



# **Engaging Growers in Stewardship Actions for Drift Mitigation**

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# How can we ENGAGE growers in new practices?

- ◆ Know the audience
  - ◆ Willingness and constraints
  - ◆ Concerns and opinions
  - ◆ Current practices
- ◆ Get Leaders out front





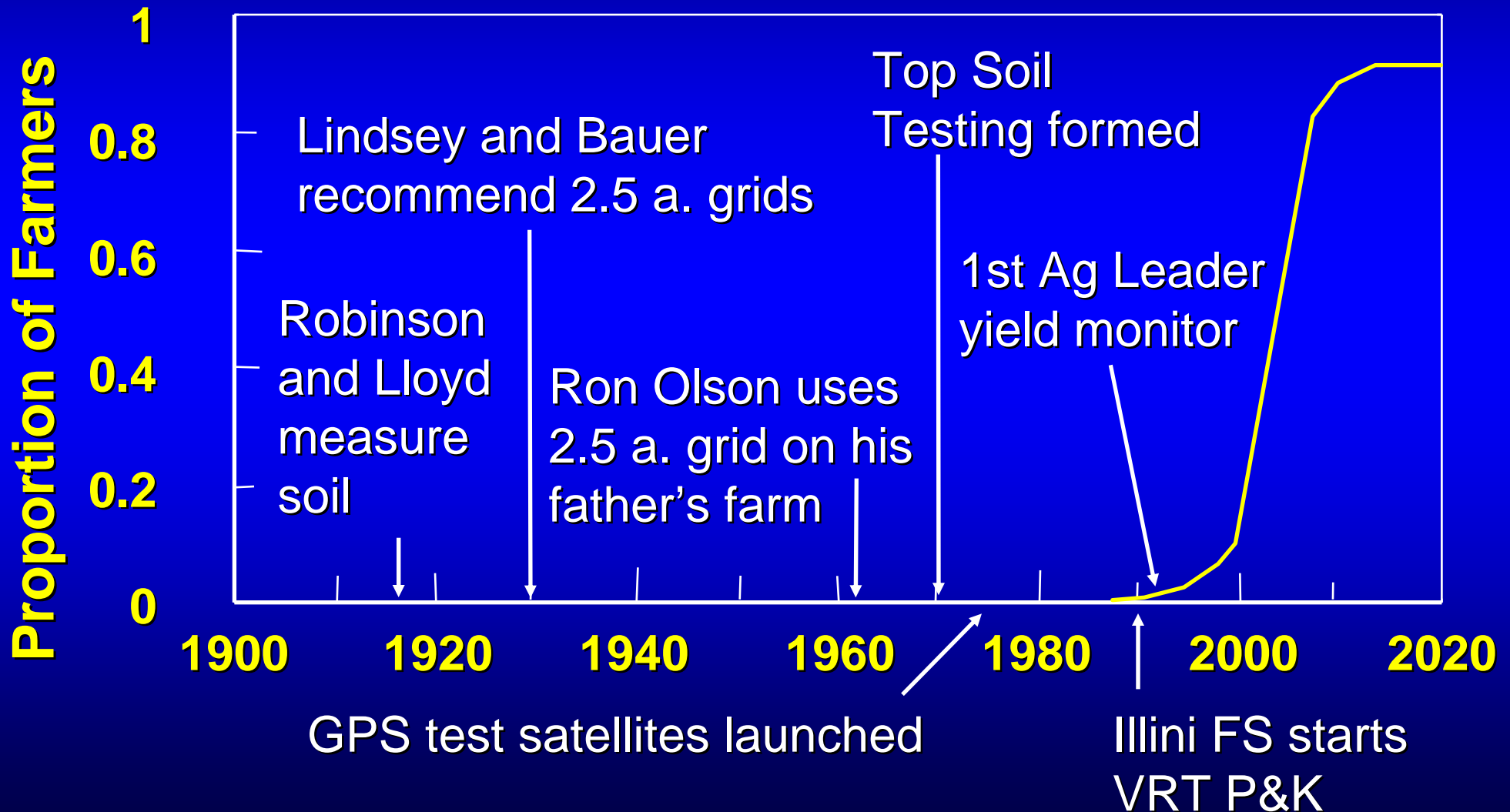
# Recall ---- Change takes time

- ◆ No-till still underway
- ◆ IPM – ditto
- ◆ Precision Ag – Beginning

So --- can we improve on acceptance rates?

How?

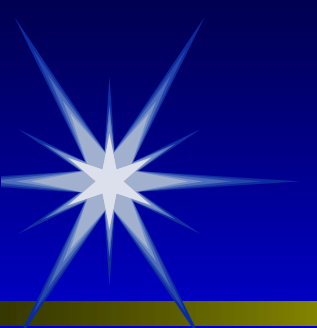
# Precision Ag Adoption Classic S Curve Estimate





# So what's first?

- ◆ Obtain information
  - ◆ Surveys yield keys about current grower actions
- ◆ Identify opportunities
  - ◆ What will make change easier?



# Survey Questions?

- ◆ Will they tell us? Bias?
- ◆ How representative is the data? Value = ?
- ◆ Do we have enough responses?
- ◆ OH vs. other states
- ◆ Is it useful to assess benefits / failures of our education programs?



# Self-Assessment Surveys

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- ◆ Initial Ohio dataset
- ◆ Expanded to other states
- ◆ Use of recertification process
- ◆ Custom applicators - Growmark





# Key Results

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- ◆ 72% have farm maps but do not use them to identify sensitive areas
- ◆ 84% do not have written / posted Plan of Action for drift mitigation

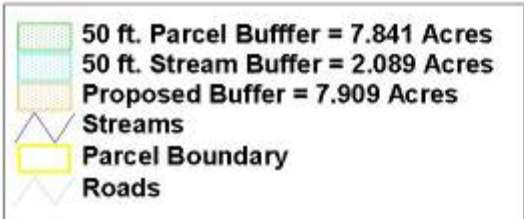
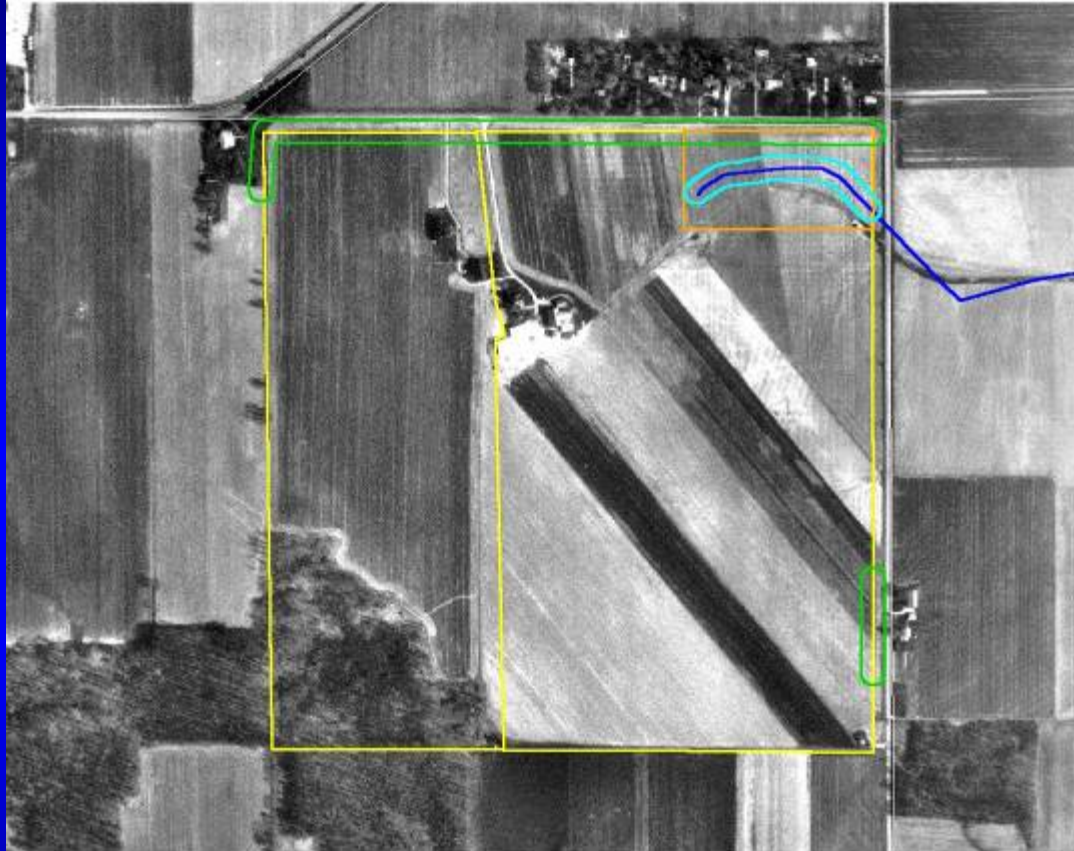
# Dave Maurer



- Parcel Boundary
- Parcel Buffer = 13.955 Acres
- Roads



# Tim Moomaw





# DM Application Strategies

- ◆ 94% calibrated at least once / year
- ◆ Tactics used: low drift nozzles, adjuvants, lower psi and ground speeds, etc
  - \* Boom - average of 5.2 different tactics
  - \* AirBlast - average of 6.5 different tactics

\* Multiple tactics – Yes!



# Assessment of weather conditions

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- ◆ Most view moving foliage plus one other tactic; weather station, few on-board devices, radio, cell phone, etc
- ◆ Lack standard on-board devices



# Willingness to do more in Drift Mitigation

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- ◆ Sensitive area identification
- ◆ Modify edge practices
- ◆ Windbreaks / neighbor communications

But little support for conservation set-asides





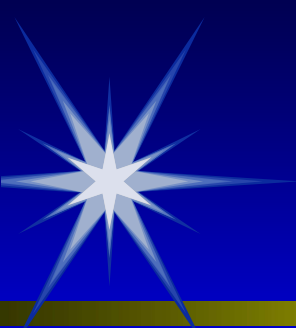
## Barriers to doing more in drift mitigation were:

- ◆ Costs
- ◆ Time and labor
- ◆ Risks
- ◆ Help available?



# Key Points from Pilot

- ◆ Incentives and cost-share
- ◆ POA for awareness zones
- ◆ Site-specific weather assessments
- ◆ Willingness ———> Barriers
- ◆ Neighbor communication
- ◆ Grower concerns



# Future Actions?

- ◆ More than drift
  - └─→ Stewardship
- ◆ KISS = a beginning
- ◆ Incentives → Attention
- ◆ Help → Momentum
- ◆ Demos → Key to engaging leaders
- ◆ Partners → Multi-state coalitions



“Grower Empowerment”

# Constraints to Adoption of Change

- ◆ **Federal program without flexibility**
- ◆ **Language: scientist vs. farmer**
- ◆ **Measures of success**
- ◆ **Identification of goals**
- ◆ **Risk aversion**
- ◆ **Perception of costs - **Must see a benefit!!****



**Incentives**



# Environmental Health

Just as with IPM - - -

Take advantage of current trends

◆ Food safety - E. coli

↳ Track food supply sources

SYSCO → Now require environ. stewardship actions

Voluntary Initiative

Others ?



# Food Security → Environmental Stewardship

- ◆ Local
- ◆ Fresh
- ◆ Family Farm

Are you taking advantage?





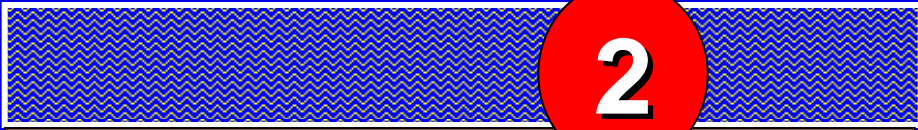
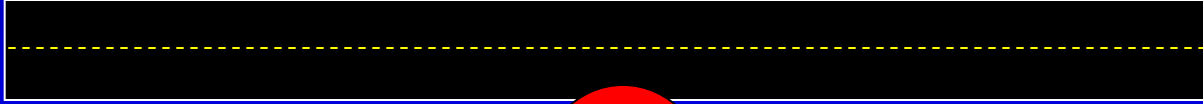
# '08 Stewardship Initiative for Specialty Crop Growers

- ◆ Volunteers Showcase ES
- ◆ Encourage Stakeholder Feedback
- ◆ Public/Private Partnership



# Deliverables

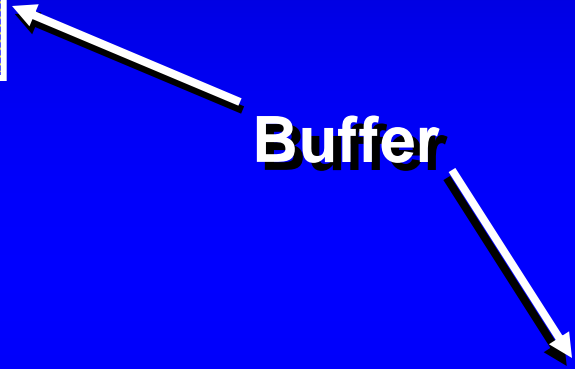
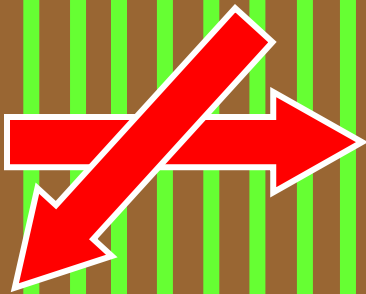
- ◆ Environmental Checklist – Self Audit
- ◆ Plans of Action
- ◆ Mapping Vulnerable Sites
- ◆ Supply On-Board Met Devices



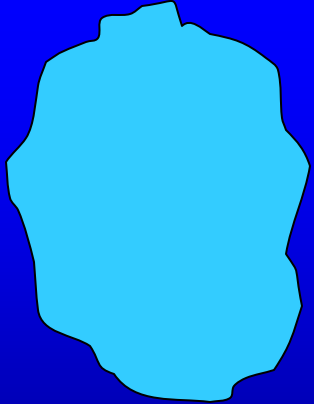
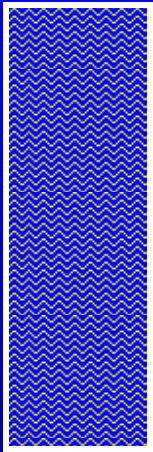
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Buffer

Wind  
Speed



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## **DRIFT MANAGEMENT -- PLAN OF ACTION**

**BLOCK NAME/SECTION #** \_\_\_\_\_

### **ACTIONS TAKEN \*\***

- 1.
- 2.
- 3.
- 4.
- 5.



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# Conclusions

- ◆ Proactive
- ◆ Sustainable
- ◆ Green sells
  - ◆ New markets / Increased sales
- ◆ Grower participation / collaboration



# AND so to change behavior ---

- ◆ Grower panels can be powerful influences
- ◆ Demonstration Farms to lead / influence followers
- ◆ Encourage flexibility in an “Energy Star-like” approach

# SPRAY DRIFT MITIGATION IN RELATION TO OTHER PROGRAMS

## POLICIES

Pesticide Selection and Reduction



**Grower Empowerment**



Long-range Planning

## PROGRAM

IPM → ICM



**Drift Mitigation PILOT**



FARM Management Environmental Resource Planning

## ACTIVITIES

Wider scope of crop protection action for each site on farm



**Specific actions High risk sites**



Total farm actions for long-range economic and environmental planning/strategy evolution





**Let's get together!**