Introduction

We started our internship program in 2008, and have been pleased with our interns’ enthusiasm and dedication over these past four years. Many were starting gardens for the first time, and so were motivated. These included Rebecca, Erin, and Kevin. Sylvia was revitalizing a garden her father kept when he was younger, but which had fallen into disuse after his death. Elizabeth had insufficient land on her city lot, so convinced her father to let her build a garden at his more rural home. Meg was an ag major and wanted the experience to help her with a project in Africa, and Laura intended to join the Peace Corps. Angela, married with four children, felt marooned in an urban townhouse, and wanted to get outdoors, as did Nynke, whose grandmother had a farm in Friesland (Netherlands). Lauren, finishing her massage therapy degree, was eager to learn how to do mini-farming to round out her holistic education and for use in her future.

Maria and Adrian, preparing to go back to the land in Argentina, were primed to soak up what they could. Garey had just finished taking a workshop on Permaculture Design and wanted to practice what he had learned; after he finished his internship with us, he traveled to Arizona to help a homesteader develop a permaculture plan for her land. Mel and her husband Pablo envisioned a life of self-sufficiency in rural Montana, so Mel wanted to learn all she could about growing crops, and applied the principles as she learned them from us on their first garden plot at a local community garden. Andy has been developing his parents’ rural property since 2009, and is going gangbusters, having enlisted his entire family in his quest to grow food for them – organically of course. In 2012 he will be adding a good sized orchard.

In what follows we capture some of the many tasks and activities in which our interns participated. If you are considering applying for an internship at Neo-Terra, these snapshots should give you a good sense of the range of experiences you might anticipate.

Snapshots of Interns in Action

One of the three principles of organic gardening is to improve the soil. We achieve this using compost and cover crops. The leaves and stalks of cover crops provide nitrogen-rich material to feed the pile, while the roots break up and aerate the soil, adding organic matter as their roots decay. Below left: Sylvia and Elizabeth cut a bed section in rye. Rye is planted in the fall and overwinters to do most of its growing, tops and roots, in the late winter and spring. We can get 2-3 cuttings of rye greens, which we turn into our compost pile. Below right: Nynke, Laura and Kevin turning compost at our lower pile. Nynke is holding a watering can containing a sugar water solution she will sprinkle on the compost to feed the bacteria, which raises the temperature of the pile. Ideally, the temperature should exceed 135 degrees F to kill pathogens (but not exceed 155 degrees F, which burns the compost and forms white ash).
We employ a variety of trellises to hold crops erect, and have trellises for peas, potatoes, and onions. **Below:** Mel (red shirt) and Kevin (standing) build a potato trellis while Gene holds end of tape measure.
We paint the trunks of our fruit trees with a thick mixture of joint compound and white interior latex (exterior latex has additional chemicals you do not want leaching onto your soil or into the tree). When this coating hardens, it reflects winter sun, thereby preventing premature sap flow which may freeze at night and damage the tree. The hard coating also prevents trunk-boring insects (peach borer and apple borer) from drilling holes and laying eggs, the larvae of which bore into the trunk and can cause early death of the tree. Below, Gene and Mel paint the trunk of one of our Reliance peaches. The paint gradually flakes off as the trunk expands and cracks, and therefore must be reapplied annually.

Right: Tania, Kevin and Mel having installed the first layer of the potato trellis. This keeps the potato plants erect, delaying senescence when the plants mature, thereby leading to higher yields. This beats using string. We add a second layer later. Note pea trellis in upper right.
We grow many culinary herbs, including several that require winnowing to separate the chaff from the seed. These include caraway, coriander and dill. We save the larger (and heavier) seeds that fall to the front to replant next season, and store the remaining in glass jars. Below Mel guides the dropping of the seed while Gene holds the fan and Kevin looks on.

**Right:** Gene and Garey double dig a bed section where an old Reliance peach tree had produced reliably for 14 years. They use a digging board to prevent compressing the soil.
Our winter greenhouse provides fresh greens throughout most of the winter. We erect it in October and take it down in early April. Below left: Rebecca and Elizabeth remove bricks from around the base, which hold the plastic firmly against the ground, to retard entry of voles. Voles are vegetarians and can do a number on leafy greens and root crops in a greenhouse. Below right: Maria and Adrian carry away one of the winter greenhouse arches for storage. Our design uses ½” electrical metal tubing (emt) held together with machine screws. Purlins lie on the ground to the right, and the rest of the frame is behind us. A dwarf apricot blooms to the left.

We plant our seeds in flats. We make the flats out of 1 x 4” pine boards, and then fill with our own potting mix. Below: Erin has just finished her first flat, which she will use to plant the seeds for her first garden. You can tell she is psyched. Erin spent time in the Peace Corps helping farmers in Peru set up bee hives.
We designed our pea trellis to be collapsible for easy storage. The trellis fits over a 5’ x 8’ bed section and accommodates 600 pea seedlings spaced apart with 3” triangles. **Below left:** Sylvia (far left) and Maria unfurl nylon mesh sections which hang from the frame. Gene and Adrian are installing mesh sections in the frame, already erected.

**Right:** Andy’s younger siblings plant seeds in flats he has built for the second year of his garden.

**Right:** We have finished installing the mesh nets. Note the pea seedlings beneath the trellis.
We use bird netting to keep birds and small animals (chipmunks and squirrels) out of our strawberry bed. Below: Rebecca and Gene screw long 1 x 2” strips to permanent plastic edging, around which the netting is wrapped. This secures the netting on the bottom, preventing animals from burrowing under. We then lower the netting from the top, allowing access to the strawberries.

Jeavons has designed a U-bar to aerate beds that have already been double-dug. Below: Laura practices using the U-bar while Andy uses the fork to knock clods through the U-bar’s tines. Andy uses the board to prevent soil from falling downhill into the path. Previously we have spread compost and minerals (as per our soil test results) on top of the bed. Thus, aeration and mixing occur in one operation. We rake out when done and then transplant seedlings into the bed.
Our interns are justly proud of their first gardens. Below: Mel takes Kevin and Gene on a tour of her and her husband Pablo’s garden plot in a local community garden. Hers was by far the best plot along any dimension: organization, productivity, absence of weeds, lushness and health of plants, and aesthetics.

We involve our interns in other worthwhile events. In the fall of 2011 two technicians from the Rodale Institute in Emmaus came to visit us: Mary and Natalia (seated left to right). Also joining Tania (photographer) and Gene were our intern Garey and one of our fellow gardeners, Karl (seated), who has embraced biointensive in a big way on his own property.
We also arrange tours to significant sites, including exemplary gardens in the area, a local living machine (evapo-transportation greenhouse), and other locations. One summer we arranged a tour to Darrell Frey’s bioshelter north of Pittsburgh. Below: Adrian, Maria and Rebecca pose in the upper story of Darrell’s “Three Sister’s Bioshelter”.

We give workshops and tours at Neo-Terra. Interns join us for these, as it gives them a big-picture view of what we do, which can be overlooked in the minutiae of everyday activities. Below: Gene starts one tour with an overview of tools, planting procedures, organic products, and other details.
Below: Gene takes another group on a tour.

Below: Gene, Adrian, Maria and Tania (taking the photo) enjoy a rare moment of relaxation on our back deck.

The End – for now.