

# U.S. Rice Industry 2030 Sustainability Goals

## Background

U.S. rice production has seen improvements in six key performance indicators in the 36 years from 1980 to 2015 as measured in the Field to Market National Indicators Report. These indicators include: land use efficiency, soil loss, water use, air quality and greenhouse gas emissions, energy use, and biodiversity.

USA Rice engaged a panel of scientists and other industry experts to set reduction targets which will lead to continued improvements for each of these six environmental indicators as measured by Field to Market. Targets were developed based on the aggregate of U.S. rice production areas and in some cases per hundred pounds of rice produced. Any reporting of these goals or their progress will be reported accordingly.



## Measuring Progress

The U.S. Rice Industry Sustainability Report will be the baseline for tracking these goals. The data used in that report come from USDA and are tabulated in the Field to Market Indicators Report which is published every four years.

In addition to the Field to Market Indicator Report some other mechanisms for measuring improvements toward sustainability goals include but are not limited to:

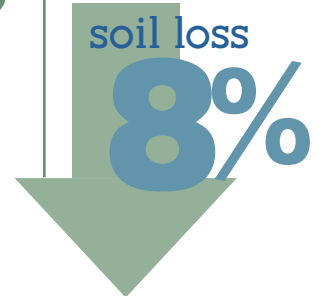
- 1 | **State-Level Yield Data:** land use efficiency, water-use and energy use are directly associated with yield. As technology allows us to continue increasing yield this will lead to improvements in these areas.
- 2 | **State Rice Specialists:** data on decreases in water use and reductions in methane emissions by using innovative irrigation practices is available through state rice specialists. These acreage estimates can be used to track reductions in water use and greenhouse gas emissions.
- 3 | **Wildlife Organizations:** tracking the increase in winter flooded acres impacts biodiversity metrics.

*Note: It is assumed that certain regions may be more successful at reaching or exceeding some goals because of production practices, climate, etc. Any evaluation relative to these goals will not compare regional performance.*



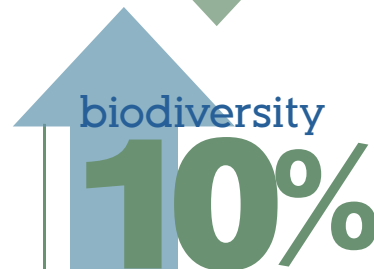
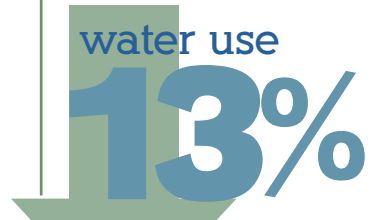
Land Use Efficiency measures how much land (in acres) is required to grow one hundred pounds of rice. As precision technology increases yields, land use efficiency will also increase.

Soils good for rice production do not erode as easily. Reductions can be achieved through land management techniques using laser and satellite technology.



Many of the new innovative irrigation methods allow the soil to dry down during the season decreasing both water use and greenhouse gas emissions.

Water is the most important resource for our industry. Innovative practices are being used and developed to improve efficiency and reduce overall water use.



Flooded rice fields provide 35% of the food resources for over half of North America's overwintering ducks and waterfowl. This is also a way to manage rice straw in a reduced-tillage system.

Multiple efficiencies will continue to reduce energy use on farms while the use of solar power and bioelectricity will continue to reduce energy use for rice mills and production facilities.

