

[View as Web Page](#) [Subscribe](#) [Send to a Friend](#)

[Organic Growers School](#)



Supporting Sustainable Agriculture
in the Southern Appalachians through
Educational Programs and Outreach



...e-news

True Nature Country Fair



September 25 & 26, 2010
Big Ivy Community Center
Barnardsville, NC

2011 OGS Spring Conference

The 18th annual Organic Growers School Spring Conference is scheduled for March 5 & 6, 2011 at the University of North Carolina at Asheville. Join over 1500 farmers, gardeners, consumers, chefs, activists and foodies for the southeast's largest sustainable living conference. Over 120 classes and hands-on workshops, a kids program, seed and plant exchange, trade show, and silent auction are among the weekend's offerings. To learn more, [visit our website.](#)

Interested in sponsoring, exhibiting, or donating to the silent auction?

[Download sponsor/vendor pack now.](#)





2010 Fair artwork by Douglas Lapham

The fourth annual True Nature Country Fair is right around the corner! Join farmers, gardeners, craft artists, restaurateurs, green builders, homesteaders and families for a weekend of workshops, plant walks, commercial and educational exhibits, live music, dance, and more!

\$5/adult

\$3/kids ages 2&up

Gates open 10-6 each day

[DOWNLOAD THE EVENT SCHEDULE NOW](#)

[DOWNLOAD THE KIDS PROGRAM SCHEDULE NOW](#)

This month, the spotlight is on **VOLUNTEERS**. Are you interested in lending a hand? Help is needed in the following areas: set up, clean up, security and parking, zero garbage, street team for postering, silent auction, **SPROUTS** kids program, Headquarters, market and PR team in exchange for admission to the Fair, class ticket, and a goody bag. For volunteer details about this event, [download the volunteer pack](#) and pick a shift. Then, email Program Manager Karen Vizzina at earthstarnc@earthlink.net

[VISIT OUR WEBSITE](#) for more info about the Fair.

Farmer's Corner: Ask Tom

News Bits

News Bits are reader submitted news, events, and opinion. Submit your bit [via email](#).

JCGEP Seeking Greenhouse Tenant

The Jackson County Green Energy Park (JCGEP) is actively seeking tenants to lease greenhouse space in Dillsboro, NC.

Approximately 4300 square feet is currently available to be rented by one grower or organization. One-year leases begin January 1, 2011 and are renewable for up to a total of three years.

The greenhouses are heated with a dual-fuel boiler that runs on methane gas from the former Dillsboro landfill, with bio-diesel as the backup fuel source. Landfill gas-fueled heat is included in the rent. Tenants are responsible for shared utility costs, and a rainwater collection system will be installed in early 2011 that will have the capacity to offset much of the water bill.

JCGEP is a business incubator. Renting greenhouse space at the Park allows growers to start their businesses without the typical costs associated



Dear Tom,
We usually grow lots of lettuce for market all summer long without any problems. Last year we started all our transplants under shady maple trees, and I had about 100% germination every time I seeded my transplants. I direct sow into Speedling 128's that have been bottom-soaked and I don't cover the seed. This year I seeded the transplants the same way but they were under a shade-cloth covered canopy. Once summer really hit, I only had about 5% germination. When I started having trouble, I tried putting the seed in the refrigerator, but that didn't help. I tried new seed. I have tried everything I can think of with no

luck Any ideas?

- Pete in Grapevine, NC

Pete -

Lettuce is one of that top three vegetables that Americans consume (potatoes and tomatoes are the other two) and summer is salad season when no one wants to turn on the stove. It is also the most challenging time for lettuce production on our farm. This year has been particularly challenging with high temperatures and erratic rainfall.

To grow summer lettuce we need to provide the crop with three items - favorable conditions for germination, favorable microclimate, and a strategy for disease management.

Germination - The Johnny's catalog germination guide indicates optimal germination for lettuce at 68 degrees. Lettuce will go dormant at temperatures in the 90s and may germinate eventually yields a poor stand and lets the weeds get a head start on it. In most years our average summer temperature is cool enough but sun on the soil surface even under shade cloth can exceed optimum conditions. One way to solve that problem is placing a block of closed-cell foam insulation over the seed flat after sowing and watering. Any thickness will help but I find that two inch sheets are less likely to blow away. That approach worked for many years but eventually the mice found those sheets very cozy with organic seed snacks close by. I now use a reach-in cooler and two old refrigerators (turned off) to keep the temperatures low until the seed coat cracks. Those metal boxes also keep the critters out. The refrigerator approach requires checking periodically but it works for us. Once the seed germinates it will do fine in higher temperatures, even into the nineties. I do not direct sow lettuce but primed seed sown in the late afternoon might work. A word of caution on primed seed - it is only good for a few months so plan to reorder a few times through the season.

It probably goes without saying but seed with poor germination percentage will perform poorly at any temperature. I suggest comparing your results with similar seeds from various seed houses. I have found big differences. For a while I switched to summer varieties in the summer but have since abandoned that approach. It seems to me summer varieties bolt slowly because everything about them is slow, including their growth rate. Slow growth gives fungi the upper hand in my view so I stay with spring/fall varieties and harvest them promptly. That means checking every few days in the summer.



with building a greenhouse.

Bids on the space will be accepted through November 1, 2010, or until the space has been leased.

JCGEP welcomes and encourages bids from growers, businesses, educational facilities, master gardeners, non-profits, and local cooperatives. Tenant selection will be based on many criteria, including business growth potential and needs of applicants, educational and community outreach benefits, and sustainability.

For more information, or for an application packet, contact:

[Carrie Blaskowski](#)

828.631.0271

Jackson County Green Energy Park

**ORGANIC WEED PULLER:
BACK BY POPULAR DEMAND**

Check out our Weedpuller, back from the 70's. We are manufacturing again due to the new interest by organic farmers. Please pass our website on to all you know who might have a weed infestation they don't know what to do with. Check out our website at www.organicweedpuller.com

-submitted by
Shirley Bourquin, Colby, KS

CRAFT

The CRAFT farmers are going strong! In September we have two tours. First up: Flying Cloud Farm for a lesson in Pest Management. Second: Green Jade Herbal for the lowdown on value added processing and retail marketing.

Expect BIG things from CRAFT in the coming months. Collaborative projects in the works for this fall will have us planning bigger and better curriculum, incorporating more benefits for farmer members,

Microclimate – Lettuce likes cool temperatures and moist soil. I find that shade to the west is a big help and mulch is also good to keep the soil evenly moist and cool. We grow on landscape fabric but I suspect straw would work also. There could be a slug problem with straw. Our slugs are not a big problem with fabric in most years. Our cool field gets sun from about 10:00 to 5:00 which seems to be plenty for lettuce in the summer.

Disease Management- It probably varies from farm to farm but our two disease headaches with lettuce are aster yellows and lettuce leaf mold. An internet search will yield any number of great photos and management strategies. Much of the lettuce research is from California so recommendations to “eliminate insect vector populations within a half mile” are not very practical for us. Aster yellows is very distinctive and is spread by leaf hoppers which are very common in our area. Over the years we learned that removing infected plants at the first sign of yellows, keeps damage at acceptable levels.

Guest Columnist: Dr. Richard Morel

AN OCEAN OF NITROGEN



These cattle are grazing bathed in an ocean of air that is 80% nitrogen, one of life's essential elements. Someone who weighs 150 pounds contains about four and one half pounds of it. Every gene in us, in livestock, in pastures, and in a farmer's crops contains nitrogen. Without it, no genetic

material would exist, and without genes, no life could be sustained, let alone reproduced. Seeds wouldn't mean a thing. Nitrogen is part of every tissue in grass, crops, livestock—and us. Muscle tissue is made of protein and protein is composed of nitrogen bound to a few other elements that form amino acids, the basic building blocks of muscles and many other tissues. Without nitrogen we couldn't blink an eye or take a step. Yet there's a bit of a mystery about nitrogen. None of the plants or animals on the farm can directly use nitrogen from the air. The nitrogen that we and other animals breathe, plentiful as it is, cannot be used directly as a supply of this essential element. We breathe it in; we breathe it out, unchanged. So how does nitrogen get to us in a usable form? Well, we get it when we consume a farmer's crops, or animals that have eaten plants. That's nitrogen we can use, because it's bound into chemical compounds that can eventually become part of genes, proteins and tissues. But, surprisingly, crop plants can't directly use pure nitrogen either. So, how does nitrogen begin its way along the food chain? How does it become part of beans, lettuce, and squash? Ecologically and agriculturally, whom should we thank?

For one thing, we can thank lightening. Those flashes combine nitrogen and oxygen and produce a compound that plants can use. But that's only a minor part of the story. Mostly, our thanks belong elsewhere.

We need to look to the soil—a subterranean world swirling with life, including the life sustaining heroes that channel nitrogen into the food chain. A handful of rich farm soil contains billions of living organisms, some of them, like bacteria, are microscopic; others, like earthworms, are comparatively huge. All play a role in channeling nitrogen into crops and finally to us. Some soil bacteria process pure nitrogen from the air and forge it into chemical forms that plants can take up through their roots and incorporate into tissues like spinach leaves, cucumbers, and tomatoes. Other organisms, such as soil mites and tardigrades chew up plant matter and make their nitrogen-containing contents more available to plant roots because water can better dissolve usable nitrogen compounds from ground up material. A burrowing earthworm, eating organisms like bacteria as it

and starting satellite CRAFT programs throughout the region.

For more information about CRAFT, or to enroll, [visit our website.](#)



NCAL

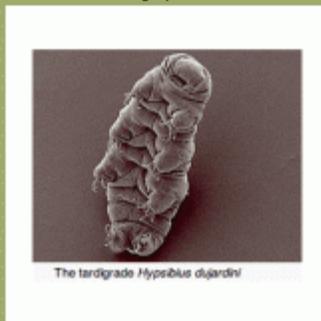
It's time to start making plans for next season! If you are looking for farm workers or looking for a farm to work with, make sure to check out OGS' online intern-to-farmer matching database. It is completely FREE and easy to use. Just complete an application (PDF format) and send it to our office. Our staff will then screen applicants to find a match for you. Winter-time is for hibernating. Let us do your intern search for you. [Visit NCAL on the web today.](#)

Note: Farmers and workers in VA, GA, TN, AND SC are encouraged to populate database, too!

tunnels along, leaves behind processed material that contains dissolvable and usable nitrogen compounds. From the world above, livestock deposits nitrogen-rich stuff, let's just call it stuff, which other types of bacteria process into forms that roots can absorb and plants can use. And we must give credit to another group of bacteria that specialize in returning nitrogen gas to the atmosphere, making the nitrogen circuit complete and maintaining the atmospheric balance of gases.

On the farm, just as in other terrestrial ecosystems, nitrogen comes into the system from the air and is cycled among bacteria, plants, and animals. Sustainable agriculture uses this natural process without importing nitrogen fertilizers from industrial producers. On these farms natural nitrogen fertilizer is a renewable resource, not an industrially produced fertilizer that leaves a huge carbon footprint in its wake.

I thought you might like to see a tardigrade. On average, they are about as big as a period on this page. I like to think they are called tardigrades because these cute little guys look like creatures that are always late for something or other.



Dr. Morel is compiling a book of his Farm Biology 101 pieces. Would you like to be on his mailing list? Email him directly at dmdrentropy237@gmail.com

Gardener's Corner: Ask Ruth



Ruth received a number of questions this month, and has attempted attempt to briefly answer each of them below. Enjoy!

To **Jim and Phoebe Reed** of Maple Glade Farm in Mills River, NC who are seeking a local and sustainable source of wildflower seeds:

Sow True Seed is a local seed company that carries wildflower seeds, along with a broad selection of open-pollinated, heirloom, and organic seeds. There are a number of retail locations in the Asheville area where you can find Sow True Seeds, or you can mail order them. See <http://sowtrue.com>

for retail locations and more information, or call 828-254-0708

From Dottie in North Carolina:

I have a question about mulch and how long it should "age" before using it. We had a particularly hard winter and that means trees down, and the chippers going full times.

My neighbor brought me a LARGE load of a mix of oak, poplar and perhaps some locust mulch. (no pine) How long should this age before using it?

And from Sam in NE Tennessee:

I enjoyed your recent answer on weed control methods but wonder if you could give some examples of mulch. Many experts say NOT to use wood mulch on veggie gardens b/c not only does the decomposing wood rob nitrogen from the soil but it also allows

spores to reproduce easily and cause other problems. I don't have nearly enough grass clippings to mulch my garden (as we are trying to reduce the lawn cutting areas more and more- a catch 22?) and straw always contains so many weed seeds that it creates it's own set of problems too. Any suggestions on a good mulch for vegetable gardens of large size?

Dottie, I would wait one year before using that mulch, and I would make sure it does not contain any black walnut chips as they are poisonous to many plants. Consider making your own compost with some of the chips by combining them with a nitrogen source like manure or blood meal. Minimum compost pile size is 3' x 3'. **Sam**, if you use wood mulch, balance that addition with inputs of nitrogen so your plants don't suffer. Straw is my favorite mulch because the stems of straw are hollow so it makes an airier mulch. The main seeds that sprout in my straw mulch are grain seeds, which I consider a free cover crop. I have used free hay as mulch, but hay does tend to contain lots of weed seeds. Some weed-free alternatives might be black plastic, landscape fabric, cardboard, newspaper, and even old carpet. Some people like to plant a living mulch using appropriate cover crops. Some people hoe on a regular basis rather than mulching, but in dry years, the mulch does help preserve moisture in the soil.

From Charlie and Judith Prichard in Clyde, NC: *Is it possible to grow a vegetable garden on a slope (+/- 25 degree) without terracing and creating flat areas? We were thinking of clearing but not leveling several smaller (100 sq ft) circular or keyhole gardens spaced randomly across the hillside without disturbing the areas in between the gardens. Will vegetables grow on a slope?*

Vegetables *will* grow on a slope. I used to pass a tiny homeplace in Madison County where the man would plow his steep ground (at least 45 degrees) with a mule every year. His corn patch was on one side, and his other veggies were on the other side ~ including squash that tumbled alongside the little creek next to his house.

I recently saw gorgeous pictures at the Tailgate Market of Laura Bower & Barry Rubenstein's organic farm where many of the fields are on *open* slopes, so there is no doubt that you can be successful. However, if the vegetation around your garden plots is very weedy, tall, or thick... realize that this surrounding vegetation may be introducing unwanted weed seeds and preventing good air circulation (good air circulation helps prevent diseases). Be sure to thoroughly incorporate any soil amendments into your garden soil so as not to loose them down the hill when it rains. You may want to dig swales (low, wide ditches) at intervals to help capture water for your plants, since gravity will prevail and pull precious water down the slope and out of reach of your plant roots. Religiously plant cover crops to avert losing your topsoil to erosion.

From Katherine in Pickens, SC:

We live on a one-road four year old housing development. Most of my neighbors have sod and yard services that spray for weeds. We only apply grass seed, lime and Southern Turf Builder two times a year.

Last year and this year, we honestly have every June bug in Pickens County in our yard! You cannot go out without the bug hitting you. I thought after 4 weeks of them they were gone, but a rain shower brought them back full force this week.

I have read the life cycle of these bugs and do not see any bad evidence of damage from them, such as leaf munching. I just wonder if they will eat all my grass roots in the

spring when the larvae are hatching out.

I am writing you in hopes of finding a cure for having the beasts go elsewhere next July and wondering why they are coming to just my yard. I know of other people who do not apply pesticides to their lawns in other parts of Pickens and they have not seen any June bugs! Thanks for any ideas.

Maybe your neighbors are applying a pesticide that kills the grubs, so they do not hatch out as June Bugs/Japanese Beetles the following year. The larvae of June Bugs and Japanese Beetles are white grubs with dark heads that live underground. Ten or more grubs per square foot can cause problems for your lawn, as they will eat the grass roots. Here are a few things you can do. (1) Let your lawn go dormant (don't water it) in June and July since ample water may attract egg-laying females. (2) *Do* water in late August and September since watering may help your lawn recover and make new roots if grub damage has occurred. (3) Parasitic wasps, *Tiphia* spp. and scoliids can work against white grubs, but it takes a few years for their numbers to be adequate enough to be effective. (4) Parasitic nematodes are being developed, and research is underway with different Bt strains. (5) Milky Spore, the bacteria *Paenibacillus popilliae*, can be applied full strength once, or applied Spring, Summer, and Fall for 2 seasons. These bacteria parasitize the grubs, and every time a grub dies the number of bacteria increase. Over time, the Milky Spore population multiplies enough to effectively eliminate the grubs. Having fewer grubs also helps prevent mole damage, as moles like to eat grubs. Mostly paraphrased from [See this link for more information.](#)

From Corinne, a FL gardener loving the new backyard gardening in NC.

Hello, I bought a large raspberry bush 2 years ago. Last Spring (09) it grew canes and I had small amount of delicious fruit. This Spring it grew canes again and had about the same amount of berries (3/4 of a quart.).

Also noticed many new plants all around the original bush. In a couple of months, each was as tall as the "mother". Can I expect these new plants to produce fruit in 2011?

I have never grown berries before and would appreciate tips on when and how to trim and to fertilize. Thanks for your help.

Since raspberries are a perennial crop that will produce for many years, it is well worth taking the time to prepare the plant beds. Raspberries are fairly adaptable to soil type, but prefer a deeply-worked, well-drained, fertile soil with a pH of 6.0 to 6.5. If indicated by your soil test (free through NC Cooperative Extension), apply any needed lime or other amendments in the fall prior to spring planting. It is best to avoid planting in plots that recently grew nightshades or sod.

In subsequent years, raspberries usually need extra inputs of fertilizer, especially nitrogen, for good fruiting to occur. Apply manures and fertilizers in late winter/early spring. If you are applying *uncomposted* manure as the fertilizer, apply at least 4 months before harvest so the manure will be sufficiently decomposed prior to harvest time. Apply 10-15 lbs. (7 1/2 lbs. if poultry manure) of well-rotted manure per 10 ft. of row, or about 2 1/3 lbs. of cottonseed meal, or 1 1/3 lbs. of blood meal per 10 feet of row. With manures (especially poultry), you should be careful about accumulating too much phosphorus or salts in the soil over time, as raspberries are sensitive to this. *Properly composted* manure can be used in greater quantities and into the growing season. You can fertilize a second time in late June/early July. Fertilizing any later in the season may cause frost damage to the new canes.

Plant red raspberries about 3 ft. apart in rows 8-12 ft. apart. Raspberries will produce runners with new plants sprouting up along the runners. Confine the raspberry sprouts to about a 15-18 inch wide strip within the row, and eliminate sprouts that exceed that width. Thin the new canes to about 6" apart, saving the strongest looking canes. Raspberries are often supported by a trellis. The trellis can be as simple as metal fence posts with a strong rustproof wire running between them. Growers of 'Heritage' red raspberries often install a temporary support system that can be easily removed prior to mowing.

There are two types of red raspberries, and the type determines pruning methods:

Summer-bearing raspberries produce primocanes (first year canes), which are then called floricanes the following year. In other words, this year's primocane will be next year's floricone. Fruit is generally produced only on the floricanes (the second year canes) in early summer. In late winter, cut the floricanes back to about 5' tall. After fruiting, the floricone should be cut to the ground as soon as possible, as this helps prevent diseases.

Ever-bearing raspberries produce fruit on the tips of the primocanes in late summer/fall of the first year, and on the lower portion of the floricanes (last years primocanes) in early summer of the following year. Two common ever-bearing cultivars are 'Southland' and 'Heritage', and 'Heritage' is best suited to the mountain areas of WNC. The recommendation is to let Southland bear two crops annually, but to maximize Heritage's late crop by eliminating its June crop. This simplifies pruning Heritage raspberries, because in late fall you just mow down (or cut off at ground level) *all* the Heritage canes. With this regimen, raspberries will be produced on the primocanes of Heritage-type raspberries in late summer/fall of every year.

Sources and for more info:

<http://attra.ncat.org/attra-pub/bramble.html>

<http://www.ces.ncsu.edu/depts/hort/hil/hil-8204.html>

<http://www.wvu.edu/~agexten/hortcult/homegard/fertsm1ft.htm>

Enjoy these last days of summer, and remember it is time to start thinking about planting your fall garden and your cover crops.

All my best,

Ruth

**Gardeners: Got a question for Ruth? Email it to us
enews@organicgrowersschool.org**

Ruth Gonzalez is a former market farmer, avid gardener, local food advocate, and founder of the Tailgate Market Fan Club where she blogs at <http://tailgatemarketfanclub.wordpress.com>. In her job at Reems Creek Nursery, Ruth offers advice on all sorts of gardening questions, and benefits daily from the wisdom of local gardeners. Ask Ruth © 2010 Ruth Gonzalez & Organic Growers School

