Meet CRAFT: Yellowroot Farm

Our June CRAFT tour took us to Earthaven EcoVillage, for a visit with Andy Bosley and Julie McMahan of Yellowroot Farm. Yellowroot is a unique farm to our group, due to its location inside of an intentional community, and the biodynamic practices that Andy and Julie encourage. First, Andy introduced us to their small flock of pasture-raised broilers, which he moves around a beautiful, diverse pasture of legume and grain forages. Andy explained that the lush pasture we were standing in was a dense forest less than two years ago. Julie and Andy attribute the quick recovery period of the cleared land to biodynamic preparations. With the preps and other Biodynamic practices, they have also seen less insect and disease pressure. The pair got turned on to Biodynamic growing after Julie completed an internship at a Biodynamic farm in the Piedmont of NC. Since then, Andy explained, they have studied Biodynamics in more detail, attending conferences, and doing reading. “At first when I attended lectures about Biodynamic methodology,” Andy explained, “I was searching for the practical message, and would leave disappointed that no one could tell me anything practical to carry out the ideas. It wasn’t until I got home from the workshop and spent a day on the farm that I realized how the lessons I learned at the class fit into the big picture.” Andy and Julie explained part of Biodynamic theory by linking the parts of a plant to the four elements, and to the human condition. “The soil and the roots, this part is like the brain- the thinking part and the part where most activity takes place.” They are dedicated as much as they can be to planting by the signs, and claim that this practice has helped them prioritize and organize their work schedule. The pair purchase biodynamic preparations most of the time, but have also tried making their own herbal preparations. Maybe one of the most fascinating parts of the tour was Andy’s discussion on the benefits of preparing treatments for your crops or farm. “If anything, the time I spend standing over the burner stirring a prep does wonders for me as the farmer- it’s time that I can clear my head and really be intentional about what is next on the farm.”

In addition to learning about Biodynamics, we learned the challenges and opportunities Andy and Julie have faced as they attempt to live and farm in a community. We met pigs, learned of the hand mixed feed...
ration that they give the animals, discussed the diverse cover crops being used on the farm, and watched Andy demonstrate a scythe for easy and effective mowing of cover crops. “If I mow the stand, without the right mower the biomass flies off of the bed. With the scythe I can concentrate the crop residue where I want it. I can also pick off seed heads without having to mow the whole stand.” At Yellowroot’s scale, the scythe is an effective and low-energy tool.

“We’re certainly not experts,” Julie exclaimed as the tour ended and we got ready for a meal at the community kitchen. “We do believe in what we are doing, though, and with Biodynamics, you have to believe.”

Andy stressed that they are not Demeter Certified, and make it a point to call their farm “A Practice in Biodynamics.” Clearly, Yellowroot Farm is encouraging natural processes, which is a key tenet of sustainability, as well as Biodynamics. Andy and Julie use the pigs and chickens to clear land without tilling, and have even set their pigs to clearing a new piece of property, allowing their farm to expand. Their passive solar greenhouse, composting operation, and low-input, low-energy agricultural practices are great models for growers who aspire to live and work in harmony with their land.

Much of Yellowroot’s produce and meat is sold within Earthaven, but they also sell their products through Foothills Family Farms, a farming cooperative based in Old Fort, NC. For more information about Yellowroot Farm, visit them on the web at http://www.earthaven.org/farms-gardens/Yellow_Root_Farm.php

Farmer’s Corner: Ask Tom

Dear OGS:

We just started a farm in Haywood County. Tomatoes seem to do well here but I hear talk about tomato blight being a problem. What can I do to prevent it?

Thanks – New OrganicGrower

Dear Grower:

Blight is probably the single biggest issue for organic tomato growers in Western North Carolina. Our warm days and cool nights grow some of the most flavorful tomatoes in the world, but those conditions are also great for fungus diseases. Our weather also goes through wet and dry cycles within the season. If a wet period happens just as the tomatoes are getting started in May and June, early blight will be an issue. If it happens in late August and September, late blight is likely.

First, let’s consider early blight. Despite their similar names, early and late blight are different diseases. Early blight is soil borne and infects the tomato plants from soil that is splashed onto lower leaves and then September 26th: Registration will begin at noon. Competition will begin at 12:30pm. Competition categories include Junior and Senior Old Time Banjo and Fiddle and Old Time Bands. After the winners are announced, there will be a performance by them. Competition is limited to amateurs. There will be prizes in each category and juniors may enter for free. We are still in the planning stages of this new event. Details to come soon at www.organicgrowersschool.org or call Joe Hallock at 828.242.6247.

The True Nature Country Fair is an annual celebration of life in connection with the earth. The third annual Fair will take place September 26 and 27 at the Big Ivy Community Center in Barnardsville, NC. This event draws farmers, homebuilders, craftspeople, restauranteurs, and others for a weekend of live music, trade demonstrations, organic and local food, sustainable products and resources, and more. If you are interested in becoming involved in True Nature as a sponsor, exhibitor, or volunteer, contact True Nature Country Fair Program Manager Karen Vizzina at earthstarnc@earthlink.net. For more info about the Fair you can also visit our website at www.organicgrowersschool.org

This Month’s Picks

Each month, we highlight a seasonal recipe and a website. We hope you enjoy the submissions for July, and if you have a recipe or favorite website you would like us to share, let us know.

Penne with Walnut Pesto and Eggplant (4 servings)

2 small or 1 large eggplant (1 1/2 pounds)
2 T. olive oil
it moves up the plant. In dry years tomatoes can outgrow early blight so yield is not affected. Organic and plastic mulch help avoid that initial infection from the soil. Removing yellow leaves with the characteristic target spot also helps, if you can take the time to do that at a field scale. The main organic management method for early blight is vigorous plants. Correct pH, regular irrigation, and soil supplements matching the soil test results are some of the best ways to ensure vigorous plants. In most years early blight is a nuisance but will not threaten the success of your crop.

Late blight is a completely different matter. The first step in managing late blight is to get in the proper frame of mind. I suggest putting on the Jaws soundtrack. Late blight is the same disease that led to the Irish potato famine. One August I was anticipating my best tomato crop ever when ten days of rainy, misty weather moved in. A few days after the first blight damage the foliage was gone, the fruit were infected, and the crop was a total loss. That disappointing experience led to a SARE-funded research project on our farm and on Pat Battle’s farm in Celo. We tested compost tea, hydrogen peroxide and copper sulfate – all organically approved control methods. None worked outside but copper worked great under cover. In my view, copper fungicides are the only organic solution to late blight.

Copper fungicides have three problems. The first is that copper is a nutrient at low concentrations but it is toxic at higher concentrations. Excessive spraying over several years can poison your soil indefinitely. The second problem is that copper is a preventative fungicide. It does battle with fungal spores on the leaf surface. Once the invaders infect a leaf, that leaf is lost, so copper must coat every leaf when the fungal spores arrive. Unlike early blight, late blight is air borne. It blows in from other states and drifts down on the tops of plants. The leaves appear water-soaked and black. The third problem is that copper washes off in the rain.

Despite all this gloom and doom, organic tomato culture is not hopeless. First, not every year is a late blight year. When the weather turns dry in late August and September, late blight may never appear. Growing tomatoes under cover is another solution – one that has worked very well for us. Greenhouses and cold frames are expensive, but without direct rainfall, copper fungicides stay on the leaves and are very effective at preventing late blight. Finally, the Mountain Horticultural Center has an active tomato breeding program and they isolated the genes that counter both early blight and late blight. Within a few years we are likely to have great tasting tomatoes that are resistant to blight. (Please note that I referred to a breeding program. A genetic engineered approach is ruled out for organic production.)

For now, here are my recommendations for organic tomato growers:

- Use vigorous plants and mulch to manage early blight.
- Use drip irrigation to avoid long periods of wetted leaf surfaces.
- Invest in cold frames or greenhouses for “insurance” against late blight.
- Plant no more tomatoes outside than you are willing to lose (about half the time you will get a crop outside).
- Find an acceptable copper spray on the OMRI list and use it weekly as soon as late blight is reported in the area.
- Use a mist blower to ensure good coverage deep into the plant.

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- Use plastic mulch to intercept copper overspray (your certifier will ask about this issue).
- Keep spraying even if late blight gets into your coldframe. (You may lose leaves but you can protect the new growth with weekly sprays.)

You can take the Jaws soundtrack off the I-pod now. Late blight is manageable but we need to plan ahead to do it well.

Happy Growing.

-- Tom

Farmers; Got a question for Tom? Email it to the Organic Growers School.

Gardener's Corner: Ask Ruth

Dear Ruth,

For the first time in several years of successful raised bed gardening, my small chard plants (from seed) are being chopped off at the soil line. Is the damage due to cutworms? How can I avoid and get rid of these pests? Should I replant? I don't have any other space to plant the chard and I'm accustomed to having a large crop.

Also, is it possible to establish raised beds on top of a septic field if I line the bed with contractor grade plastic before I put the dirt in? This would give us some more garden space which we need. The septic field area is the one place that is flat and receives the best sun!!! Thanks so much,

Carmen Grier
Bakersville, NC

Dear Carmen,

Yipes! It does sound like cutworms are the problem. They usually chew through stems at ground level and can eat the whole baby plant. Oftentimes, cutworm damage is more prevalent in wet springs when planting is delayed, and they are generally most damaging in May and June. Cutworms are about 1 ¼ inches long, plump, soft-bodied and smooth. They curl up tight when you disturb them. They hide under soil clumps during the day and are active at night. In daytime you might catch them by digging around below the soil surface near your plants. Sometimes at night you can find them with a flashlight. If you
find one, just drop it in a jar of soapy water. Sorry, that is fatal!

The usual advice for fending off cutworms is to install a *tubular cardboard collar* around transplants. These should be pushed at least an inch or more below the ground and stand taller than the transplant. You can use a cardboard paper towel or toilet paper roller, or fashion a collar with similar dimensions out of scrap cardboard.

**Other ways to improve your chances against cutworms are:**

Keep down broadleaf weeds and grasses in the area all year and especially in the fall: that's where the cutworm moth lays its eggs. Many cutworm larvae overwinter on crop residues and clumps of grass. If you are preparing a new bed where sod was, it is recommended that you cultivate the area in early fall and keep it weed-free until planting time in spring. Regularly hoe lightly near the plants to expose the worms to birds or toads. Prepare your garden bed about 2 weeks prior to planting, removing all residue from soil surface. Plant beneficial insect plants like Fennel, Dill, and Queen Anne’s Lace near the garden to provide habitat for some of the predators and parasites of cutworms. Some people apply bait formulations to the soil, such as a mixture of rolled oats with molasses and *Bacillus thuringiensis* kurstaki with mixed results.

Since you have no other place to plant your chard would clear your bed of all residues and then cultivate the soil, destroying any cutworms as you expose them. Leave the bed clean for 10 days and then replant. Start your transplants while you are letting the soil lay. Install cardboard collars at the time of planting.

As far as planting over a *septic field* is not recommended. It is best not to compromise your septic field with roots or by compressing the soil above the field. Also there would be some concern of plant contamination by the septic fluids. Consider saving your sunny garden space for plants that absolutely require full sun. Plant vegetables that will accept some shade in your sunniest shade areas (such as lettuce, spinach, greens, garden peas, kohlrabi, and even cucumbers). Alternatively, see if you could shorten hedges, remove branches or even entire trees to attain some sunnier growing areas. Scout out pools of sun in your yard or flowerbeds that could accommodate vegetables. Most vegetables are beautiful plants, and we humans have a special fondness for food-bearing plants since eating is one of our primary pleasures.

*Banish the cutworms and enjoy that chard Carmen!*

Ruth

Gardeners: Got a question for Ruth? [Email it to the Organic Growers School.](mailto:Email+it+to+the+Organic+Growers+School)

A note about Ruth and Tom's advice: Ruth and Tom are both successful organic growers in Western North Carolina. Their advice is based on their personal research/reading or experience, and the Organic Growers School does not claim that these tips are based on any statistically significant scientific data. OGS offers no guarantee to those who wish to follow this advice on their farm or in their garden.
News Bits

OGS in the News: Did you see us in the Community Spotlight of July's Natural Awakenings Magazine? It's free on newstands throughout WNC, or, download the article from our website.

Herbicide Carryover in Manure and Compost: A warning to organic farmers and gardeners: Jeanine Davis of the NC Cooperative Extension, NC Specialty Crops Program and Board member for the Organic Growers School recently circulated an article about the alleged effects of a class of herbicides on home garden crops and farms. "Clopyralid, picloram, triclopyr, and aminopyralid are in a class of herbicides known as pyridine carboxylic acids... used to control broadleaf weeds in lawns, grain crops, pastures, and on roadsides. If these herbicides are used on a pasture or hayfield, they apparently don't harm the animals grazing on the pasture or eating the hay but the herbicides can be persistent and may remain active in the hay, straw, grass clippings, and manure, even if they are composted. A problem sometimes arises when that hay, straw, grass clippings, manure, or compost made from them, is applied to fields and gardens to raise broadleaf plants including vegetables and flowers." Affected plants have a curled, twisted appearance. Problems with these herbicides have been reported in Europe and last year in the US, a farm in Virginia experienced a total crop loss from contaminated straw mulch. Dr Davis recommends that farmers and gardeners alike make certain they are educated about the source of their hay, grass clippings, compost, or raw manure that comes from other farms. If you have questions or further information about this issue you can contact us.

Free Webinar on Sheep and Goat Production
This July 29, ATTRA – National Sustainable Agriculture Information Service will host a FREE webinar all about this expanding enterprise. Get the most current information on the sheep and goat industry, learn about producing and marketing sheep and goats and hear tips on entering and profiting in this growing livestock area. In this webinar, experts in sheep and goat production will cover the following topic areas:

- Multiple benefits of raising and marketing sheep and goats
- Selecting breeding stock
- Evaluating animal health
- Marketing meat, milk and wool products, including organic products

There will also be time to ask and get answers to your questions about sheep and goat production.

NCAT program specialists Linda Coffey and Margo Hale will present the webinar. Coffey’s experience includes working at the United States Sheep Experiment Station near Dubois, Idaho. She also has a Master's degree in animal science from the University of Missouri. Hale received a Bachelor's degree in animal science and is finishing her Master's degree in agricultural and extension education, both at the University of Arkansas. Coffey and Hale have lectured and written extensively on sheep and goat production issues in the United States.
This free webinar will be held Wednesday, July 29 at 11 a.m. Mountain Daylight Time (MDT). Please register at www.attra.ncat.org/webinars2009/sheepandgoat.

On the day of the seminar, please join 15 minutes early to allow the required software to download. You can then listen to the webinar through your computer's speakers and see the presentation slides on your computer screen. You may also listen to the webinar by calling a phone number provided after you register online.