FOTC 2015 Fertilizer Outlook & Technology Conference

MAKING THE RIGHT MOVES

OUR CHALLENGES. OUR IMAGE. OUR FUTURE

# Integrating Technologies on the Farm for Soil Health and Nutrient Management


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Nourish, Replenish, Grow

# Integrating Technologies on the Farm for Soil Health & Nutrient Management


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It’s about accountability, and profitability

It’s about Managing nutrients as a system, not an application.

It’s about losing less nutrients and utilizing more.


It’s about **M**inimizing environmental impact by **O**ptimizing yield and **M**aximizing N utilization.

Right Source

Right Rate

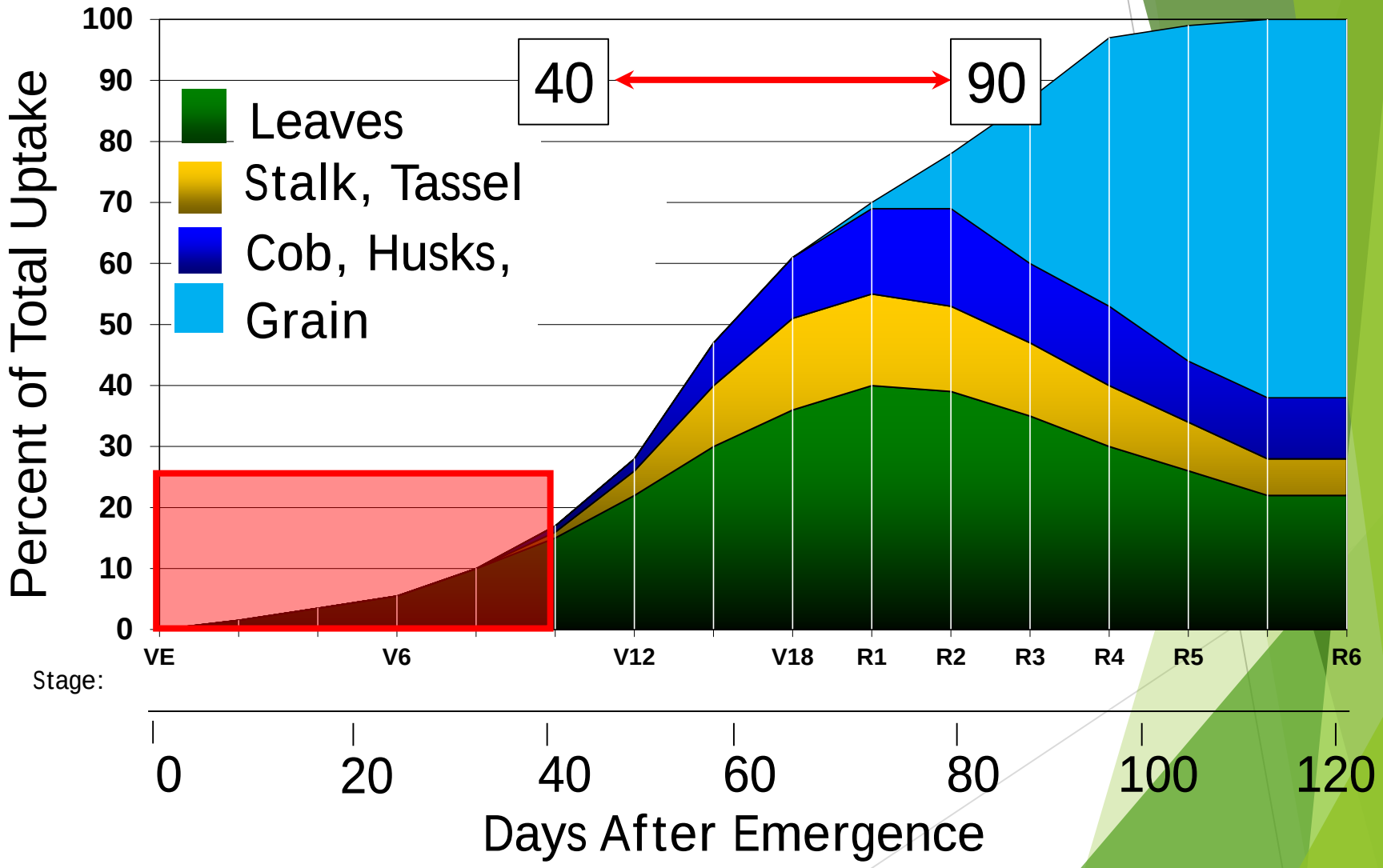
# Nitrogen Management System

Right Time

Right Place

nutrient stewardship

# NITROGEN UPTAKE IN CORN




Source: Adapted from How a Corn Plant Develops, Special Report 48 Iowa State University

# NITROGEN as a MANAGEMENT SYSTEM

- 50% Fall or early Spring w/N-Serve (knifed)
- 25% Preplant broadcast
- 25% (+/-) post-emergence

# NWATCH™

A Tool to Estimate the Where, What and How Much of N Management

GROWMARK AGRONOMY℠

NITROGEN MANAGEMENT SYSTEM

MOM

**Minimize** Environmental Impact
**Optimize** Harvest Yield
**Maximize** Input Utilization

# WHAT IS NWATCH?

- A tool to use with N Management Systems
- Monitor N behavior at a point in the field
- Decision aid with late-season N Mgt.
- Early detection of high residual N (cover crops?)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# Importance of a systemic approach to crop nutrient

- Are we putting back the fertility we are removing and being good stewards of the soil and helping growers keep the bins and banks full.
- Are we using the Data we have at hand to make the best farming decisions for each farm and field.

- **Growers can't always control crop growing conditions, crop input pricing, or grain pricing but they can control how they invest their fertility dollars.**

# Combined Removal (Corn/Soybeans) Based on Il Ag Handbook

| YIELD (Bu/A) | 150 | | 200 | | 250 | | 300 | |
|---|---|---|---|---|---|---|---|---|
| | DAP | Pot. | DAP | Pot. | DAP | Pot. | DAP | Pot. |
| 50 | 237 | 178 | 283 | 202 | 330 | 225 | 378 | 248 |
| 60 | 254 | 200 | 300 | 223 | 348 | 247 | 396 | 270 |
| 70 | 274 | 222 | 320 | 245 | 367 | 268 | 414 | 292 |
| 80 | 293 | 243 | 333 | 266 | 387 | 290 | 434 | 313 |

# 7 "Fail-Safe" Steps for Maximizing Fertilizer Returns with Limited Resources

1. Soil test to determine need
2. Lime adequately
3. Grow best crop possible
4. Use "right" rate
5. Take nutrient credits
6. Maximize efficiency /avoid losses
7. Avoid unnecessary additions

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