

Engaging Farm Safety and Manure Management:  
Safety School  
2024 North American Manure Expo

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November 22, 2024

Livestock & Poultry Environmental Learning Community



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**PRO DAIRY**  
Dairy Environmental Systems Engineer



NM-P  
Nutrient Management  
Spear Program



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North American  
**MANUREXPO**  
Professionalism in Nutrient Management

Autumn 2024 New York

- First time for New York/Vermont to host this event – excited to make it a unique event for our local farmers, applicators and service providers.
- 2023 Safety School @ Wisconsin NAME as an inspiration.
- Wanted safety to be a major theme throughout the event, beyond Safety School
- A major manure accident brought this to another level – brought interest, engagement and “the why”



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**PRO DAIRY**  
Dairy Environmental Systems Engineer

**SAFETY SCHOOL**  
WEDNESDAY, JULY 17 | 3:00 PM

Join us for an interactive and engaging session on one of the most important topics in dairy farming: safety. This session will focus on the latest research and best practices for preventing manure-related accidents, including the use of safety equipment, proper handling techniques, and the importance of safety training. We will also discuss the latest research on the health and safety of dairy workers and the impact of manure on the environment. This session is designed to be a practical, hands-on learning experience for all attendees.

**REGISTRATION & SPONSORSHIP**  
Sponsor: The Dairy Systems Training LLC  
Contact: Kelly Smith, ksmith@ds-training.com

**CONFERENCE & SPONSORSHIP**  
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Contact: Kelly Smith, ksmith@ds-training.com

**AGRICULTURE & ENVIRONMENT & POLICY**  
Sponsor: The Dairy Systems Training LLC  
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CRIME & SAFETY

Two who died in Central NY manure tanker mishap were volunteer firefighters, farmers, friends

Updated: Jun 16, 2024, 7:59 p.m. | Published: Jun 15, 2024, 10:47 a.m.



By Rylee Kirk | rkirk@syracuse.com and Fernando Alba | falba@syracuse.com

Clinton, N.Y. — Two men who died in a manure tanker accident in Central New York were firefighters, farmers and good friends. Nathan Doody, 33, of DeRuyter, and Tyler Memory, 29, of Tully, were found unconscious Thursday morning inside a manure tanker at Champion Farm in Clinton, police said. They were transported to the Wynn Hospital in Utica, where they were pronounced dead, police said.



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**PRO DAIRY**  
Dairy Environmental Systems Engineer

Safety School 2024  
Dedication to Nathan & Tyler

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The archived presentation is available at: <https://lpehc.org/archived-webinars/>

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**BEYOND Safety School:**

- Safety Green Shirts
- Signage, life ring @ manure pit
- Gas Meters at Agitation Demonstration
- Spill Response Demonstration (and keychains)
- Safety Themed Workshop Tent
- Skin Cancer Screenings
- Do Not Enter Stickers for tanks
- Local rescue staff on site at all times





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**Safety as a focus at NAME 2024**

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**Team effort** – local planning committee, presenters, exhibitors, law enforcement, local fire, manure handling professionals, more

- Estimated 300 people attended SS... afternoon of Day 1 at NAME  
*(roughly 800 people attended NAME on Day 1)*
- 3 groups that rotated through the stations
- Credits: CCA, PA, Confined Space Training Cert.
- Grand finale was the pressurized drag hose release...kept people there until the end

< *Milton, our safety mascot (crash test dummy)*



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**Station 1 – Confined Space Entry & Gas Meters**

- Charismatic presenter (Tom Basher)
- Added other practitioners... Dival Safety, Walter Grose
- 114 people from 43 farms/businesses received confined space training certificates
- Utilized this as an opportunity to train local fire departments



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**Station 2 –  
Ag Truck and Equipment Road Safety**

- A farm truck with a couple real world issues
- Tractor and implement
- State Troopers (current) and retired





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**Station 3 –  
Dragline & Pump Safety**

- Practitioner as presenter
  - Credibility
  - Be sure to provide outline of talking points
- Did a good job of basics/101, not too many war stories
- Compelling, kept the crowd's attention



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**Pressurized Hose Release Demonstration**



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### Pressurized hose blowout





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### Local First Responder, Safety and Ag Professional Cross-Training



Evening after Expo grounds closed facilitated a manure tanker rescue and manure tanker body extraction training.

- Safety professionals – confined space rescue
- Agricultural professionals – tanker designs
- Fire department – rescuers



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START TIME	Day 1
7:30 AM	Tour check in and registration opens
8:00 AM	Sunnyside Farms tour departs Aurora Ridge Dairy/Lincoln Dairy tour departs
8:15, 9:15 and 10:15 AM	Patterson Farms tour departs
8:30 AM	DuMond Grain Farms and Spruce Haven Dairy tour departs
11:00 AM	Expo grounds and tradeshow opens
12:00 PM	Tent 1: Industry session: Puck's Pump School Tent 3: Industry session: Improving soil nitrogen management, Soil Regeneration Unlimited
1:00 PM	Agitation demonstrations
2:00 PM	Separation demonstrations
3:00 PM	Safety school: on-scene safety, confined space training, road safety, truck inspection and pressurized hose release demo
5:00 PM	Expo grounds close
5:30 PM	BBQ and networking (see page 24 for details)

TIME	TEST SPONSOR: PUCK ENTERPRISES	TEST SPONSOR: REV LING	TEST SPONSOR: SOLI REGENERATION UNLIMITED	Day 2
8:00 - 8:30	Agitation road damage demo	Safe Self-Healing Agitation (Puck Enterprises)	In season manure application (Puck Enterprises)	Agitation that first also only manure management (Puck Enterprises)
8:30 - 9:00	Real safety (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
9:00 - 9:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
9:30 - 10:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
10:00 - 10:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
10:30 - 11:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
11:00 - 11:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
11:30 - 12:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
12:00 - 12:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
12:30 - 1:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
1:00 - 1:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
1:30 - 2:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
2:00 - 2:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
2:30 - 3:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
3:00 - 3:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
3:30 - 4:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
4:00 - 4:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
4:30 - 5:00	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)
5:00 - 5:30	Safe Self-Healing Agitation (Puck Enterprises)	Rescue to separate manure from manure application (Puck Enterprises)	Whole farm approach to manure application and manure management (Puck Enterprises)	Realistic simulation of manure application (Puck Enterprises)



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**Other SAFETY Programming**

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The archived presentation is available at: <https://lpehc.org/archived-webinars/>

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**NYSDEC Spill Response Protocol**

- CA/Q/CNMP must include Emergency Action Plan:
  - Cleanup eqpt. locations
  - Map of water resources
  - Areas that can receive spilled manure
  - Emergency contacts (central, all lang.)
- 24-Hour reporting
- 5-day reporting





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**Spill Response**

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TIME	TENT SPONSOR: PUCK ENTERPRISES	TENT 5 RE
8:00 - 8:30	Avoiding road damage David Orr	Dairy Soil W Project - f emissio cropp VIC
8:30 - 9:00	Road safety Troyers: Robert Leach and Paul Hayes	Biochar emission app Carol Adair
9:00 - 9:30	John's disease management: Findings and farmer perspectives Whitney Hull	Manure greenhou and clim Jason Oll
9:30 - 10:00	LEAN systems' approach to farm safety Richard Stup	Manure support to and optim an Jacob H



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**Safety Workshops**

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**DANGER**

Tank may contain  
toxic gases.



**DO NOT ENTER**

Read Operator's Manual  
for safety information  
and operating, servicing  
and maintenance  
instructions.



**PELIGRO**

El tanque puede contener  
gases tóxicos.



**NO ENTRE**

Lea el Manual de Operación  
para aprender información  
de seguridad e  
instrucciones de operación,  
servicio, y mantenimiento.





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**Stickers for Tanks**

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- Large appetite for this information
- Need to do a better job with agitation demonstration:
  - signage and info on H2S,
  - those with meters needed training,
  - walkie talkies to communicate between audience and demonstrators,
  - have a plan for crowd movement





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What we learned

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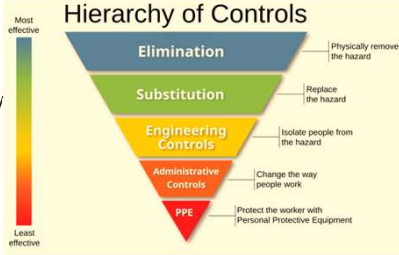
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**Building a culture of safety**

- Safety talks to middle managers, farm advisors to build a "culture of safety"
- Connecting farmers to safety equipment providers
- Short videos on safety
- Crop and Shop talks directly to farmers.
- Hierarchy of Controls





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What's Next??

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Education & Applied Research

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2024 Manure Expo by the Numbers!

- 1300 attendees from 36 states and provinces across North America
- 300 people attended Safety School with three stations and a rapid hose release
- 205 people on 4 tours
- 225 people attended the BBQ
- 114 people from 43 farms/businesses received confined space training certificates
- 112 Certified Crop Adviser, manure applicator, nutrient management, odor management and farmer training credits offered
- 110 staff, committees & volunteers to make the show happen!
- 81 Exhibitors
- 60 skin cancer screenings
- 18 workshops with 35 presenters
- 15 research posters
- 8 solid manure application demonstrations • 1 auto precision soil sampler
- 8 liquid manure application demonstrations
- 6 agitation demonstrations
- 4 manure separator demonstrations
- 1 horse-drawn spreader



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