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Priority from Agenda: Natural Resources and Environmental Stewardship Date: 3/28/2007

Situation Statement regarding Priority:
“The growing bioeconomy will place increasing demands on demand for maximizing production from agricultural lands. This increase in demand and production will have unknown consequences on the environment and other agricultural enterprises. While maximizing production there is a need to consider impacts on the environment and natural resources.”

In our enthusiasm for the new opportunities in the bio economy, we don’t want to undo the conservation gains that we’ve accomplished in the past several decades (since 1985). Concerns about water quality due to continuous corn rotation (ethanol – water quality/quantity); crop residues (soil quality);

Strategic Purpose for Priority:
As we move from a farm economy focused on food and feed to one that includes energy production, we must maintain profitability, minimize environmental impacts, and maximize opportunities for environmental gain. Impacts on water quality and quantity, wildlife habitat, soil fertility and tilth, and other areas need investigation to maintain public confidence in agriculture. Extension should lead the way in helping agriculture change and still maintain its strong conservation image with the wider public.

ANR Extension Overarching Goals for Priority:
• Assist farmers to adopt conservation practices
• Assist farmers to maintain conservation practices
• Assist animal producers to adopt production practices to improve water quality
• Educate public on environmental impacts of the bioeconomy

Approaches for Behavior Change:
• Develop curriculum for women land and legacy and other women landowner programs for teaching about environmental decision making.
• Develop curriculum for professional farm managers about environmental decision making.
• Develop of on-farm learning centers for demonstrating best management practices on producers production fields.
• ISU R and D farms work to demonstrate best management practices.
• Provide reliable documentation (through research and demonstration) and facilitate discussion with CDI, NRCS, IDALS, local watershed groups, and environmental organizations.
• Develop curriculum for landowners specifically related to environmental decision making factors to consider as operations change.

Target Audience(s):
Farm operators, livestock producers, row-crop producers, landowners, farm managers, agribusiness, state agencies, local watershed groups, conservation NGO’s, crop consultants
Activities:
- Field days focusing on conservation and water quality partnering with local groups
- Focused meetings on conservation and environmental issues—partnering with outside groups (agribusiness, conservation groups, etc.)
- Fact sheets on environmental issues
- Websites
- Facilitate local watershed groups to promote conservation practices, partnering with other conservation NGO’s and other local groups.
- Promote citizen monitoring of local resources (through IOWATER and Iowa NatureMapping) to track local changes and engage farmers and non-farmers in resource conservation.
- Training of citizen groups in conservation through the Master Conservationist Program

How to Measure Success:
- On-site outputs of nitrogen decrease?
- Number of farmers that adopt one or more new conservation practices
- Increase number of miles of stream bank stabilization projects
- Adoption of IPM practices as alternative means of managing crops
- Strategically placed surveys and follow-up assessments to track changes (end-of-meeting surveys, mid-project assessments, etc.)
- Number of people attending bioeconomy meetings where conservation is the focus

Key Considerations: (Ok To Express As Questions. Other Key Considerations May Be Substituted Or Added)

Potential Resources & Sources of Funds: private groups (Iowa Ethanol Association, Farm Bureau, etc.); NRCS, RC&D, University Farms allocation

Potential Impacts:
- Positive: new collaborations (private industry, ethanol coops, etc.); help ISUE maintain a positive public image if/when bioeconomy falters
- Negative (if no action is taken): Extension takes the hit on its reputation if something goes amiss in the bioeconomy (even if we do something); If we don’t do more broadly in conservation practices, we risk increased external regulations;

Collaborators, Contributors, Participants:
- Energy industries
- Local watershed groups
- Conservation NGO’s
- Agribusiness
- State agencies

Synergy and/or Conflict with Existing or Related Programs:
With the bioeconomy, the “Beginning Farmer” priority area has natural potential

Relationship & Contribution to Other ANR Priorities:
Provide science based information about environmental considerations related to Bioeconomy. Work with Beginning Farmers about environmental considerations of ag production.