



The [Rich Earth Institute](http://richearthinstitute.org) offers educational events and resources for learning about watershed health, sustainability, and ecological sanitation. Through the lens of “peecycling,” Rich Earth engages people in thinking about water conservation and watershed health, the nutrient cycle, food production, infrastructure, and community resilience.

Why urine?

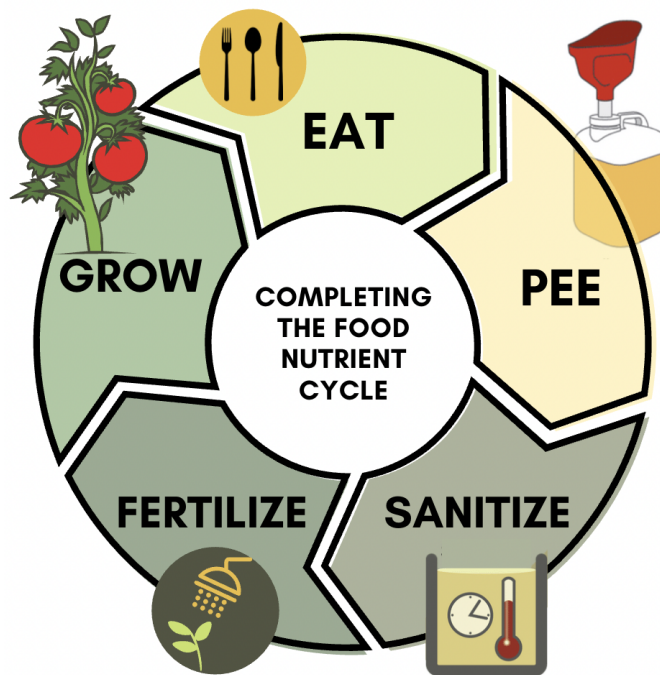
Human urine contains vital plant nutrients. When flushed, urine wastes precious potable water and can contribute to downstream nutrient pollution. But when urine is reclaimed as a fertilizer, it can be used to grow more food, thereby completing the local food nutrient cycle. Rich Earth operates a community-scale urine recycling program based in Brattleboro, VT which serves as its platform for research and education.

What does Rich Earth offer?

We take a collaborative approach to education. Rich Earth is eager to partner with diverse organizations (garden clubs, watershed groups, and schools) to develop an event that works best for you. All webinars can also be offered as in-person workshops or presentations for partners in the Brattleboro, VT area.

Contact

Please get in touch with Rich Earth’s education director Julia Cavicchi at julia@richearthinstitute.org to coordinate an event and discuss pricing.



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1 - Gardens & Farms

Urine Fertilizer for Home Gardens Webinar

This webinar covers [why & how to fertilize your garden with urine](#). Reclaiming urine as a fertilizer is a safe and simple practice that gardeners everywhere can learn to access an abundance of free fertilizer – and prevent downstream pollution. This webinar covers Rich Earth’s agronomic and social research results and step-by-step instructions for using urine in home gardens. It introduces Rich Earth’s [Home Gardening Guide](#) (details below) and concludes with inviting participants to contribute to Rich Earth’s [Community Science Survey](#) (details below).

Urine fertilizer is safe to use in home gardens. The [World Health Organization](#) supports this practice if the urine comes from the same household that will be eating the produce and basic guidelines are followed.

Guide: Urine for Home Gardens

Rich Earth’s [step-by-step guide](#) explains how to safely and effectively fertilize with urine in the home garden. These are available digitally or as a print booklet.

Community Science Survey

This [community science survey](#) will contribute to the growing body of knowledge about where, how, and why people fertilize with urine in their home gardens around the world. While we know urine is used by many, we have little detailed information about specific practices. This survey gathers gardener experiences to help grow the understanding of how urine works for different crops, in varying conditions and will inform our educational efforts. Partners are invited to disseminate this survey with their networks.



Urine Fertilizer and Pharmaceuticals Webinar

What happens to the medicine in our urine? Is urine that contains pharmaceuticals safe to use as a fertilizer? We’ll share what Rich Earth has learned from six years of research in partnership with the University of Michigan to answer this question - and what new questions we still have.

Urine Fertilizer for Community Gardens Webinar

Rich Earth staff will introduce the possibility of using urine fertilizer to support nutrient cycling in community gardens as a strategy for building resilience. We will present information about some of the best practices for fertilization and how to sanitize urine for use on a community scale (through storage or pasteurization). We will then facilitate

discussion with community garden participants about whether and how to implement this practice, including considerations of communication with the broader community about the practice, various cultural perspectives on the issues, and questions and concerns of participants.

Urine Fertilizer for Farms Webinar

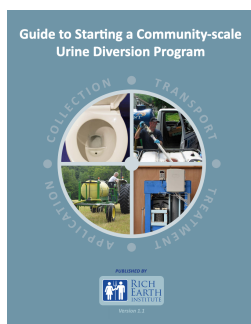
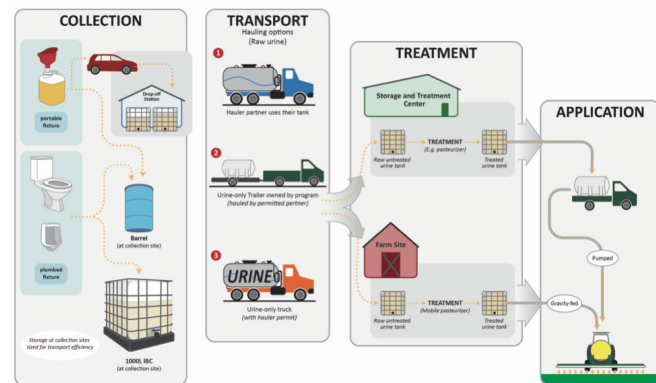
Rich Earth offers presentations for small-scale farmers about urine fertilization. We will share what we have learned from eight years of farm partnerships in Brattleboro, VT, including insights from agronomic and social research with farmers, as well as guidance and assistance with on-farm application, and/or opportunities to collaborate to develop tools for communication and education about urine fertilizer.

Rich Earth has opportunities for Brattleboro-area farmers to receive sample quantities of pasteurized urine from Rich Earth's community collection program to trial in on-farm test plots.

2 - Communities

Community Scale Urine Nutrient Recycling Webinar

This webinar provides a guide (details below) to community organizing strategies for creating urine nutrient recycling programs. Rich Earth will share insights from their own journey to create a community program in Brattleboro, VT. This webinar includes a screening of a [short film](#) introducing Rich Earth and the reasoning behind urine nutrient reclamation. The webinar highlights the roles of different stakeholders, as well as technology needs, regulatory requirements, and changing perceptions related to overcoming the “ick” factor.



Guide: Community-scale Urine Recycling Program

This [guide](#) covers the process of starting up a community-scale program and key elements of its operation. These include technical details for processes and equipment, regulatory and economic considerations, and the human factors that come into play—including effective education and community outreach and building relationships with farmers.

Urine Reclamation For Our Climate Webinar

This webinar examines how our climate is affected by the fertilizer industry, conventional wastewater management systems, and modern agricultural practices. The webinar then focuses on how urine recycling can help build local climate resilience through protecting water resources and supporting nutrient sovereignty.

3 - Additional Services

Consultation

Rich Earth can offer consultation services for individuals, businesses, and organizations interested in implementing urine nutrient recycling at different scales. Contact info@richearthinstitute.org with inquiries.

Become a Urine Donor

Rich Earth always invites new participants to join our flagship urine-recycling initiative in the greater Brattleboro, Vermont region. [Learn more about becoming a urine donor.](#)

Get a Urine Collection Unit

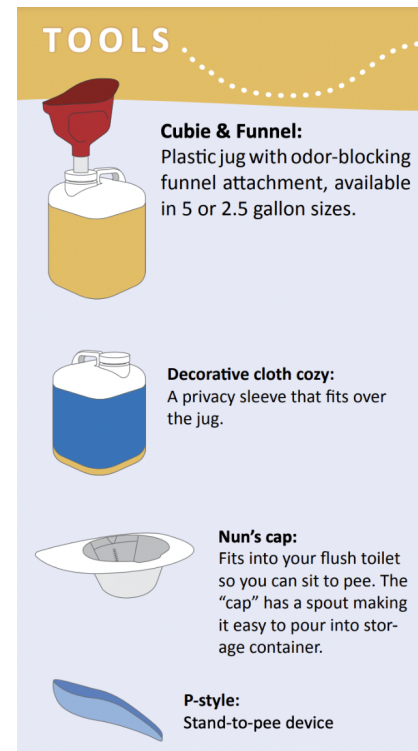
Rich Earth's 'Cubie & Funnel' design has been perfected over the years for the purpose of home scale urine collection. Available in 2.5 or 5 gallon sizes.

Get a Urine Diverting Toilet

Rich Earth also installs permanent urine-diverting toilet or urinal collection systems in private and public buildings. To learn more, get a site visit, or join our waiting list of interested sites, email info@richearthinstitute.org.

Portable Toilets

Rich Earth offers urine collecting & sawdust composting portable toilets in the greater Brattleboro, VT area. Contact toilets@richearthinstitute.org with inquiries.



URINE COLLECTING & SAWDUST COMPOSTING

PORTABLE TOILETS

