



**NOFA Vermont**  
**PO Box 697**  
**Richmond, VT 05477**

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# NOFA-VT Fall Workshop Series

**FOR COMMERCIAL FARMERS**

Practical Soil Science • Trades Skills



# Quick & Dirty

## Practical Soil Science Series for Farmers

Successful production starts with feeding the soil. Learn how to work with natural processes taking place in the universe below our feet while keeping an eye on financial returns to improve ecological production. This two-day intensive will help you consider the elements of a practical, financially-sound, sustainable management plan to address nutrient needs and soil health on your farm. Presented by soil scientists and experienced farmers with homework & handouts, lecture & break-out groups. **Cost: \$50/workshop for NOFA-VT members, \$60 for non-members. Lunch included.**



### Part I: Soil Nutrient Management

**Thursday, October 8, 10am-3:30pm**

New requirements about nutrient management based on the proposed water quality bill place new attention on soil fertility management. Dive into soil science to gain a better understanding of soil test results from pH to micronutrients, select and calculate amendments while keeping an eye on cost, source, timing and yield benefits. Bring your soil test results.

### Part II: Supporting Biologically Active Soils

**Wednesday, October 28, 10am-3:30pm**

The sustainable farmer's goal is to create soil biodiversity. Delve into the many ways to support the soil web with combinations of cover crops, rotations, animal manures, compost and appropriate equipment use. We'll discuss practical considerations like timing, tillage and limited land access.

*Location for soil workshops:*  
**Langevin House, 593 Furnace St.,  
Vermont Tech, Randolph, VT**

#### INSTRUCTORS



**Heather Darby** is an agronomic and soils specialist for the University of Vermont Extension who grew up on a VT dairy farm. She conducts outreach programs on soil health, nutrient management, organic grain and forage production, and oilseed production.



**Sosten Lungu** is a certified nutrient management specialist and instructor of agronomy at Vermont Technical College. Sosten's major interests are in nutrient cycling and management of nutrients to reduce environmental degradation.

#### GUEST PRESENTERS

**Brent Beidler** and his wife, Regina, own and operate a 40 cow organic dairy farm in Randolph Center. They have been certified organic since 2000 and the Beidlers milk currently goes into Organic Valley's Grass Milk, a 100% grass fed milk. *(Presenting at October 28 workshop.)*

**Becky Maden** farmed for 10 years on the sandy soils of the Intervale Community Farm in Burlington before joining her husband to farm the certified organic heavy clay soils at the edge of Lake Champlain in Orwell, VT. She works

part time with UVM Extension on soil fertility and nutrient management. *(Presenting at both soil workshops.)*

**Paul Sachs** is founder of North Country Organics, a Bradford, VT based manufacturer and supplier of natural land care products. Paul has studied natural soil system dynamics for over 30 years and is considered one of the country's foremost authorities on organic land care. *(Presenting at October 8 workshop.)*



# “Why Isn’t This Thing Working?”

## Trades Skills Workshops

Whether you have years of suffering already under your belt gained by experience, or you’re in your first few years of farming, these workshops will teach you the tricks of the trades with practical farm-based applications. Learn how to think like a mechanic and a detective. Workshops include a hands-on component taking apart and examining the guts of broken equipment. **Cost: \$100/workshop for NOFA-VT members, \$120 for non-members. Lunch included.** Maximum 15 participants per workshop.

### 1. Getting Intimate with Diesel Engines

*Wednesday, October 14, 9:30am-4pm*

*Instructor: Roger Howes, Vermont Tech Professor*

Ping-Rattle-Pop! Stall. Water in the fuel line? Clogged filter? Learn how diesel tractor systems work, from starter to fuel, power train to hydraulics. Assess the source of common problems and get trained in key maintenance to avoid them. Includes hands-on lab with multiple tractors of various vintages.

### 2. Gas-Fueled Machines: Tractors, Pumps & Friends

*Thursday, November 5, 9:30am-4pm*

*Instructor: Roger Howes, Vermont Tech Professor*

The hip bone’s connected to the thigh bone. The cylinder’s connected to the carburetor. Or is it the piston? Learn how gas systems work with examples like small tractors, trucks, rototillers & pumps. Gain investigative & troubleshooting skills for all systems. Conduct preventive maintenance, and practice taking apart and putting parts back together in this hands-on lab.



### 3. Why Doesn’t This Thing Turn On: Dealing with Electrical Problems

*Thursday, November 12, 9:30am-4pm*

*Instructor: Jan Ruta, Master Electrician*

Yikes, electrical. Serious stuff worthy of feeling wary. In order to troubleshoot or even hire an expert, it helps to know the basic concepts. Learn how electricity works and understand key on-farm electrical components like the anatomy of a circuit, panels, conduits, junction boxes & motors used in the greenhouse, barn & cooler. Troubleshoot common problems with our hands-on component.

### 4. Tricks for Taking Apart & Fixing Rusted Parts

*Thursday, November 19, 9:30am-4pm*

*Instructor: Roger Howes, Vermont Tech Professor*

Every farmer has wanted to tear their hair out when that key piece of equipment doesn’t work. Learn how common components function, then how to efficiently & systematically repair stubborn parts on equipment from manure spreaders to cultivators including bearings, seized bolts, bushings and gear boxes using essential tricks. Get on the road to becoming a grinder-wielding, torch-flame-throwing, torque-wrench-driving expert.

*Location for trades workshops:  
Vermont Tech, Randolph, VT*

#### INSTRUCTORS

**Roger Howes** is professor of mechanical engineering at Vermont Technical College who holds a degree from Dartmouth College, but learned most of what he knows from experience.

**Jan Ruta** is owner and operator of Jan Ruta Electric and Master electrician with 15+ years experience. Jan has taught a variety of classes at Yestermorrow, Vermont Works for Women and area technical centers.



*Jan Ruta*



*Roger Howes*

# NOFA VERMONT FALL WORKSHOP SERIES

## Registration Form (or register online at [www.nofavt.org/fallworkshops](http://www.nofavt.org/fallworkshops))

Please use a separate form for each attendee. You may print additional forms at [www.nofavt.org/fallworkshops](http://www.nofavt.org/fallworkshops)

Walk-ins are welcome on the day of the workshop, pending space availability; however, preregistration is required to guarantee lunch.

**Name of Attendee:** \_\_\_\_\_

**Farm/Business:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

Dietary restrictions:  Gluten-free       Vegetarian

<b>Choose Your Workshops</b>	<b>NOFA-VT Members</b>	<b>Non-Members</b>
Quick & Dirty: Practical Soil Science — Part I: Soil Nutrient Management	<input type="checkbox"/> \$50	<input type="checkbox"/> \$60
Quick & Dirty: Practical Soil Science — Part II: Supporting Biologically Active Soils	<input type="checkbox"/> \$50	<input type="checkbox"/> \$60
Why Isn't This Thing Working? — 1. Getting Intimate with Diesel Engines	<input type="checkbox"/> \$100	<input type="checkbox"/> \$120
Why Isn't This Thing Working? — 2. Gas-Fueled Machines: Tractors, Pumps & Friends	<input type="checkbox"/> \$100	<input type="checkbox"/> \$120
Why Isn't This Thing Working? — 3. Why Doesn't This Thing Turn On: Electrical Problems	<input type="checkbox"/> \$100	<input type="checkbox"/> \$120
Why Isn't This Thing Working? — 4. Tricks for Taking Apart & Fixing Rusted Parts	<input type="checkbox"/> \$100	<input type="checkbox"/> \$120
SUB-TOTAL:		
<b>Not a member? Become one today! Choose your membership level:</b>		
Individual (1 adult receives discount)	<input type="checkbox"/> \$40	
Family (2 adults receive discount)	<input type="checkbox"/> \$55	
Farm (4 adults receive discount)	<input type="checkbox"/> \$65	
Business & Organization Partner (4 employees receive discount)	<input type="checkbox"/> \$100	
<b>TOTAL:</b>		

**Please send checks made out to NOFA Vermont to:**



NOFA Vermont Fall Workshop Series  
PO Box 697, Richmond, VT 05477

**Thanks to our series partner:**

**VERMONT TECH**  
INSTITUTE FOR APPLIED AGRICULTURE  
AND FOOD SYSTEMS

**PLEASE VISIT [WWW.NOFAVT.ORG/FALLWORKSHOPS](http://WWW.NOFAVT.ORG/FALLWORKSHOPS) TO REGISTER AND PAY ONLINE!**