

'N' SEASON

**A WINNING TEAM/
A PROFITABLE STRATEGY**



a publication of your ILLINOIS CORN GROWERS ASSOCIATION & CORN MARKETING BOARD



LOADING THE BASES:

Why a coordinated nitrogen strategy is crucial

INFIELD STRATEGIES

IN THE REGULATORY BULLPEN

ilcorn.org

LOADING THE BASES:

Why a Coordinated Nitrogen Strategy is Key

The Illinois Nutrient Loss Reduction Strategy (NLRs) calls for a 45% reduction in nitrogen and phosphorus loss by 2045, with the first milestone goal of a 25% reduction in phosphorus loss and 15% nitrogen loss by 2025.

The NLRs assigns 82% of the nitrogen load from Illinois in waterways to agricultural sources. IL Corn believes that at least one best management practice (BMP) will need to be voluntarily instituted on every corn acre in Illinois to meet the expected reductions in nutrient loss.

The Illinois NLRs outlines strategies that meet community and industry needs while reducing the negative impacts of nutrient loss on the environment, industry, and public health.

We have a lot of work to do, but the good news is that winning strategies are being teed up for voluntary adoption.

"We believe in supporting continuing voluntary efforts to manage nutrients and improve water quality in a way that is sensible from both an environmental and economic perspective," explained ICGA President Aron Carlson.

"The Strategy isn't about reducing nutrient use, it's about reducing nutrient loss and that's something we all can get behind."

In fact, Illinois farmers,

according to the most recent NLRs science assessment update, have already achieved a ten percent reduction in nitrate loss, "likely due to improved agricultural N balances," according to University of Illinois scientists.



Only a 35% N reduction left to go... How can a farmer position themselves for a winning N strategy?

Loading the bases with key players is one way to get a lot of points on the board. The Natural Resource Conservation Service, Soil and Water Conservation Districts, university experts, extension, conservation partners and organizations, state agencies, and other ag associations will all play a role in driving the adoption of BMPs that are best suited for individual farming operations.

"Agriculture has seen massive leaps in technological applications from a production standpoint," said Ted Mottaz, ICGA vice president and corn sector representative to the Illinois Nutrient Research and Education Council.

"Now we're leveling the playing field by investing in research and education efforts to help farmers choose the best strategy for a win on their farms. We're using economic data to drive conservation decisions, and that makes sense on and off the farm."

IL Corn took leadership on water quality issues on behalf of its farmers. In the wake of several high-profile events – substantial algal blooms Lake Erie and development of the science assessment for the NLRs – there was substantial interest in improving water quality and concern about additional regulation affecting farmers.

This was the genesis of several programs, including IL Corn's Precision Conservation Management.

Know your skills players, big hitters, and key coaches. But most importantly, know your own best strategy for reducing nutrient loss so you can have a series of winning N Seasons.



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A New Ballgame



IL Corn developed Precision Conservation Management (PCM) to meet the management needs of farmers by making possible the integration of agronomic information with financial and environmental analytics.

Through its longstanding collaboration with the University of Illinois and Farm Business Farm Management (FBFM), a user-friendly system has been established to facilitate sound, on-farm decision making.

By adding technical assistance and an environmental evaluation through the Fieldprint Calculator, the system is helping farmers make informed conservation decisions and addressing the complex issues associated with economic and sustainable farming – while enabling the farm community to address statewide water quality issues.

PCM helps farmers address water quality through the voluntary adoption of conservation practices and through developing confidence in those practices. Relying on an extensive set of team members including U of I, FBFM, and Heartland Science and Technology, with support from Midwest Row Crop Collaborative, Environmental Defense Fund, Walton Family Foundation, Illinois Soybean Association, Illinois Farm Bureau, Agren, Agsolver, Soil and Water Conservation Districts, and others, the IL Corn/PCM partnership made it possible for the program to receive \$5 million through Natural Resource Conservation Service's (NRCS) Regional Conservation Partnership Program. The long-term goal is preparing

farmers for the Conservation Stewardship Program (CSP).

Through an online Farmer Portal, farmers can access to see the economics of their practices based on the financial averages/standard rates derived from FBFM data. Users can also download a spreadsheet in the Farmer Portal and enter their own financial numbers in place of the standard rates in order to get a more individualized assessment of their on-farm economics.

The farmer's individual information is protected in this system since it remains on the farmer's computer where the calculations take place.

Through this system – either with standardized or individualized data – the farmer has access to the agronomic data by field for his or her farm to see how well the conservation practices may be working.



PCM IS ABOUT

-  Precision Application of Conservation Practices
Apply currently available precision farming technology to optimize results of conservation practices.
-  Farm Business Management Principles
Utilize farm business management principles to make financially favorable conservation decisions.
-  Continuous Improvement
Allowing farmers to demonstrate their good stewardship practices and demonstrate continuous improvement.
-  One-on-One Consultations
Providing one-on-one consultations with conservation experts to give farmers the information, resources, and confidence to adopt new practices.

"A PCM specialist is on my team and I have learned a great deal about my on-farm economics, decision-making, and the differences between conservation practices. For N timing, observing the results is fairly straightforward. I can see higher yields with split applications and can balance the increase in cost from a second application versus the benefits from greater yields. The results are observable with N timing, and with \$3 corn, I need winning strategies," said Dirk Rice, ICMB director and farmer from Philo. "PCM has the ability to compare split vs. fall and other applications and help farmers see the differences and advantages."

"All of the data I can collect and analyze makes me a better farmer. It allows me to go into the next growing season with a data-driven game plan that helps me minimize my impact on the environment."

Justin Durdan
Illinois Corn Growers Association
Grassroots Committee chairman



P | C | M

- 30+ team partners from ag industry, commodity groups, government, universities, and foundations
- 120+ IL farmers in 16 counties
- 3 years of data
- 140,000 acres
- 1800 fields

GET AHEAD OF THE GAME AT ILCORN.ORG

INfield Strategies

WATER TESTING PROGRAM

The IL Corn water testing program was designed to engage farmers in the nutrient and water quality issues facing our industry by knowing how much nitrogen is leaving their fields. We've integrated 50,000 postcards, 31 SWCD and/or County Farm Bureau offices, 110 testing events, 2015/2017 Farm Progress Show water testing availability for thousands of visitors, and more than 80,000 farmer impressions on email and social media to build awareness regarding our IL Corn-funded free, **confidential** water testing program and water quality issues in general. Joining IL Corn on the team: CBMP, IL Farm Bureau, SWCD, Zea Mays, ISAP.

COVER CROP PROGRAMS

Illinois Corn Growers Association and Illinois Corn Marketing Board have teamed up to bring cover crop opportunities to ICGA members. Through our membership coupon offer, first-time cover cropper incentives, and multi-year crop crop program, we now have more than 50,000 additional Illinois acres under cover crops. When it comes to in-field practices, there's no better way to reduce nutrient loss than to implement a cover crop program, making it a key player in your winning strategy. This successful programming is being duplicated in other states. Joining IL Corn on the team: seed companies, The Walton Foundation, Zea Mays, aerial applicators, and cover crop specialists.

SOIL HEALTH PARTNERSHIP

IL Corn welcomed the SHP program to our state as an early partner in the program. We will have more than two dozen field days under our belt by the end of the year. There are 30 research farms in Illinois. IL Corn and SHP work to recruit a network of farmers and farms, establish research protocols, publish findings and recommendations, and support networking and technical assistance among the participants. Joining IL Corn on the team: The National Corn Growers Association and diverse partners including government agencies, universities, and conservation interests.



Infield vs. Outfield

"The Illinois Nutrient Loss Reduction Strategy lays out several options to tackle N loss. IL Corn believes that infield options, like the 4Rs, cover crops, split-applying N, and nitrogen inhibitors should be the priority. They're the sweet spot of where you can reduce nutrient loss and improve your practices in a positive way that impacts your bottom line."

"Edge of field strategies, what you might call outfield options, like bioreactors, are a win for the environment but a costly way to clean up nutrient losses, as they don't provide any benefit back to the crop or the farm. They're doubly costly because you're spending money on the nutrients and on the cleanup with no gain on production."

Rodney M. Weinzierl
Executive Director
Illinois Corn Growers Association

Need A Strategy? Here's A Strategy.

ACHIEVE IN 4 TO 5 YEARS

It will take a series of Best Management Practices, building on each other over time, to meet the expectations of the Illinois Nutrient Loss Reduction Strategy [% N loss reduction per acre]

Use University of Illinois recommended nitrogen rates (MRTN) [10%]

No fall N application south of a line roughly corresponding with IL Route 16.

When applying fall N north of IL Route 16, 4-inch depth ground temperature should be sustained below 50 degrees, and a N inhibitor product should be used at the recommended rate. [10%]

No more than 50% of total N should be applied in the fall.

Waiting as long as possible for spring N application maximizes nutrient loss reduction.

Knowing that applications happening too late can pose a productivity risk, choose the latest possible application timing, with at least 30% of the N applied as post-plant. [7.5-10%]

Implement a cover crop regimen on at least one of your best, well-drained fields.

For those without previous experience, a terminal cover crop program (winter-killed oats and radish) is recommended. (30%)



“The use of cover crops, reduced tillage, and improved nutrient management requires a system change supported by a team of advisors, or coaches, so to speak, with expertise in science, and local research that can translate to practical, on-farm practices.”

Paul Jeschke, chairman, Illinois Corn Marketing Board

In the Regulatory Bullpen

- The U.S. Fish and Wildlife Service has been petitioned to consider the Monarch butterfly for the endangered species list. A decision is expected in June 2019. To avoid a listing, the Illinois Monarch Project is tentatively targeting 150 million additional stems of milkweed in Illinois.

- Conservation funding for the Conservation Stewardship Program (CSP) and Environmental Quality Incentives Program (EQIP) is in jeopardy. IL Corn prefers conservation programs be centered on working lands as opposed to bringing more acres out of production through expanded Conservation Reserve Program (CRP) acres, for example.

- The next farm bill is not likely to be completed before the current farm bill expires. That means that Congress must extend the current bill to keep programs in effect.



“We’ve seen some much-appreciated rollbacks on burdensome regulations, like with the Waters of the U.S. rule. That said, moving forward, to avoid additional regulations, Illinois Corn believes that undertaking voluntary best management practices, supported by precision conservation management type data, is the way to demonstrate that farmers do make environmentally sound choices and do not need to be regulated.”

Aron Carlson, Illinois Corn Growers Association



Calling New Talent Up From the Farm Team

If you're a member of the Illinois Corn Growers Association, you've recently received from us two separate asks to participate in surveys about how you use crop insurance and how it relates to conservation practices on your farm.

We're looking to tap newly developed data and call it up to the big league.

This is part of IL Corn's overall game plan: Capture the economic value of your best management practices in your fields to reduce nutrient loss and turn that into a positive impact on your bottom line through reduced costs or improved yield, over time.

"One way to prevent negative regulatory action is to get regulatory buy-in on best management practices. This effort being spearheaded by IL Corn and NCGA to establish the new conservation endorsement on crop insurance is a strong move in that direction," said Jonathan Coppess, University of Illinois ag policy specialist.

"Many farmers use conservation practices but certain crop insurance rules are restrictive and risky for farmers adopting the conservation practices in conjunction with some policies.

Currently, the federal crop insurance program does not consider risk-reducing conservation practices when determining premium rates, even when those practices over time lead to lower risk. The conservation endorsement could help better incentivize and reward growers using conservation practices and lead to broader adoption among farmers."

Specifically, we're working with the National Corn Growers Association, in conjunction with a group of foundations and university professors, in leading a study to explore the viability and need of a new crop insurance endorsement that would potentially provide lower insurance ratings and higher Average Production History figures to farmers using conservation practices.

It would also provide coverage if use of a conservation practice led to a loss, or to the inability to meet certain crop insurance rules (such as cover crop termination deadlines) so that farmers using these practices would not risk losing their coverage.

This second component would work by creating and insuring an objective measure of field days (e.g., weather index based).



The Endorsement would work with existing Revenue Protection or Yield Protection insurance.

It is anticipated that the initial practices included in the endorsements would be geared toward corn, soybeans and wheat in the greater Midwest and include:

- Conservation and no tillage, including strip till.**
- Split applying nitrogen.**
- Appropriate crop rotations.**
- Use of cover crops.**

A TRIP TO THE MOUND

What's Your Game Plan?

IL Corn sees several key players and heavy hitters that you should consider for your team, based on data collected over the past three years:

Strip till: This conservation tillage strategy could be the sweet spot for the bulk of IL Corn farmers, bringing the best benefits of reduced tillage and precision nutrient application to the batter's box.

Split application of N: This is definitely a base hit, if not a double. Planning for at least 30% of your N to be post-plant will get you on base.

Cover crops: This strategy is a heavy hitter when it comes to preventing nutrient loss, knowing that sometimes, when you swing for the fences, you may end up hitting a sacrifice fly.

The 4 Rs, the old-standby of leadoff hitters: The Right Place, Right Rate, Right Time, and Right Source represent a teammate that you cannot live without. They're the backbone of your strategy's lineup and a must-have.



MAKE IT A WINNING SEASON.



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