

No-Till for the Small Grower Comes Out of the Box

GUY STEUCEK

Massachusetts Correspondent

ORANGE, Mass. — The small grower and home gardener will run to the rototiller in the spring to produce a beautiful homogeneous seed bed, soft and ready for planting. Once the soil has been flogged into submission, much of the soil life is lost, especially worms. Is there a gentler, kinder way to work with soil?

Certainly, the no-till methods used on large farms generate soil structure that promotes fertility, but they require expensive iron.



Removing a layer of snow and the remaining cardboard reveals a community of earthworms at the soil surface.

Ricky Baruc has been growing soil using low-tech, no-till methods for more than a decade with astounding results.

Unable to afford real farm land, Baruc and his wife, Deb Habib, homesteaded on some rocky glacial till long abandoned by Revolutionary-period farmers in Orange. When confronted with "subsoil," they had to "think outside the box." In fact, Baruc said, "We have to break down the box. The bottom line of the method is not disturbing the soil."

"The objective was to create self-sustaining gardens that eliminate machinery and fossil fuels, reduce weeding, conserve water and create fertile soil. The cardboard method is a great way to build soil," said Baruc.

The method is simple, he said, and variations on the cardboard theme can address needs of various crops and growing conditions.

First, find a supply of cardboard with non-toxic ink and free of plastic coating or wax-treated surfaces. Then put down a layer or two over the plot. Cover with a few inches of mulch hay or leaf mold.

"In a few days the worms will be evident in the cardboard," Baruc said. "The worms and microbes will decompose the cardboard year round, leaving well-aerated and worm-casting rich soil. The worms do all the work."

For an "Insta Garden," he said, "lay down large pieces of cardboard; use a utility knife to cut holes in the cardboard spaced to accommodate seedlings; shovel out existing soil in each hole and replace with or mix with good quality compost; transplant seedlings and water well; cover the cardboard around plants with mulch hay or well rotted leaves."



To sow and grow greens using the Insta Garden approach, he said, lay down cardboard in 3-foot-wide rows; cover cardboard with 3 to 4 inches of decent soil; cover the soil with 3 to 4 inches of rich compost; gently rake the surface of the compost smooth; water and seed greens.

Every fall, Baruc covers his plots with cardboard and mulch hay. In the spring, he can easily transplant seedlings, often using a dibble. He has been doing this for 14 years, he said. To avoid predation by crows, he transplants corn, herbs and even wheat.

While Baruc has never limed, the pH of the soil increased significantly in one season and the cation exchange capacity (CEC), a measure of soil fertility, increased fourfold. Adjacent woodland soil has a pH of 4 to 5, whereas Baruc's plots have a pH around 7. Soil tests found all nutrients to be "very high."

The CEC of Baruc's plots is 22 meq/100g, an extremely high level. The organic matter content for his plots is well over 15 percent, meaning he has certainly achieved his goal of growing soil.

Moot testimony to the weed control of this method is the fact that Baruc and farmer/scientist Rachel Scherer received a SARE grant to study and promote the cardboard method and there was no line item for weed control. Baruc said he told Scherer, "Why do we need money to control weeds when we never have a weed problem."

For more information on the cardboard method, visit www.thecardboardmethod.blogspot.com.

Developing a viable no-till method for small growers sprang from the very core of Baruc's persona. His interest in cultivating the fields and communities is well stated in the newsletter he and Habib produce: "Seeds of Solidarity: Cultivating Hope, Educating for Change."

With their house off the grid, powered by solar, and a vehicle powered with recycled vegetable oil, the couple are clearly several steps ahead of the rest of us.

For more information, visit www.seedsolidarity.org for more information.



Photos by Guy Steucek

Ricky Baruc shows one of his farm plots in Orange, Mass., at the end of March. After scraping off a little snow and mulch hay, the cardboard he covered the soil with last fall is nearly completely decomposed.

Above left: Despite a hard winter, the soil in Baruc's plots is soft and friable. He easily can plunge his hand into the no-till soil more than finger depth.

PENNFIELD – GRAIN BANK
 Prices may vary by feed mill location.
Prices Week Of 4/24/11

Corn	\$7.83	Bu.
Soybeans	\$13.78	Bu.
Barley	\$6.50	Bu.

- Use Grain "Same As Cash"
- Grain Back-Hauling
- Prices Updated Weekly
- Yearly Statement of Grain Transactions Available

Dave's Weekly Special
Safe-Guard Wormer 5%
\$3.00 Per Bag Discount

CUSTOMER SERVICE 1-800-995-0333

PIG SALE
 RECEIVING
 7:30 AM TO 10:00 AM
FRIDAY,
APRIL 29
 1:00 P.M. at
Carlisle
 LIVESTOCK MARKET, INC.
 Exit 44 Off I-81 turn South
 then Left on Alexander
 Spring Rd.
 (717) 249-4511

Lancaster Farming's Classified Ads Get Results!

A&C Diffenbach Auction Inc.

100 West Jackson Street • New Holland, Pennsylvania 17557
 Office: (717) 355-7253 • FAX: (717) 355-9547
www.auction.net

HAY, STRAW, GRAIN & FIREWOOD SALE EVERY MONDAY - 10:00 A.M.

EQUIPPED FOR AN AUCTION AT YOUR PLACE OR OURS
 ALAN DIFFENBACH AUCT. -AU2258-L

VINTAGE SALES STABLES, INC.

<p>MONDAY SALES AT 11:30 AM SELLING HEIFERS, BULLS, STEERS, FEEDER & BUTCHER COWS CALVES 3:00 PM</p> <p>BUSINESS 717/442-4181 717/768-8204</p> <p>FIELD REP BUTCH BROWN 717/341-8568</p>	<p>TUESDAY SALES 12:30 P.M. SLAUGHTER CATTLE AUCTION STEERS, BULLS, HEIFERS, COWS, FEEDER CATTLE</p> <p>4:30 P.M. CALVES, SHEEP, GOATS *GET CALVES IN EARLY! OUR STATE GRADER STARTS AT 10:30 A.M.</p>
--	---

RT. 30
 10 MILES EAST OF LANCASTER IN PARADISE, PA

Feeder Sale 2nd Friday of Each Month

NEW HOLLAND SALES STABLES INC. THE ACTION AUCTION

Livestock Is Our Only Business!

<p>MONDAY 7:30 A.M. SLAUGHTER HOGS EARLY BIRD HOG SALE Sell Your Hogs At New Holland Sales Stables, Inc. See them weighed, sold and pickup your check.</p> <p>10:00 A.M. RIDING HORSES, PONIES, DRIVING HORSES AND SOME WORK STOCK</p> <p>9:00 A.M. - SHEEP, GOATS</p> <p>12:30 P.M. BEEF SALE</p> <p>4:00 P.M. - CALVES</p>	<p>WEDNESDAY 10:30 A.M. COW SALE FOLLOWED BY BULLS FOLLOWED BY HEIFERS</p> <p>DAIRY COWS HEIFERS BULLS</p> <p>Loads of fresh cows and springers from our regular shippers. Also some local fresh cows and springers. 200 Heifers Sell Every Week All Sizes & Ages Registered & Grades</p> <p>1:30 P.M. FEEDER PIG SALE</p> <p>1st & 3rd Wednesdays of each month</p> <p>Pigs are accepted after 6:30 A.M. State graded from 8 to 12. Dairy Barn and Feeder Pig Barn are cleaned and disinfected weekly for your protection.</p>
--	--

THURSDAY

<p>9:30 A.M. BEEF AUCTION</p> <p>BULLS, STEERS, BEEF COWS</p> <p>1:00 P.M. STOCKERS & FEEDERS</p>	<p>10:00 A.M. GOATS, SHEEP</p> <p>2:00 P.M. CALVES</p>
---	--

New Holland Sales Stables, Inc. Order Buyer: Aaron Martin 717-445-4825

12 Miles East of Lancaster Off Route 23, New Holland, PA

David Kolb Manager 61L
 Sale Barn Office Manager:
 Michael J. McDermott - 717-354-4341
 FAX #717-355-0706

Field Representatives For Beef and Feeders:
 Ron Ranck - 717-656-9849
 Jim Martin - 717-445-4063 Home
 717-405-5339 Cell

Field Representative For Sheep and Goats:
 Paul Linehouser - 717-354-4341