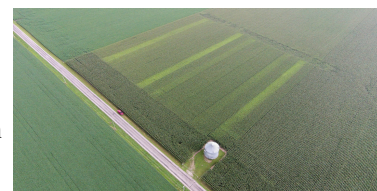


# NEW NITROGEN RECOMMENDATION FOR LAKE SPRINGFIELD WATERSHED

## UNIVERSITY OF ILLINOIS MRTN NOW INCLUDES LAKE SPRINGFIELD WATERSHED IN THE MRTN CALCULATOR

The Lake Springfield partnership between agricultural groups and City, Water, Light & Power (CWLP) has resulted in a University of Illinois nitrogen recommendation specific to this watershed.

From 2014—2016, farmers in the Lake Springfield Watershed (LSW) volunteered to conduct on-farm nitrogen rate trials in sections of their corn fields, using rates from 0 pounds of nitrogen up to 250 pounds. The University of Illinois Department of Crop Sciences established the protocols and analyzed the harvest data from the trials. Over a three year period, 22 nitrogen rate trials from the watershed and in the near vicinity of the watershed produced enough data for the UI to establish a MRTN (Maximum Return to Nitrogen) rate for this region. Since the



Illinois Nutrient Loss Reduction Strategy promotes using the MRTN as key activity to reduce nitrogen losses, the development of the LSW MRTN helps protect not just Lake Springfield, but also reduces nitrate losses to the Gulf of Mexico.

### March 2017 MRTN N rate guidelines from the N rate calculator

- Based on N price = \$0.375/lb and corn price = \$3.75/bu

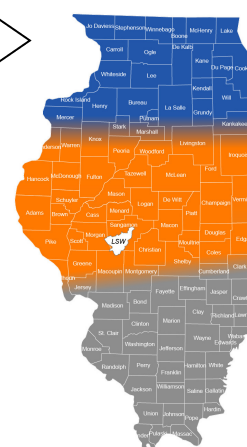
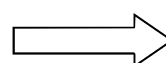
IL region	Soy-corn	Corn-corn
North	154 (81)	200 (83)
Central	172 (245)	200 (152)
LSW	166 (22)	202 (10)
South	179 (116)	189 (48)

### THE MRTN: A RELIABLE, RESPONSIBLE & DEFENSIBLE N RATE

This graph shows the comparison of the LSW MRTN to other MRTN recommendations in North, Central and Southern Illinois, based on a sample nitrogen price and corn price. The numbers in parenthesis indicate the number of sites in the database. The University of Illinois updates the MRTN regularly for all regions of the state; the MRTN uses applied nitrogen rates and yield data to predict the “best” fertilizer nitrogen rates for corn and compares the yield response to economic return, based on current nitrogen prices. The result is a recommendation of the pounds of nitrogen per acre for a farmer to use in order to assure profitability without using too much or too little nitrogen. Compared to the MRTN for the Central region, the LSW MRTN is slightly lower for corn following soybean, and slightly higher for corn following corn.

### INSTRUCTIONS FOR USING THE MRTN CALCULATOR

1. Go to <http://cnrc.agron.iastate.edu/> then click on “Maps” in the menu bar. Here are the regions for the Illinois MRTN, with LSW now designated.
2. Go to the “Calculator” feature on the site and select “Illinois” then “LSW” for the region. Enter your nitrogen and corn price and click on “calculate” to view the MRTN recommendation.



SINGLE PRICE
MULTIPLE PRICE

V. 1.8

Select State

Select Region

Set Corn and Nitrogen Prices

Anhydrous Ammonia (82% N)  (\$/Ton)  
 Nitrogen Price  (\$/lb N)  
 Corn Price  (\$/bu)

Select Rotation

A grant from the IL Council on Best Management Practices with matching funds from CWLP made this new, science based nitrogen recommendation for the watershed possible. In addition, the 3 year partnership between CBMP, CWLP and the Sangamon County SWCD has successfully kept nitrate levels in the lake manageable, with the goal of keeping the levels below 5 ppm. Nitrogen rate trials will continue in the watershed along with N-WATCH testing, with the SWCD, IL Fertilizer & Chemical Association and NREC providing continued support.

Sangamon County SWCD  
2623 Sunrise Drive, Ste 1  
Springfield, IL 62703

## Planning on Putting on Spring Nitrogen Soon? Read This First!

*New Maximum Return to Nitrogen (MRTN) Recommendation for the Lake Springfield Watershed*

*Part of the 4Rs of Nutrient Stewardship: Right Source, Right Rate, Right Time, Right Place*



**Illinois Fertilizer & Chemical Association**