



Ohio Grain Growers' Nutrient Reduction Efforts

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What are Ohio Farmer's Doing?



Do you know a farmer?



Maybe not...

Farmers are only 1.5% of the population



How is Ohio Agriculture organized ?





General Farm's (1940s/50s)



Specialized Farm

(1960s – today)



Timeline of Agricultural Organizations



1902

1919

1968

1970

1977

1985

1989

1990

1991

2008





Checkoffs

v/s

Associations



v/s



The job of a checkoff



- Increase demand for a commodity
- Increase profitability of farmers who grow that commodity



Job of the Associations



- Advocate for public policy favorable to a commodity
- Be the public voice for a commodity



What motivates a farmer?



- Values of God, Family and Country
- Independence, outdoors, working with family. (90% family farms in Ohio)





So if it's such a great life why don't more young people start farming?



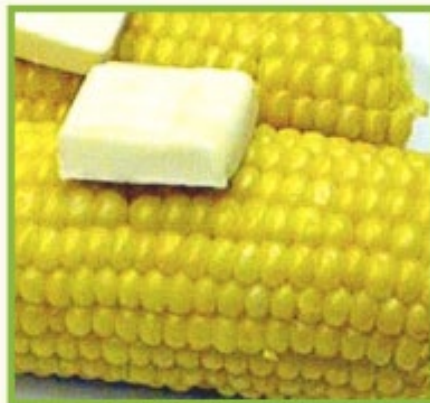
Tale of Two Corns



Field Corn

- 88.2 million planted acres
- 12.5 billion bushels produced
- Crop Value: \$65.2 billion

99%



Sweet Corn

- 656,600 planted acres
- 166.3 million bushel equivalents
- Crop Value: \$1.2 billion

1%



Diversity of farmers



The Color of Equipment



Diversity of farmers



The Sign by the Road



Diversity of Farms



- Diversity in agriculture markets
 - (ethanol, livestock, exports, food,)
 - Tillage (no till, conventional till)
 - Different soil, slope, rainfall
 - Nutrients (manure or commercial fertilizer)
- One size does not fit all



USDA NRCS Measuring Progress



- Study looking at the changes in conservation practice adoption on cultivated cropland acres
- Comparison between the 2003-2006 and 2012 data sets
- Published in 2016



NRCS Findings



- Acres with management for erosion **increased from 34 to 54 percent of acres.**
- Cropland acres managed with an edge-of-field trapping practice, such as a filter or buffer, **increased from 18 to 31 percent of acres.**
- Acres on which all nutrient applications were incorporated in some manner (knifed, tilled, or banded) increased.
- The percent of cropped acres on which nitrogen was incorporated at every application **increased from 29 to 43 percent** and on which phosphorus was incorporated at every application **increased from 45 to 60 percent.**
- About 71 percent of acres had a soil test within the last 5 years.
- GPS was used to map soil properties **increased from 8 percent to 36 percent of cropland acres.**
- The use of variable rate technology **increased from 4 to 14 percent of cropland acres.**



Phosphorus Application

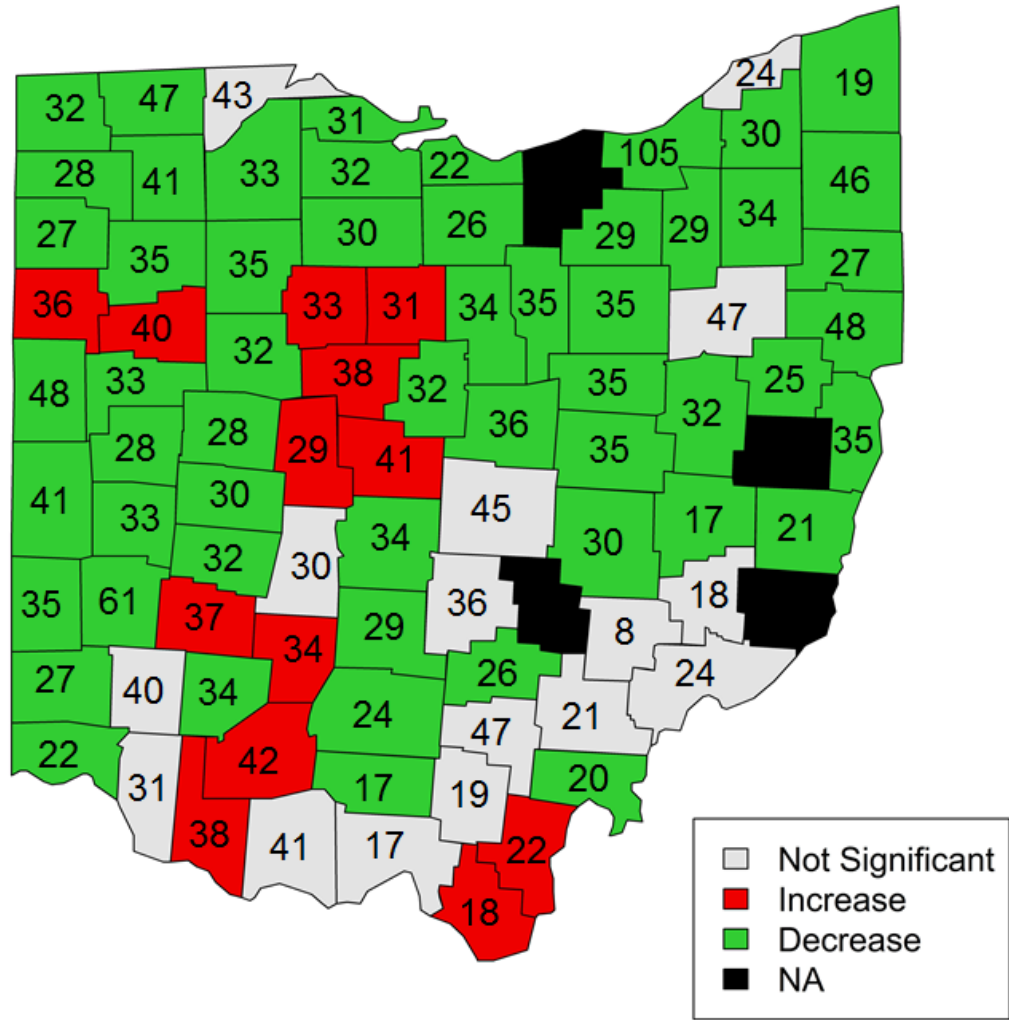


Are farmers applying too much phosphorus?

- OSU research over entire state shows that soil test P levels trending down over past 25 years in 80% of 88 counties
- USDA research on Ohio fields showing that crops are removing more per acre than farmer is applying
 - Application = about 21 lbs P
 - Crop Removal = about 24 lbs P
 - Total runoff = about 1 lb P (surface and tile)



Soil Test P Trend 1993-2015 (P_50%)



4R Nutrient Stewardship



Ohio

47 Certified
Branch Facilities

2,890,000

Total Acres

6,000

Clients Serviced

WLEB

37 Certified
Branch Facilities

1,900,000

Total Acres

3,580

Clients Serviced





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Questions ?