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Peecycling Urinal at Hermit

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Learn about our Bellows

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•

water!

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Our Research Results

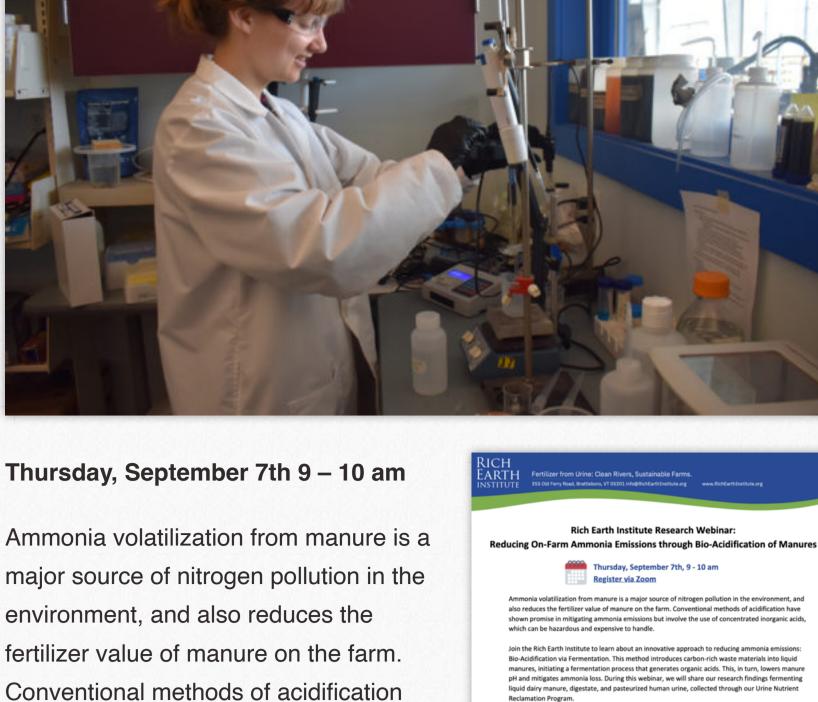
Rich Earth in the News

Howdy, Julia Cavicchi 🙎 🔍

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# Webinar: Reducing On-Farm Ammonia Loss From Manure through Fermentation Using Whey & Paper Fibers Posted by Julia Cavicchi on August 22, 2023

**PUBLICATIONS** 



ammonia emissions but involve the use of concentrated inorganic acids, which

have shown promise in mitigating

can be hazardous and expensive to handle. Join the Rich Earth Institute to learn about an innovative approach to reducing ammonia emissions: Bio-Acidification via Fermentation. This method introduces carbon-rich waste materials into liquid manures, initiating a fermentation process that generates organic acids. This, in turn, lowers manure pH and mitigates ammonia loss. During this webinar, we will share our research findings fermenting liquid dairy manure, digestate, and pasteurized human urine, collected through our Urine Nutrient Reclamation Program. What will be covered:

 Case studies assessing on-farm feasibility with farmer-partners and advisors
 Lab trials testing optimal recipes using three waste materials: acid whey, sweet whey, and short paper fibers (pulp sludge) • Interactive Q & A and Discussion, featuring perspectives from participating farmer-partners in **REGISTER** 

Introduction to bio-acidification and its potential benefits

sweet whey, and short paper fibers (pulp sludge) Insights from farmer interviews in Vermont Interactive Q & A and Discussion, featuring perspectives from participating farmer-partners in this project **Recording:** Reducing On-Farm Ammonia Emissions throu.....

manure from the barn is sent to the

storage pit. Whey could be added here.

## Sustainable Agriculture Research and Education program under subaward number ONE21-402. Any opinions, findings, conclusions, or

Note:

This material is based upon work supported by the National Institute of Food

recommendations expressed in this webinar are those of the speakers and do

and Agriculture, U.S. Department of Agriculture, through the Northeast

not necessarily reflect the view of the U.S. Department of Agriculture.

### Education (6) Events (19) Gardening (4)

Guest Post (4) Kim in Kenya (9) Latest News (35) Our Team (5) Research (13) Technology (1) **Uncategorized (16)** Youth (2) **Recent Posts** Abe Presents Keynote at Australia Conference on Urine Recovery Rich Earth Summit: Nov 7-9, 2023

### through Fermentation Using Whey & Paper Fibers

Webinar: Reducing On-Farm

**Ammonia Loss From Manure** 

Peecycling in the Valley: **Community Conversations for** Franklin County, MA We're Hiring! Urine and Wool in the Rich Earth **Demonstration Garden** Urine Fertilizer at Yellowbud Farm Partner spotlight: Peecycling in Cape Cod Community Connection at the Rich Earth Jubilee Rich Earth Jubilee: A Celebration of Local Food Cycles Watershed-Friendly Gardening Nine Urine Pasteurizers Sold Save the date! Rich Earth Summit: Nov 7 – 9, 2023 New SARE Research Project Exploring Biochar from Biosolids **Seated Pee Toilet** Peecycling Urinal at Hermit **Thrush Brewery Teaching Future Peecyclers** Urine Recycling Now Open in Rockingham Open House and Global Urine **Research Summit** Resource-Recovering Portable **Toilets** Rockingham Depot Grand **Opening Brightwater Tools Spin-Off Seeks** Software Developer Anthro-vermi-ponics Subsidies for a Urine Diverting **Toilets in Vermont** Rich Earth Spinoff, Brightwater Tools, receives \$1M NSF **Funding** 

**Urine Fertilizer Collectors on Etsy** Flush: The Documentary Screening & Panel Conversation Learn about our Bellows Falls Expansion! Poets for Peecycling: 2022 Urine **Donor Kickoff Webinar Series** Vermont: Stop Landfilling **Compost From Composting Toilets** Global Shortage, Bodily Abundance: Urine Fertilizer Could Help Address Urea Crisis Community Urine Recycling **Program Update** Urine Nutrient Recycling on World Toilet Day Rich Earth Summit 2021 **New Peer-Reviewed Publication** Farm Field Day **New Social Research** Publication! Infrastructure Bill and VT Wastewater Urine Donor Kick-Off 2021 **MLK Day** Flush Away 2020 with a Game Spread Pees & Love this Holiday Season World Toilet Day & Trans **Awareness Week Executive Director Announcement** All People Pee! Peecycling & Bicycling Pharmaceutical Field Trials Launching the Gold Ribbon Commission 2020 Rich Earth Virtual Summit: Reclaiming Urine as a Resource New Farm Research Project! Rich Earth in Solidarity 'Urine My Garden' Workshops **Small Business Innovation** Research grant from NSF! Putting Down Roots – Building **Purchase** Peecycling in a Pandemic **Springtime Field Applications Urine Donor Kick-Off** "No Innovation Without Representation" New Publication! Village Sanitation Pilot Study Farm Research "lck Factor"? **Board Retreat** 2019 Harvest in the **Demonstration Garden** Continued Support for Peecyling in VT from Long Island Sound The 2019 Rich Earth Summit is **Quickly Approaching!** 

Our Summer Interns are

Amazing, and Pursuing

April 13th: Public Party,

Performance, & Presentations In

Rich Earth Institute Receives

Island Sound Future's Fund

2018 Summer Interns

Multiple Awards From the Long

Non-grid Solutions for the Future

of Urban Water Management

Team R2D2 designs urine

The Blue Whales Present:

2017 North Quabbin Garlic and

3rd Annual Urine Diversion

**Unveiling of New Urine Depot** 

Strolling of the Heifers 2017

Residency in Yellow Springs,

Welcome to our new Research

Rich Earth team travels to

**Environmental Science &** 

**National Science Foundation** 

2016 Urine Diversion Summit

**New Grants Support Summer** 

Rich Earth Ecosanitation-Ladies

Liquid Gold – Spring Pump Out

Going Beyond the Toilet at North

East Sustainable Energy Alliance

Congratulations to the 2015 Rich

World Toilet Day 2015 — Guest

Urine Diversion – Moving Ahead!

Earth Piss-Off winners!

Last post from Kenya

Last day of meetings!

Visits to the World Bank and

Water Services Trust Fund

Rich Earth Recognized

Leaving next week for Nairobi!

Peecycling in Kitere

**Umande Trust** 

Visit to Sanergy

Here we go.....

**Board Retreat** 

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August 2023

July 2023

June 2023

September 2023

- Culminating Spring Events

**Technology Publication** 

Spring Pump Out 2017

**Operation Porta Potty** 

Interesting Projects...

Putney for Pee!

Conference

diverting toilet

Biozoners!

Summit

Ohio

Center

Michigan

Grant

Research

(NESEA)

Posting

May 2023 March 2023 February 2023 January 2023 November 2022 October 2022 September 2022

August 2022

July 2022

June 2022 April 2022 March 2022 February 2022 December 2021 November 2021 October 2021 September 2021 June 2021 May 2021 April 2021 January 2021 December 2020 November 2020 October 2020 September 2020 August 2020 July 2020 June 2020 May 2020 March 2020 January 2020 December 2019 November 2019 September 2019 August 2019 **April 2019** January 2019 July 2018 April 2018 March 2018 December 2017 November 2017 October 2017 September 2017 July 2017 May 2017 April 2017 January 2017

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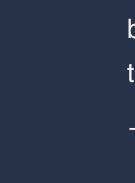
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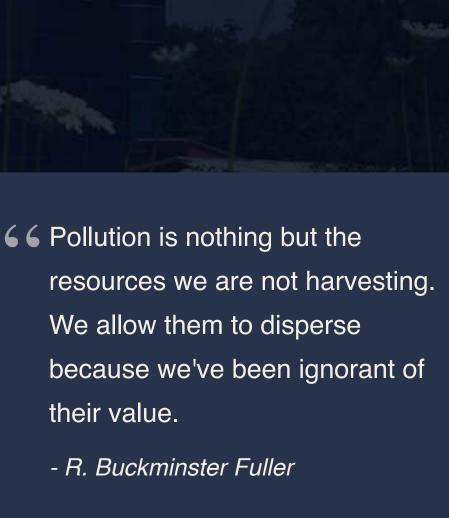


Last name





Your email address



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• Introduction to bio-acidification and its potential benefits Case studies assessing on-farm feasibility with farmer-partners and advisors • Lab trials testing optimal recipes using three waste materials: acid whey,

Research Center: 355 Old Ferry Road Brattleboro, VT 05301 PO Box 8003

Mailing address: Brattleboro, VT 05304 info@richearthinstitute.org 1-802-631-0196

Join our email list:

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First name

**Donate Urine** 

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## Rich Earth Institute Research Webinar: Reducing On-Farm Ammonia Emissions through Bio-Acidification of Manures



Thursday, September 7th, 9 - 10 am Register via Zoom

Ammonia volatilization from manure is a major source of nitrogen pollution in the environment, and also reduces the fertilizer value of manure on the farm. Conventional methods of acidification have shown promise in mitigating ammonia emissions but involve the use of concentrated inorganic acids, which can be hazardous and expensive to handle.

Join the Rich Earth Institute to learn about an innovative approach to reducing ammonia emissions: Bio-Acidification via Fermentation. This method introduces carbon-rich waste materials into liquid manures, initiating a fermentation process that generates organic acids. This, in turn, lowers manure pH and mitigates ammonia loss. During this webinar, we will share our research findings fermenting liquid dairy manure, digestate, and pasteurized human urine, collected through our Urine Nutrient Reclamation Program.

### What will be covered:

- Introduction to bio-acidification and its potential benefits
- · Case studies assessing on-farm feasibility with farmer-partners and advisors
- Lab trials testing optimal recipes using three waste materials: acid whey, sweet whey, and short paper fibers (pulp sludge)
- Insights from farmer interviews in Vermont
- Interactive Q & A and Discussion, featuring perspectives from participating farmer-partners in this project

**REGISTER** 

