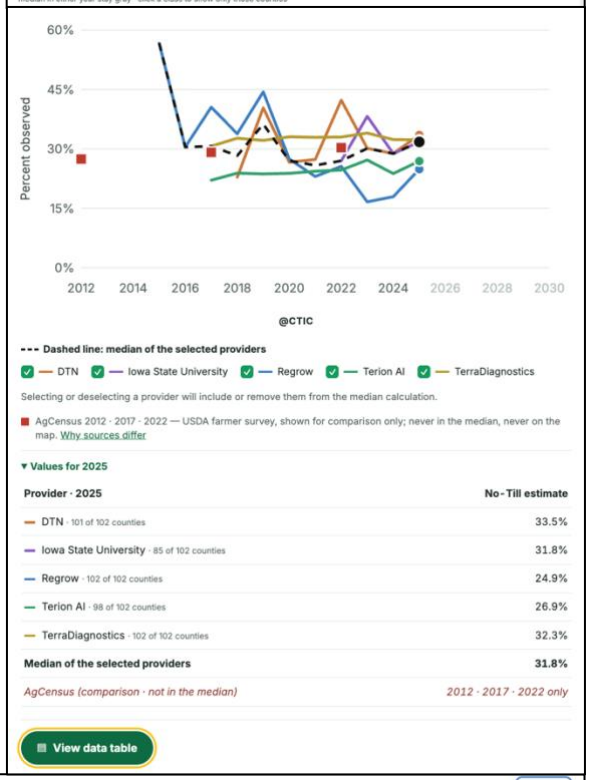
cover crops). It is also possible to have the map show the geographic extent of coverage from each of the Data Providers.

The "Change between years" is also a powerful feature to compare years. The example shown at right compares cover crop observations for the years 2022 and 2025. Counties with increased levels of observed cover crops between 2022 and 2025 are colored in deeper shades of blue – those with greatest decreases are colored with deeper shades of red.

The time series chart here also has additional features. The median among all available estimates is now shown as a dashed line amidst the results from the individual Data Providers, and a summary with additional details now also appears below the chart. This summary can be viewed as a data table, with numeric results given for all Data Providers with estimates for the selected geographies. An example of this pop-up table is shown below.

When you have finished using the "Explore the Data" page, you may return to the landing page by clicking on the "Back to landing page" yellow button (located at the upper right of the page). When toggling between the views, all user selections are retained (i.e., cover crops vs. tillage, tillage category, selected geographies, the year, etc.).




**Data table — states in the comparison** Close

Tillage · No-Till · 2025 · median of DTN, Iowa State University, Regrow, Terion AI, TerraDiagnostics · 1 state in the comparison · October 2026 deliveries

| STATE | PRACTICE | PROVIDER | IN THE MEDIAN | COUNTIES ADDED · 2025 | STATE PERCENTAGE · 2025 |
|---|---|---|---|---|---|
| Illinois | Tillage · No-Till | DTN | Yes | 101 of 102 | 33.5% |
| Illinois | Tillage · No-Till | Iowa State University | Yes | 85 of 102 | 31.8% |
| Illinois | Tillage · No-Till | Regrow | Yes | 102 of 102 | 24.9% |
| Illinois | Tillage · No-Till | Terion AI | Yes | 98 of 102 | 26.9% |
| Illinois | Tillage · No-Till | TerraDiagnostics | Yes | 102 of 102 | 32.3% |
| Illinois | Tillage · No-Till | Median of the checked providers | 5 providers | | 31.8% |

Percentages from the October 2026 files. Public numbers are percentages.