

Nebraska Climate Pollution Reduction Plan Stakeholder Engagement Notes

Date/Time: Thursday, November 30th, 2023

Sector: Agriculture / Natural & Working Lands (Round 1)

Welcome & CPRP Presentation:

- Welcome & Ground Rules
- NCPRP Presentation
- Short Q&A
 - Will farmers who are already implementing some of these practices be recognized or rewarded for the work they are already doing? NDEE noted the focus of this project is going beyond what's already being done.
 - Is there already a systematic way to look at the ideas and provide feedback? NDEE noted processes are still being developed to do that.
 - Does this project align with any future potential Nebraska state climate action plans? As far as NDEE is aware, there is no such plan. This project is the first step in this area.
 - What tools would be used to model/estimate GHG reductions? NDEE noted there are a variety of tools available online. The EPA has a list of tools.
 - What plans are there to target outreach to underserved communities? NDEE noted that it is currently being worked on. It's a bit of a challenge in Nebraska because, typically, the EPA looks at underserved communities in urban settings. Still, we know Nebraska has a lot of underserved communities in rural settings. We are looking into outreach through Nebraska Extension, Community action plans, and in-person meetings.

Key Question 1: Poll

Of the 4 example measures, how would you prioritize them? Do you have others to propose?

- 38 participants responded to the poll ranking the program and policy examples as follows (highest to lowest priority)
 - Provide incentives to producers to implement soil health/regenerative agriculture practices.
 - Promote climate-smart livestock management practices.
 - Provide incentives for anaerobic digesters to reduce manure and ag waste to produce biogas.
 - Provide incentives to convert irrigation wells from diesel to electric (expand Clean Diesel Program)
 - Other
- Other responses included:
 - Provide incentives for decreasing reliance on nitrates and other pesticides and fertilizers that run into the water supply.

- Build an incentive program for procurement of low-emission ammonia (a handful of emerging projects in this area involving clean hydrogen).
- Take a much more systems approach to accelerate the adoption of soil health principles go far beyond simply providing dollars per acre.
- Electric fleet and equipment.
- Provide assistance to update precision agriculture equipment.
- Incentivize the adoption of chemigation for improved nutrient management.
- Investment in biochar production and distribution.
- Support new market development for small grains, legumes, and agroforestry products through new partnerships.
- Comprehensive wildfire resilience (to address invasive species and reduce the risk of catastrophic wildfire); avoided grassland conversion (additional incentives). Existing grasslands are important carbon sinks, and avoidant conversions are one of the cheapest ways to keep carbon in the ground.
- Intentional TSP education- this is a shortfall of existing cost-share opportunities. These existing staff are few and often new to their role without local knowledge and relationships with growers. With better and more ample technical service, we would hopefully get higher adoption.
- Provide tools and information, support early adopters need to continue to innovate
- Infrastructure for carbon inset market expansion, providing growers funds or low-cost options to get their Carbon intensity score for their acres certified.
- Work with carbon capture initiatives and work on ways for producers to capitalize on their efforts- i.e., CI scores.

Breakout Room Discussions:

Room One- Grain/Row Crops/Irrigation/Alternative Fuels

Attendance:

Group Discussion:

- Discussed 45 Z in the Inflation Reduction Act
 - The Act created a tax credit for producing ethanol and low-intensity beans to put into renewable or green diesel fuel. Companies going to make fuel jet fuel
 - Tax credit is probably the biggest incentive for farmers. Do three ways
 - No-tillage
 - Cover crops
 - Reduction of commercial fertilizer
 - GREET Model factors Carbon Intensity Score for your crops. The biggest way to reduce is cover crops. Next is reducing tillage (about 25%), reducing another quarter by reducing commercial fertilizer use.
 - Carbon score for corn around 28-29%.
 - 3-year tax credit program.
 - Implementation starts in January of 2025.
 - Numbers are so big. Is it worth it for three years? Maybe, but yes.

- Discussed focusing on the principle of regenerative ag, help farmers fall into a solution-oriented position and enable them to meet regenerative ag principles which have impacts on the environment and on business- e.g., and help farmers apply charted natural climate solutions.
- Discussed looking at the USDA Conservation Stewardship processes and modeling a scoring/measuring system based on that
- Discussed helping farmers get precision ag technology but also helping them use the info/teach them how to make decisions based on analyzing the data they have
- Should also look at methane and cattle production. What can be done to reduce the impact?

Group Three- Animal Agriculture

Group Discussion:

- The group discussed cow-calf operations, water resources, feed lots, different resources, and manure management.
- What should we be thinking about in animal management?
 - Cattle/dairy surface area on barns and roofs = solar, solar panels expanding use to reduce carbon footprint.
 - Reduce the need for nitrous fertilizer.
- Do we have the infrastructure to accommodate the changes we are trying to make?
 - Sites use \$ 70-\$ 100k in electricity, much of which is generated by coal. There is a chance to use other renewable energy sources. New swine buildings should include solar energy, which can be added to any site already built. Solar systems are 20-30-year systems that benefit future generations as well.
 - Manure application also involves cover crops, irrigation/chemigation, and growing one's own feed. As producers, they can fill a lot of gaps with common practices that are already done.
 - Missing infrastructure: Digestors depend on which sectors, feedlots in Nebraska don't have roller-compacted concrete to keep clean, retro-fitting buildings can be difficult when buildings aren't built to support heavy structures, EPA proposes end-goals, there are lots of things to do before end-goals, i.e. weatherization requires bringing the entire building to code first, bridge solutions to get to incentivized goals, solar is an option but it still costs more money, what are roadblocks that exist?
- How do we reach out to farmers to provide information? What can be done in barns? Lighting, old pumps, fans, heating and cooling systems, what are incentives to improve energy efficiency/weatherization? Dairy barns, swine facilities, poultry, most are 3-4 years old right now
 - Feeding operations that are open have poles for water tanks and rotational grazing systems that leave fallow land.
 - Economic feasibility: Think first before offering incentives for behavior. Does not support anaerobic digestors because they're very expensive and not economically viable unless producers increase their herd sizes, which further burdens neighboring

- communities and increases waste in a given watershed, would rather see support for strategic grazing, grazing on deep-rooted pasture that supports more carbon uptake.
- Electric renewable identification numbers (carbon trading?), farmers could generate renewable power and sell it to NEPPD for income. Are we able to add income to farmers when incentives run out?
 - Opportunities to increase efficiencies: Roller-compacted concrete is more efficient, better for cattle with diseases, and decreases time in the finishing cycle, which decreases methane production. Feed mills have old and inefficient boilers that could be replaced, could cut wheel loader fuel usage by keeping products nearer the feed mill, basically don't forget about basics in the supply chain, which could help reduce methane/fuel use/etc.
 - Start small, make it beneficial, do measurable things to get people on board, and don't go from point A to point Z, and scare people off.
 - Education is key.

Large Group Discussion of Stakeholder Proposals:

Animal Agriculture Large Group Summary:

- Solar produces energy, but looking at infrastructure and what to do with extra energy.
- Updating existing barns and such with better equipment, lighting, etc.
- Using solar for water tanks.
- Rotational grazing with cow/calf operations.
- Upsides/downsides to digestors: Labor intensive, have to have enough animals to make it worthwhile.
- When incentives run out, they must get buy-in from the user to continue what they are doing, and income would be the best buy-in.
- Increasing feed mill boilers.
- Education to producers.
- Measurability: measuring existing electrical usage and then if you're able to add solar or update the lighting. The easiest things to measure.
- Efficient gains in cattle and better feed conversions.
- Go into talking to them on how they can save money and create a better income stream. That's one way to help incentivize/gain buy-in.

Grain/Row Crops/Irrigation/Alternative Fuels Large Group Summary:

- Need for increased precision ag, measurable way to reduce emissions, touched healthy on fertilization to keep tabs on nitrogen
 - expensive systems
- The barrier to chemigation is the perception it wears and tears on pivot materials, addressing that through research and proven demonstration
- Carbon Intensity scoring and tax credit - unknowns about the regulatory process for that

- Having growers have a carbon intensity score helps producers understand business infrastructure around there, a way for growers to make a good profit on a low carbon intensity score

Regenerative Agriculture Large Group Summary:

- Importance of soil health and biodiversity.
- Look at measuring success and utilizing other programs and how they measure CSP.
- Biochar, utilizing Western Redcedar, can we use it for biochar? Can we ramp it up to larger-scale and regional production?
- Carbon capture: how do we look at CI scores and reg ag practices
- Is large-scale tech available?
- Soil microbiome programs that are incentivizing make sure our programs stand out. The program needs to be flexible.
- USDA process and farm sustainability.
- Farmers are getting the equipment. Are they utilizing it in precision ag.

Further Large Group Discussion:

- In priorities, we need to consider potential harm- e.g., and incentivizing digestors could lead to those getting bigger herds and increasing nitrogen, focus on pasture-based cattle
 - Are regionally-based digestors feasible?
 - Being done or proposed in other states, farmers are hauling manure anyway.
 - Better to clean the gas and inject it into a pipeline directly. would be efficient and should be explored.
 - Active in Missouri and Wisconsin.
- Larger systems question: Think of transportation, which is already used to transport it to where it's best used in the soil, which improves the soil microbiome, and what has the most value for different areas based on soil health.
 - With the use of precision ag, we can put the right nutrients on the right soil.
 - There is already not enough manure to cover our soils.
 - Should talk to people in the business already.
 - Digested manure can be used for fertilizer, but it is different. There is a decrease in organic matter, but the balance of nutrients should be relatively unchanged.
 - It is important to note digestors capture the methane; don't create it.
- California compliance credits, voluntary markets where gas is being sold, indirect Carbon Credit, and premium is paid for the gas.