

# Climate & Weather Data In Action

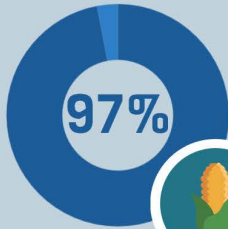


## NCEI climate and weather data is being used to strengthen America's economy

Here is how it helps corn growers increase profits while decreasing environmental impacts by optimizing nitrogen fertilizer use



the approximate number of acres of corn grown in the U.S. Roughly the same as the entire state of Montana!



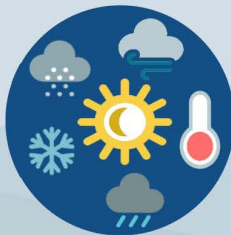
of all corn grown in the U.S. is fertilized using a commercial nitrogen fertilizer



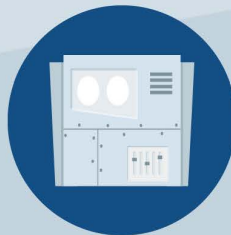
of nitrogen used to fertilize corn crops is lost due to poor management and is leached into the waterways or escapes into the atmosphere as a potent greenhouse gas



## NCEI climate and weather data powers the ADAPT-N tool to help farmers apply just the right amount of fertilizer...



NCEI climate and weather data



Crop model simulation



Nitrogen recommendations provided by Adapt-N



Nitrogen fertilizer used more efficiently

## ADAPT-N saves farmers money and helps reduce the impact on the environment...

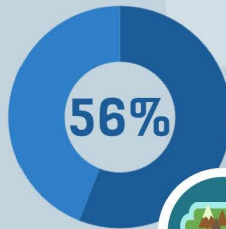
On average ADAPT-N saves farmers \$30 per acre



on average can be saved by a 1000 acre farm each year.

28% of corn production comes from farms larger than 1000 acres

Over 2 years of strip-trial testing, Adapt-N reduced fertilizer use 90% of the time



of agricultural green house gas emissions come from Nitrous Oxide. One ton of nitrous oxide is 298 times as potent as one ton of carbon dioxide

**\$2.7 Billion** could be saved if ADAPT-N was used for all corn in the U.S.

That's enough dollar bills to cover 6400 acres!



Fertilizer is the leading source of water quality degradation to U.S rivers and lakes and the second biggest to wetlands



**\$1.7 Billion**

Current annual cost of removing nitrates due to fertilizer pollution from U.S drinking water supply

