



2024 UPDATES TO THE R-SHEC TOOL

On May 30, 2024, we released an **updated version of the row crop R-SHEC Tool. Now, users can analyze a change in crop rotation in combination with other soil health practices.** To accomplish that, one of the biggest changes we needed to make is **a new format** to streamline data entry and more accurately calculate a farmer's change in net income with the adoption of a conservation crop rotation. And, we updated the associated questionnaire and guidance materials accordingly.

Some major updates include:

- Now, if a conservation crop rotation is being analyzed, we require additional information including **all** before and after field operations, instead of just the changes due to soil health practices. Thorough guidance is provided in the new user manual to guide users on what data must be provided both with and without a conservation crop rotation.
- **REFORMATTING:** With the multi-tab format, we are no longer asking for changes in machinery, fertilizer inputs, chemical inputs, yield, and erosion by soil health practice tabs (asking the same questions multiple times between the tabs), but now we are asking for this by the field operations category (so only asking the questions just once). Users now enter data, not by soil health practice, but by these tabs: machinery, cash crop inputs, cover crops, other costs & benefits, and yield.
- Machinery per acre costs and labor rate updated to 2023 values.
- Crop prices and nutrient costs updated to use a five-year rolling average value, reflecting 2019-2023 values.
- The user now has the option to enter their custom-hire rates for field operations.
- Additional crops were added, including canola, ensilage, flaxseed, millet, mustard seed, rapeseed, rye, safflower, sugar beets, sunflower seed, & triticale (grain).

Notes on the Tree Nut R-SHEC Tool:

- Since conservation crop rotation is not an included soil health practice, there was no re-formatting of this version of the Tool.
- Machinery per acre costs and labor rate updated to 2023 values.
- Crop prices and nutrient costs updated to use a five-year rolling average value, reflecting 2019-2023 values.
- Updated to include walnut and pistachio crop prices in addition to almonds, hence the new name.
-

Notes on the previous, 2022 version of the Row Crop R-SHEC Tool:

- Machinery per acre costs, labor rate, crop prices, and nutrient costs in 2021 values.
- Crops that can be analyzed are limited to: barley, corn grain, corn silage, grain sorghum (milo), soybeans, oats, wheat, and/or hay.

- Users can only analyze a Conservation Crop Rotation (CCR) as a sole soil health practice. Also, corn silage cannot be analyzed within a CCR because there is no net income data for corn silage.
- The change in net income associated with a CCR is estimated using USDA Agricultural Resource Management Survey data on commodity costs and returns. These survey data represent average costs of production across the country and are not linked to specific management systems, such as conventional tillage or no-till. Since these estimated economic effects of a change in crop rotation do not correspond to specific management systems, we do not advise combining analysis of CCR with changes in tillage, nutrient management, or cover crops practices in this previous, 2022 version of the row crop R-SHEC Tool.
- Continuing to use this 2022 version of the row crop R-SHEC Tool will be fine for analyzing the other soil health practices (*conservation crop rotation, cover crops, composting, no-till or reduced tillage, &/or nutrient management*) as long as CCR was not adopted by the farmer.