

**2012 NE 1041 Environmental Impacts of Equine Operations
Annual Meeting**
University of Vermont
August 13-15, 2012

Agenda

Confirmed Attendees:

Betsy Greene, UVM (Mon-Thurs)

Mike Westendorf, Rutgers (Arrive Mon PM, Leave Thurs AM)

Carey Williams, Rutgers (Arrive Mon PM, Leave Thurs AM)

Laura Gladney, Rutgers (Arrive Mon PM, Leave Thurs AM)

Krishona Martinson, Univ. of Minnesota (Arrive Mon 2:30 PM, Leave Thurs 9:55 AM)

Ann Swinker, Penn State (Arrive Mon 3:11 PM, Leave Tues 3:40 PM)

Amy Burk, University of MD (Arrive Sun PM, Leave Tues PM)

Rebecca Bott, South Dakota State University (Arrive Sun 10 PM, Leave Wed 5:32 PM)

Masud Hashemi, Univ. of Massachusetts, (Arrive Mon PM, Leave Wed PM)

Guest: **Lisa Wojan**, Veterinarian in CT (Arrive Sat, Leave Thurs PM)

Joining from distance:

Paul Siciliano, Univ. North Carolina

Nathalie Trottier, Michigan State University

Call in Number: 1-888-296-6500

Guest Pin 192776

(Host pin 1927764)

Tuesday Potential Guests:

VT Agency of Ag Deputy Secretary Diane Bothfeld and guest

UVM Center for Sustainable Ag personnel

August 13: Travel Day (Shuttle from airport to hotel –there is a phone center at baggage claim)

BEST WESTERN Windjammer Inn & Conference Center

1076 Williston Road

South Burlington, Vermont, 05403-5718

Phone: (802)863-1125 or (800)780-7234

August 14: Continental Breakfast at hotel

7:45 am: Van pick up at hotel reception to UVM Campus (Jeffords Hall)

8:00 am: NE 1041 meeting in 326 Jeffords Hall, UVM Campus

Work/Discussion Topics:

- State Reports
- Lit Reviews
- Other publications
- Grants

12:00-1:00 pm: Lunch (for 15 people)

Welcome by Dr. Andre Wright, Dept. Chair, Animal Science

1:00 pm Resume Agenda

- Rewrite of new project: Goals and Objectives, where we are, where we go
- ASAS and ESS poster/workshop?
- Outline for ESS and poster abstracts
- Focus Group

5:00 pm Dinner on Church St at VT Pub and Brew
(menu available online at: <http://www.vermontbrewery.com/menu>)

6:00 pm Sunset Cruise on Lake Champlain

Betsy Greene
Rebecca Bott
Amy Burk
Mike Westendorf
Carey Williams
Laura Gladney
Krishona Martinson
Masud Hashemi

August 15:

8:00 AM: Van pick up at Hotel

Vermont Equine Operations Tour

Spear Street Farm
UVM Morgan Horse Farm, Weybridge, VT
Triple Combination Farm, Ferrisburg, VT

~12:00 pm: Return to Burlington (airport/hotel drop off)

Afternoon trip to Tamarack Stables (Greene, Martinson, Westendorf, Williams, Gladney)

Travel to Strafford, VT for Evening Program:

"Clover in the Pasture: Good Forage or Toxic Plant?!"

Dr. Krishona Martinson, University of Minnesota

(When the Essex horse Nellie hit the VT press with supposed battery acid burns - re-diagnosed as photosensitive reaction to alsike clover, suddenly the clover that has been in pasture for years is bad...or is it?)

"Could Waste Products from Horse Farms be Poisoning Vermont's Compost?"

Dr. Mike Westendorf, Rutgers University

(Horses were named by Chittenden Solid Waste District as a contributor to compost contaminated by trace amounts of clopyralid and picloram (herbicides). We'll take a look at possible sources for the herbicides on horse farms.)

"Performance Horse Feeding Strategies and Supplementation"

Dr. Carey Williams, Rutgers University

(Information on what's "hot" and not...and if research backs the claims of the products)

"Soil and Pasture Tests for Dummies"

Laura Gladney, Rutgers University

(A quick primer on how to read and interpret results from soil and pasture tests)

August 16: Head for home...

Meeting Minutes

August 13, 2012: WCAX tv station interviewed Betsy Greene and Ann Swinker about the ongoing VT compost contamination controversy.

August 14, 2012:

In attendance: Betsy Greene (University of Vermont), Ann Swinker (Pennsylvania State University), Rebecca Bott (South Dakota State University), Masoud Hashemi (University of Massachusetts), Michael Westendorf (Rutgers University), Laura Gladney (Rutgers University), Carey Williams (Rutgers University), Amy Burk (University of Maryland), Krishona Martinson (University of Minnesota), Lisa Wojen (private practice veterinarian)

On conference call: Paul Siciliano (North Carolina State University)

Experiment Station Reports

South Dakota State University: Summary of Experiment Station, 2012

Rebecca Bott, Ph.D. 50% Extension, 45% Teaching, 5% Research

Efforts have included building a base of clientele for our "Healthy Lands, Healthy Horses" curriculum. We have obtained \$95,000 in SARE funds to support community learning projects on five host properties for three years. Recently, we are working with the SD Realtors Association to offer CE credits for realtors who want to learn about marketing/managing small acreages. In a collaborative effort with the SDSU Ag Engineering Department we have obtained funding to have students in equine and waste management classes design and implement manure composting demonstration

plots which will later be used for Extension programming. Finally, I have coordinated our NE-1041 pasture review “Production and environmental implications of equine grazing”. I need your help with final revisions and contributions this week.

Masoud Hashemi, University of Massachusetts

Have grants for two pilot farms. One is the University Equine Center, and educational farm. One is the Blue Star Farm draft rescue, which is overstocked with 40 horses and flanked by 3 rivers with a stream running through the middle of the farm. Horses have access to all wetlands and the stream. Testing 6 sacrifice lots with different footing materials. Trying a new pasture management lot, “Paddock Paradise” system. The group discussed the “racetrack” setup as a rotational grazing method. Masoud is also installing a composter for a EPA 319 grant.

Carey Williams, Rutgers University

NRCS CIG grant- Create a 592 (Feed Management) Program for horses. Did full nutrition consults and pasture evaluations; majority of farms did not take recommendations for either feed or pasture. Farms may be mowing more. Offered to give some cost-sharing money but farmers wouldn't put in any effort to make arrangements for lime applications. The group discussed compliance- may need to charge farmers for this service so they take it seriously.

Mike Westendorf, Rutgers University

Working on horse manure analysis using NIR. Looking at predictions for GE, NDF, BTU values, ash values. Anaerobic digester on horse farm (BioBeetle). Using straw bedding, hard to chop for digester. Streufex would work better but not widely used. Learn about anaerobic digestion at the EPA AgStar Program website (<http://www.epa.gov/agstar/anaerobic/faq.html>). Starting work on an Equine Environmental Stewardship Program, more intensive than Dairy of Distinction. Should look at HEAP program in CT (Jennifer Nadeau) and NTBA National Environmental Stewardship Awards. Vermont also trying a similar program including farm management and inspections.

Ann Swinker, Pennsylvania State University

“Implementing and Marketing Environmental Stewardship on Small Farms” program, partnered with NRCS. Four-day short course for horse farmers, good response and impact.

Compost Discussion

Secretary of Agriculture Chuck Ross, [title] Cary [last name], Sid Bosworth, and [??] joined the group for a discussion on the recent herbicide in compost problem. Mike Tetreault from Poulin Grain conference called in as well. Recap:

- There has been herbicide exposure in home gardens; vegetable plants dying after compost applied.
- Chittenden Solid Waste District tested compost samples and found clopyralid and picloram in compost. Grass clippings and horse manure tested positive for these chemicals
- Horse farmers have done nothing wrong; most times they have manure shipped off farm and don't know where it ends up. Some of these herbicides have pasture and hay uses.
- Bedding, hay, horse grain could all be sources of the chemicals; Purina grain tested positive and mentioned in news clip
- CSWD recently moved and started new composting practices- faster composting times could not break down chemicals completely. Composting could be amplifying chemicals as contents are concentrated.

- Why hasn't this come up in other states? Horse manure not being tested; being disposed of in different ways; centralized compost facilities not being used
- No human or horse health issues
- In middle of investigation, press is jumping to conclusions when none exist yet

Resume State Reports

Krishona Martinson, University of Minnesota

Pasture Evaluation Program: costs \$650 for a farm eval. Includes pasture, forage, soil samples; 2 visits from specialist, facilities assessment. Last year had 20 farms participate. Farms can also pay \$300 for a "maintenance visit" once per year after doing the full program. Krishona passed around a notebook made for one of the farms. Program was advertised in e-newsletter and Facebook. Grazing muzzle trial: used two preferred grasses (bluegrass, prostrate and fescue, upright) and two non-preferred grasses (ryegrass, prostrate and reed canarygrass, upright) and measured available forage before and after. If using a grazing muzzle, the type of grass makes a huge difference in how much forage the horse will consume. Mixture Trial.

Paul Siciliano, North Carolina State University

Working on refining methods for predicting pasture DMI and regulation of pasture intake.

Laura Gladney, Rutgers University

Master's project will compare effects of rotational and continuous grazing on pasture health, soil quality, horse health, and economic benefits. SARE Graduate Student Grant did not fund. Hoping next year's CIG grants will allow use of state lands. Group discussed methods for estimating available forage and pasture mixes.

Department Chair Dr. Andre Wright and Dairy Extension Specialist Julie Smith joined us for lunch.

NE 1041 Rewrite: We should finish by the end of our project in 2014 (every 5 years).

Review Articles: Articles with not enough "science" could be submitted to Journal of NACAA

- Pasture article: JEVS? Group spent some time incorporating several members' edits into this paper. Needs some more input, will set up conference calls to finish. Hope to submit by Oct 1.
- Manure paper: Mike Westendorf will send this out.
- theHorse.com: Wants regular articles on research (not Extension-type). Carey Williams and Mike Westendorf will do the first article on their nitrogen and phosphorus work.
- Publications for NE1041 report: Include peer reviewed and non (Extension pieces and newsletter articles). Emphasis on peer-reviewed.

ESS Workshop: Group wants to host a symposium at 2014 ESS on pasture topics. Must coordinate; most members cannot do both ASAS and ESS in same year. Could also try to get a keynote speaker separately, perhaps a livestock grazing expert to bridge the gap between livestock pasture research and equine. Workshop could cover pasture research techniques, then we can be consistent between livestock and equine forage research. Krishona Martinson will ask Production and Management Committee Chair. Perhaps propose someone as a keynote speaker (which is paid for) and hope for a workshop. Group decided to have a conference call about this by October 1.

Funding Sources:

- Ann Swinker uses Chesapeake Bay Trust grant, Fisheries and Wildlife, and NRCS CIG

- We need research on sacrifice lots and best management practices- EPA?
- It was suggested to contact watershed groups for funding
- Suggested funding for Laura Gladney's rotational grazing project: SARE Teaching and Research, CIG, USDA NIFA Rangeland Program
- Mike Westendorf helps NRCS by writing Comprehensive Nutrient Management Plans for some funding
- Krishona Martinson gets some handle money, uses Quarter Horse, Horse Council. Ideas: fertilizer check-off, Craig Shaeffer, fee-based seed companies. Also mentioned a retirement farm in Minnesota that takes all service horses (including research horses) from any state.
- National CIG grant will have same restrictions as state grants.

Group Leadership: Mike Westendorf suggested someone new take over the group. Duties include coordinating yearly meeting, getting USDA approval, and at least 2 conference calls per year. Also be careful not to overlap annual meetings within the same fiscal year. No one volunteered to take over. Mike said he is willing to continue providing leadership but wants to make sure we keep our direction fresh.

August 15, 2012: Group visited UVM horse farm and learned how cooperative students take care of their own horses during the school year plus some University-owned horses for Equus group to use on weekends. We saw heavy use pads in pastures.

The tour's second stop was the UVM Morgan Horse Farm where Director Steve Davis explained the history of the farm and gave us a tour. We watched him work some young horses and met the year's "raffle foal" UVM Uphold.

The third stop was Triple Combination Farm, where co-founder Chris Armstrong gave us a tour of the farm and explained the best management practices she has utilized, including rotational grazing and heavy use pads. She has worked closely with Betsy Greene to learn about these practices.

The final stop on the tour was Cedar Spring Farm, a large Morgan farm.

In the afternoon, NE1041 members Betsy Greene, Carey Williams, Mike Westendorf, and Krishona Martinson plus veterinarian Lisa Wojek traveled to Tamarack Farm to visit with Denny Emerson's adult day camp. After watching some dressage instruction and viewing the farm, the group visited the historic Justin Smith Morrill homestead and returned to the farm for dinner and brief presentations. Mike Westendorf discussed the compost contamination issue, Krishona Martinson discussed a case of alsike clover photosensitization recently featured in the news and quizzed campers on pasture weed identification, Laura Gladney discussed soil and forage testing and how to read test results, and Carey Williams discussed common supplements fed to performance horses. The campers appreciated the presentations and had plenty of questions.