AN INREC OVERVIEW:

Phosphorus Use + Application

Since its inception in 2015, the Iowa Nutrient Research and Education Council (INREC) has made significant strides in reducing phosphorus (P) loss from agricultural fields. This effort is part of the broader Iowa Nutrient Reduction Strategy aimed at improving water quality in Iowa and reducing nutrient runoff into the Gulf of Mexico.

KEY ACHIEVEMENTS IN PHOSPHORUS REDUCTION

Since establishing the baseline period from 1980 to 1996, phosphorus loads from Iowa farm fields have decreased by almost 30%, indicating a substantial reduction in phosphorus levels. This decline is largely attributed to the increased adoption of conservation practices such as reduced tillage and cover crops. Furthermore, Iowa has made significant strides in conservation efforts, with nine-year survey averages of nearly 29% of corn acres and 48% of soybean acres using no-till.

Phosphorus Loss Reduction Data (2017-2025)

YEAR	2017	2025
COVER CROP ACRES (Millions)	1.6	3.4
NO-TILL FOR CORN (%)	26.4	28.9
NO-TILL FOR SOYBEANS (%)	43.2	47.8

The impact of conservation practices on agriculture in Iowa is evident across several key metrics. **The nine-year average from INREC surveys shows 93.5% of phosphorus applications occur only at or below optimum soil test levels**. This precision in nutrient management not only enhances efficiency but also minimizes environmental impacts. Additionally, the increased adoption of cover crops and no-till has significantly improved soil health by reducing erosion and preserving phosphorus within the soil matrix. These efforts reflect a proactive approach to sustainable farming practices aimed at maintaining soil fertility and ecological balance in agricultural landscapes.

A key part of Iowa NREC is collaboration with organizations, agencies, and farmers within Iowa—but also outside of our state. Outside of Iowa and interested in replicating the Iowa NREC survey? Reach out! We welcome the chance to assist other states in an effort to improve water quality.

900 Des Moines Street, Des Moines, IA 50309
515.868.0201 | **iowanrec.org**

Looking for more?
Check out the process in more detail on our website.