

MEETING NOTES

Project Advisory Group Meeting

Development and Implementation of an Environmental Training Program for Manure and Compost Haulers/Applicators in the Texas High Plains

January 5, 2011

Welcome—Ben Weinheimer, Texas Cattle Feeders Association

Self Introductions

Opening comments—Dr. John Sweeten, Professor and Resident Director, Texas AgriLife Research; Ross Wilson, President & CEO, Texas Cattle Feeders Association

Project Goals/Tasks and Timeline – Brent Auvermann

Review of task list and timeline. Projected start and end times for each task. And level of completion as indicated by black highlighting. QAPP has been received back from the TSSWCB with comments. Will be edited by project team and returned to TSSWCB in next few weeks. EPA will have 30 days to review, comment and approve. Brent highlighted key tasks, including manure spreader calibration, project materials, demonstration sites, project website. Regarding the website, Texas Water Resources Institute has been contracted to develop, host and launch a project website. There has been a delay in TAMU installation of web servers. As such, TWRI will host the site and Brent will work with Jaclyn Tech to finalize website design/content in Feb 2011.

On-line Survey Instruments—Brent asked to PAG members to review the draft survey in their packets. The objectives of the surveys were discussed; types of surveys; ways of administering surveys (refer to slides).

T. McDonald: may be best to conduct personal interviews with manure/compost haulers, especially since there is a relatively small number of entities (~15 companies).

J. Sweeten: suggested edits. BWA – please provide comments by Feb. 17.

J. Sweeten: may be worthwhile to copyright the survey (to be discussed by TCFA/Texas AgriLife/TSSWCB).

Manure Spreader Calibration Trials and Manure Calibration Kits – Kevin Heflin

Kevin presented slides on manure spreader calibration trials and requested feedback on employee training, manure truck specifications, smartphone/computer applications, etc.

Marty Rhoades: WTAMU truck specifications – Mack CA600, 400 hp, 13 sp eaton-fuller, 323 rear-end, Morlang box HXD 24, no side rails, 2 horizontal beater bars, rheostat control chain speed. Typical manure load is 12-13 tons/load.

Kevin: Demonstrated 28”x28” and 56”x56” tarps; fish scale (digital); and 2.5 lb steel weights. Reported lessons learned and best results with 28”x112” tarp that is place parallel the direction of travel and allows truck to pass over without hitting the tarp.

J. Sweeten: would be good to repeat the measurements using other types of manure spreader trucks and compost spreaders. Kevin: agree. Project team plans to follow other types of trucks this year.

B.J. Schilling: have you considered a textured material (i.e., turf)...might help with wind and manure that falls-off the tarp?

T. McDonald: what were the issues with the smaller tarp 28"x28"?

Kevin emphasized the need to follow additional trucks this year, both manure and compost.

T. McDonald: question on load cells/GPS tracking. Marty: there is a company that has some of that technology available.

Demonstration Sites in Deaf Smith, Donley and Wheeler Counties – Ben Weinheimer

Dr. Sweeten: where does the runoff end up? What is the prospect of Oklahoma involvement vis-à-vis downstream "recipients" of Sweetwater Creek flow. Ben: We will engage those downstream neighbors. Donley: Buck Creek WS (303d history). Wheeler: Sweetwater Creek WS (303d history; spring-fed creek begins Gray/Wheeler line, flows into OK). Deaf Smith: Palo Duro Creek WS (no recent 303d history?). Geographic diversity across.

L. Gibson: How did we determine treatments for water runoff? Ben: Additional thoughts on compost treatment?

L. Gibson: Solubility of nutrients does not look comparable among treatments. 2 tons of compost seems a bit low to compare to 10 tons of manure; might consider bumping up the compost rate to 3 or 4.

Ben: Soil test results will be relevant here, 15x composites within each plot, high P variability across plots in top 6" of soil cores.

Overview of "Year 1" Soil Sample Results – Matt Davis

Matt presented slides on soil sampling methods and results.

D. Topliff: discussed 15 sub-samples on water quality treatment plots. Clarified with Matt that the 15 sub-samples were composited. May be worth time and expense to collect additional individual soil samples for soil phos. There is reason for the difference in the P levels and needs to be determined.

B.J. Schilling: Also noted that the higher P levels were in 0-6". So, the erosion and soil surface loss may be having a big influence.

B. Gibson: Double pass of sprinkler on the edge of windshield-wiper pivot could be relevant.

Also, the edge of field and spreader truck turn-around could be an issue on the edge of circle.

Additional soil samples will be collected in next 10 days or so to determine why we are seeing such variability in the soil composite samples. Then, decisions will be made about how to provide treatments.

T. Headings: Why not any dryland fields? Ben: focused on irrigated fields because of those fields receive most of the manure. We may be able to look into a dryland field.

T. Headings: What about areas of channel flow in Wheeler County? Will there be variability from year-to-year due to rainfall events and outside flow that might be coming into the channels?

Draft Environmental Surveys – Brent Auvermann

Brent presented the draft surveymonkey document. Is initially focused on survey for manure/compost contractors and haulers.

J. Sweeten: Need to ask “what indications do you use to determine whether or not spreader calibration is needed?”

B. Gibson: Would it be worth asking about whether or not they conduct soil tests? This type of question would go on both the contractor’s and farmer’s survey.

J. Sweeten: For buffer related questions, the responses need to be reported in ranges. What about a domestic well? Should that be a separate question?

T. Headings: Is the question on “fenceline” referring to “property fenceline?” BWA: We need to clarify that question.

Open Discussion, Comments and Suggestions

Next PAG meeting: Likely to be in the early Sept. timeframe with a field day mostly likely at the Deaf Smith County demonstration site.

**Possible upcoming meetings to capture survey responses:
TAIA annual meeting (Should a fourth survey be created for crop consultants?)
Plains Nutrition Council meeting – consultants**

Summary of Action Items/Key Recommendations

Environmental knowledge assessment surveys:

- **Determine how best to administer the surveys, especially as it relates to the manure and compost contractors (i.e., face-to-face interviews).**
- **Finalize environmental knowledge surveys (manure/compost contractors, farmers, feedyards and possibly a fourth survey for crop consultants).**

Manure/compost spreader calibration:

- **Conduct additional field-level manure and compost spreader truck calibration trials in coordination with manure and compost contractors.**
- **Evaluate options for using a textured surface, such as turf, in place of a smooth plastic tarp.**

Water quality demonstration site:

- **Conduct additional soil sampling at the water quality demonstration site to verify the apparent variability in soil test phosphorus levels as observed in the Dec. 2010 composite soil sample results.**
- **After additional soil test results are obtained, finalize plans for manure and compost treatments at the water quality runoff site. One recommendation was to increase the compost application rate from 2 tons/acre to 3 or 4 tons/acre.**