Nutrient Management "Implementing the 4 R's"

Conservation Practices on cropland work!



Conservation Effects Assessment Project (CEAP)

- About 60% of the cropped acres require additional nutrient management to reduce the loss of nitrogen or phosphorus from fields.
- Suites of practices need to include soil erosion control and nutrient management.
- Proper rate, form, timing and method of application are lacking.



"Conservation Practices on Cropland Work!

- Our farmers have demonstrated good stewardship works......
- Reduction in soil erosion and sedimentation have made a significant difference in water quality.
- We see the results on cropland that has erosion and sediment control practices in place.



Suites of Practices (systems) work better!

- The appropriate combination of conservation practices and management techniques will address specific resource concerns.
- Terraces, grassed waterways, water & sediment control basins, filter strips.....work!
- Reduced tillage works.....95% of farmers using on at least one crop in their rotation.
- We need to send a message...."There is a little room for conservation practices and conservation programs on every farm."



We have an opportunity!

 Application of nutrient management practices are being applied on most cropland acres but their application is incomplete and inconsistent!





We have an opportunity!

 Conservation partners (TSP's, NRCS, SWCD's, Discovery Farms, Extension, Producer groups) need to work together with landowners to increase the use, consistency and completeness of nutrient management practices.



Where do we need to go???

■ Implementing the 4 – R's.....Proper Rate, Form, Timing, and method of application will substantially reduce the loss of nitrogen and phosphorus from fields.



Precision Agriculture....we need to implement it on all farms.

- Yield monitors work!
- Need flow meters to provide more accurate applications.
- Need to make precision ag available to all farms....size neutral.
- Need payment rates in local, state and federal programs to enhance adoption.

Implementing a "Systems Approach" will work!

- Control soil losses (erosion control practices), drainage water management (grid tile systems), irrigation water management and nutrient management will work!
- Minnesota's Nitrogen BMPs work and should include N-inhibitors.
- Payment rates to encourage folks from fall applications of nitrogen.

Targeting limited resources???

- There is a little room on every farm for all of our programs....we need the private and public sector selling them!
- Do we need to target assistance to the most vulnerable cropland first?
- Tea leaves indicate that conservation \$\$\$\$ will be limited at the local, state and federal levels.



We are doing a good job...but need to do better or risk more regulation.

- Producers need consistent and reliable information which means we all have to be on the same page!
- WE must remain proactive, amend our programs to meet producer needs/demands, and they must make money....or adoption will be limited.





Thank You!

Don A. Baloun
State Conservationist
Minnesota-NRCS

don.baloun@mn.usda.gov

