

Lee Agriculture News

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Lee Agricultural Commission

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Root Cellaring: Keeping the Harvest *by Annalisa Miller*

Can you imagine that you could store away food for the winter without using any electricity? Our grandparents and great grandparents did just that utilizing many nifty storage techniques. The tool at the center of this energy free storage of food for the winter is a well designed root cellar. The basic premise of a root cellar is that it is dug into the ground and is below the frost line. The root cellar uses the earth as a natural insulator, providing a consistently cool but not freezing temperature all year round. Some people dig their root cellar into a slope. Many of the older homes in our area have root cellars built into the design in the basement.

These old root cellar spaces may or may not be usable now, depending if they are now next to a furnace that will keep the space too warm. There are many possible designs for a great root cellar, and the best design for you depends upon your location and your food storage goals. You can contact your local carpenter or mason to ask about what the best design might be for a root cellar for your home and be the envy of all of your neighbors when they

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The Death and Birth of New Hampshire Agriculture

by John E. Carroll, UNH

New Hampshire agriculture is dying. This is absolutely true. New Hampshire agriculture is being born. This, too, is absolutely true. A paradox. I refer to two different agricultures. The one that is dying, and has been dying for more than half a century, is commodity agriculture selling to wholesalers under the control of market prices from afar over which farmers have no control. It is costly high input agriculture of an industrial model, factory farming of sorts, which is simply uncompetitive with the combination of high input costs and low return. It is also monocultural, focusing on one or, at most, two products of the farm. The agriculture that is being born is small-scale, decentralized agriculture selling directly into local markets which can and will pay. It is often grass-based and/or organic agriculture, it is very biodiverse as well as economically diverse, and is based on human relationship (in fact, the great agricultural philosopher Fred Kirschenmann refers to it as "relationship agriculture"). This is often agriculture based on biological/ecological principles rather than industrial principles and which largely controls its own market prices, an agriculture where the farmer is in control, yielding benefit to both the farmer and the patron. In a word it is, by definition, sustainable agriculture.

During the past few years I've been referring to this re-birth of agriculture and agrarian thought in our area of Seacoast New Hampshire and southern Maine as an agricultural renaissance. But I now sense that it's more than that. There is today so much of substance happening in Lee and surrounding towns that we can call it an agricultural revolution in the making! From turn-outs of 2300 at Winter Farmers Markets to a huge growth in community and home gardens, from enrollment increases in the hundreds of percent this year in chickens, pigs, soil health, food preservation and many

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see what a fabulous supply of food you have put away for the winter. In a root cellar you can store canned goods potatoes, carrots, beets, cabbages, turnip, rutabagas, garlic, onions, shallots, apples, parsnips, sweet potatoes, winter squash, brussel sprouts, and anything else you want to keep at a *fridge* temperature without using electricity. Different crops have ideal temperatures and humidity levels that they most prefer, and you must use different techniques to retain their quality. Carrots prefer to be packed with something damp such as dampened sand, wood shavings, or leaves, in order to retain their crispness through the winter. A root cellar can also be useful to store crops that need a second year of growing in order to go to seed and complete their life cycles. In this situation, in the fall you pick your favorite individual vegetables from each root crop that you grew, and replant them in the spring so they have a chance to give you seed for the next growing season.



Bringing Home The Harvest

Depending on the crop, you can create a root cellar environment in your basement, porch, garage or hideaway closet. Some crops prefer a slightly cooler environment than others, and some need more or less humidity. For example, ideal winter storage of onions, winter squash, sweet potatoes and garlic is cool and dry. This is in contrast to other crops that like to be kept in an environment that is cool and very moist. These cool and moist storage crops include cabbage, apples, potatoes, carrots, beets, parsnips, rutabagas, turnips, celery, celeriac, kohlrabi, leeks, chinese cabbage and brussel sprouts.

Carrots are a favorite for winter storage because of the color, delicious taste, and vitamin A that they bring to winter meals. Carrots can keep well in to May if they are kept cold and moist at 32 - 40 degrees F and 90 - 95 percent humidity. If you want to grow extra carrots this season and try to keep a portion of them to use through the winter these are a few things to keep in mind. You can do a later planting of carrots, such as starting them sometime in June. You need to dig your carrots before the ground freezes solid. After digging them up, you want to brush off any dry dirt and break off the green tops. You can make alternating layers of damp sawdust and carrots in a carton, box or can. Arrange the carrots side by side in the damp sawdust but you want to be careful about keeping them in single layers with one inch of damp sawdust between the layers. If you do not have sawdust, you can use damp sand, peat moss or damp leaves. In some circumstances you can lay a thick mulch over your carrot crop and wait until a January thaw to dig them.

For onions, the best for storage are a late maturing onion with a thin neck. When most of the crop's tops

have bent over naturally you can bend off the rest and let them dry in the field for another week. Then pull them out of the ground on a dry day and let them dry in the sun for three days to a week. Cut off the tops and let them stay in a dry shady place for a couple of more weeks to help them cure. You can then place them in mesh bags or in a carton with holes in it and keep them in a cool and dry place. Some people like to braid their onions and hang them from rafters. Make sure the onion leaves are well dried and brown before braiding them, otherwise they may rot.

If you want to store winter squash, make sure to keep the stem on to prevent premature spoilage. Most root cellars are too damp for winter squash but a cool unheated side room can be a great place for winter squash storage. For some people an attic, heated basement away from the furnace or a spare bedroom can be an ideal temperature for winter squash. Fifty five to sixty degrees F and 60-70 percent humidity is ideal.

For information on root cellar designs and information on ideal storage conditions for other fruits and vegetable I encourage you to check out Mike and Nancy Bubel's book Root Cellaring: Natural Cold Storage of Fruits and Vegetables.

There is a copy of this book at the Lee Library.

Lee Public Library Agricultural Resources

Growing and Preserving Your Own Food Resources
by *Lisa A. Morin*, Director, Lee Public Library

The Lee Public Library has compiled a bibliography of books, websites and other resources about growing and preserving vegetables and fruit, raising livestock and living off the land. It is available for viewing online at the library's website at: www.lee.lib.nh.us or stop by the library to pick up a copy. ☀

Saving Seed



A skill to be remembered and practiced
by *Annalisa Miller*

As we are gaining awareness about the steps we need to take to have a more sustainable and resilient local food system to enhance our food security, one of the major skills that we need to consider is seed saving. We need to re-learn how to save our seed and how to select from our crops to select for plants that perform well in our micro climate. New England climate is unique and there are relatively few seed companies that are breeding specifically for our climate. Seed Saving is a skill and practice that is important to take back into our hands so that we can practice farming and gardening with the same skill and care that our great grandparents did before there were big seed companies from which to order our seed. Saving your own seed can be fun and

other agricultural and food subjects, one can see this revolution in many different forms. You can undoubtedly add many other impressive examples of such growth.

And everyone is involved! If any reader thinks this is an elitist revolution, just listen to the Maine beef farmer in Lovell who called in to me on the air for Laura Knoy's *The Exchange* on NHPR recently. This is a working class movement benefiting working class people. Also in that segment of *The Exchange* (which is available at NHPR's website) is inspiring information about the new agricultural economy being established around Hardwick, Vermont, a true model of inspiration for Lee and many other communities.

The crowds nowadays at the farmers markets, the great numbers signing up for CSA shares, the explosion of community and home gardens are all proof of the Agrarian Revolution in our midst, a revolution where even the public is running ahead of the local food advocates! Here at UNH we're seeing more and more serious student interest in local food and farming, particularly among the younger students. UNH's newly proposed degree program in Sustainable Agriculture, the first general agriculture degree at UNH in many years, will likely further spur student interest in this area.

I will close with the words of a recent UNH alum, Mark Joseph, '06, in answer to the question, "Why farm?"

"Why sleep in a barn? Why stoop and crouch and kneel to such an extent that every pair of my khakis split at the knee? Why work such long hours for so little money? Why swing a hoe at all these days? Love. Plain and simple.

"Love of nature, sunflower and Eastern hemlock, a cool pond that becomes colder the farther down you dive and pasture that rolls to the edge of the wood. Love of sunrise and those moments in the late afternoon when gold, practically a primary color, blankets the land. Love of fresh sweet onions and Buttercup squash that stores all through a New England winter. Love of simplicity and serenity. Love of familiar trees and familiar stars. Love, essentially, of humanity and of creation."

From "Calloused and Content: Why Sleep in a Barn?" by Mark Joseph, UNH '06, UNH Magazine, Winter, 2007. ☼



Farm-friendly Communities and Local Food

by Juli Brussell, UNH Cooperative Extension

Exercise in community development.

Open your refrigerator. Look inside. Count the number of items you see that came from a local farmer or were processed locally. (OK, it's all right to check the freezer and your kitchen shelves, too.)

Now imagine what your town would be like if 40% of the food in your kitchen came from somewhere local. From someone you know, a farm you visit. How might your town be different, look different? Would you act differently? Would you be more inclined to have a vegetable garden? Share some backyard chickens with your neighbors who have a yard? Pick apples or raspberries across the road? Freeze some for winter?

And why on earth is this a good time to be asking those questions?

One answer lies in how we handle issues concerning local farms. Another in how we view the wisdom of food self-sufficiency. Yet another answer lies in what we believe to be a good quality of life for ourselves and our friends, our families.

All of these are interconnected, tangled up with carbon credits, hunger, global climate change and the possibility of peak oil. But we are not going that deep, not here, not now. We focus on food, good food. Neighbors, our neighbors. Tied together in a community whose values we can support.

The old saying goes that you are what you eat. But maybe you are where you eat as well. Currently less than 3 or 4% of the food we consume in New Hampshire comes from local sources. The remainder is transported from "away": 200 miles, 500 miles, 1500 miles or more.

By any stretch, this is a long way from home. How does buying it or eating it support our homes, our communities? I believe we can do better.

I believe we need to do better.

According to the 2007 Census of Agriculture, Strafford County has 303 farms. Only 37 of those farms are larger than 179 acres and only 47 of the 303 have sales of more than \$25,000 per year. Yet those 303 farms support numerous farmers markets, supply a number of farm stands, and sell local farm products that increase the economic vitality of communities across the county, one being the town of Lee.

Supporting policies that support these farms seems like good business. Supporting these farms just might build and maintain the kind of community you want to live in, now and 20 years from now. Not to mention keeping local residents supplied with the kind of food we hope to keep on our tables, regardless of hard times, changing weather patterns, or international politics.

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Farm-friendly Communities. *continued from Page 3*

In a May 2010 article, Roger Doiron, founding director of Kitchen Gardeners International based in Portland, Maine, noted that at the peak of the Victory Garden movement during World War II, gardens found across the country in backyards, workplaces, and vacant lots grew 40% of our country's produce. This didn't count the quantities of eggs, milk, and other livestock products also produced at that time in towns and on farms. I wonder what kind of impact that local production had on communities whose residents relied on each other for much of their sustenance? Did it bring them closer together? Did they feed each other neighborliness along with the local food?

We can do better today than the 3-4% of food consumed from local sources that I cited above. Doing so would indeed reduce the energy costs of transportation and distribution. Less petroleum fuel used means potentially a smaller carbon footprint. But that is not the most compelling reason and I said I wasn't going to go there, not now. The benefit to our communities, our local economies, to our quality of life is reason enough. Supporting our local farms, growing a farm-friendly community that in turn supports us is ample reason. Not to mention that local food just tastes so darn good. ☀

Community Gardens For All

The initiative for local community gardens in the Durham and Lee area began last year by Dennis Meadows with the vision of eventually having community gardens in every neighborhood so that they are walking distance



from the participants. Last year began with the Wagon Hill Community Garden in Durham, managed by Filson Glanz, and the Tuckaway Farm Community Garden in Lee, run by Annalisa Miller. Dennis is seeking non-profit status for Community Gardens for All.

The Wagon Hill Community Garden used an area not plowed for the previous 20 years. Six gardens were tended with various results due to heavy rain, heavy soil, and heavy work turning the soil. Tomatoes, beans, cucumbers, lettuce, zucchini, and other tasty vegetables were harvested. This year, with the generous help of the Timberland Corporation Community Service program, around 80 people helped build raised beds, each 4 ft. by 8 ft., and filled them with a mixture of fertile soil and manure, topped with a hay cover. They then put wood chips on the paths and created a number of future raised bed sites with a "lasagna" layering of papers, manure, and hay to provide ample bacteria to decompose the 8 inch sod over time. The overall garden area was conceived and designed by Lauren Chase-Rowell with well over a hundred raised beds expected in the future. The completed raised beds are being worked and

planted now, and should be a big improvement over last year's plots. A garden shed contributed by Durham Public Works was installed along with a three stage compost bin and a number of picnic tables. Also, Durham has provided a water line to the gardens, a welcome relief in dry times. The gardens are an activity of the Durham Parks and Recreation Department, and have the support of the Durham Public Works Department.

Many Lee families have their own house gardens, but there is also interest in neighborhood community gardens. For resource ideas and suggestions, contact the Lee Agricultural Commission through the Town Hall.

Seacoast Community Garden Network: Your Community Garden Connection

The Seacoast Community Garden Network can help you in your community garden adventures. You can find: Seacoast Community Gardens, Garden Beds Available or Wanted, Supplies to Share, Questions and Answers from the Community, Resources, Latest Community Garden News, Links, and more.

"We envision a thriving, collaborative network that creates and sustains an ever-growing number of community gardens in the Seacoast, to enhance our local food resources and build community vitality. By sharing inspiration, support, and knowledge, together we are stronger."

From: www.seacoastcommunitygardennetwork.org ☀

Lee Farmer's Market

Summer 2010

Summer is here, flowers are blooming, seeds and plants are planted, and the folks at the Lee Farmer's Market are making plans for another successful year of providing fresh, locally produced products. The Market will continue to be held at the old fire station in Lee starting in early June and will run through mid-September. The hours are 3-6 p.m. on Thursdays. We are planning on a good variety of local fresh products ranging from produce and fruits to meats and baked goods. If you have been to the market in the past, you will remember the fine products and the sense of community. If you have not yet experienced the market, give it a try this year.



If you are interested in sharing your musical talent or performing a demonstration during the market, please let me know.

If you are interested in participating as a vendor, give me a call or pick up an application form at the Town Office. Dick Babcock, Market Master @ 659-9329 ☀

Lee Back Yard Farming Initiative

by *Wendy Fogg*

Sponsored by The *Lee Agricultural Commission*

The Lee Agricultural Commission teamed up with the Lee Library to kick off the Lee Backyard Farming Initiative in the summer of 2009. It has continued since then with growing positive response from the community.

The Initiative was created in response to the funding issues facing Strafford County's Cooperative Extension Service in the wake of the economic crash. It only made sense that Lee, one of the state's leaders in agriculture, would step up to the plate and become the resource for members of the community seeking guidance in gardening practices during this time when so many were deciding to grow food for the very first time. The Commission members began to brainstorm about things the average person would need to learn in order to make their gardening efforts successful; skills that most farmers use every day without a blink.



Members of the farming community were called upon and graciously began to volunteer their time and talent. The program offers families the opportunity to share a joyful interactive experience with their children and neighbors, while learning valuable skills that will afford them countless long-term benefits.

To date, the following workshops have been presented:

- ◆ George Estes - Growing Strawberries
- ◆ Peter Hoyt – Care & Maintenance of your Lawnmower & Rototiller
- ◆ Amy/Yehuda Daskal– Growing Plants from Seed
- ◆ Wendy Fogg – Companion Planting & Garden Composting
- ◆ Blaine Cox - Raising Chickens
- ◆ Mark Davis – Choosing Nursery Plants

Workshops planned for 2010 include:

- ◆ Blaine Cox – A Pig Primer
- ◆ Scott Kemp – Blacksmithing
- ◆ Donna Lee Woods – Making Goat Yogurt and Cheese
- ◆ Wendy Fogg – Basics of Organic Gardening
- ◆ Peter Hoyt – Care & Maintenance of your Lawnmower & Rototiller
- ◆ Annalisa Miller – Growing Great Garlic
- ◆ Don Quigley – Managing A Family Woodlot
- ◆ Dwight Barney – Raising Sheep

Got More Ideas? Care to Volunteer?

Workshops Needing Presenters:

- ◆ Good Bugs/Bad Bugs: The Importance of Beneficial Insects
- ◆ Crop Rotation for a Healthy Garden

- ◆ Make your own insecticides & fungicides
- ◆ Honey Bees: Keepers of the Planet
- ◆ Gardening with Children
- ◆ Make Your Own Maple Syrup
- ◆ Safety in the Garden
- ◆ Grow Your Own Blueberries
- ◆ Your Natural Lawn – Safe and Beautiful
- ◆ Living in Harmony with Wildlife ~ And Keeping Them Out of the Garden

Workshops and demonstrations are offered free of charge and may include lectures, slide shows and/or video presentations, on-site at various farms and home gardens as well as at indoor locations such as the Safety Complex and the Lee Library. Frequency of presentations will vary depending on availability of presenters.

If you're interested in being a presenter, or if you have ideas or requests for particular topics, please contact Wendy Fogg, Program Coordinator: wendyfogg@comcast.net

Late Blight: A Community Disease

Ensure your garden is not a source of disease! Late blight persists in potato tubers.

- ❖ Destroy left over potatoes from last season.
- ❖ Search and destroy volunteer potato plants sprouting in the garden or compost pile (bag and place in the garbage).
- ❖ Buy new potato seed and tomato transplants from a source that can provide assurance that they are disease free.
- ❖ Do not plant potatoes left-over from last year's infected crop or potatoes purchased from a grocery store.
- ❖ Minimize leaf wetness by staking tomatoes, using good spacing and practicing good weed management.
- ❖ If late blight occurs in your garden or on volunteer potato plants, remove affected tissue and promptly report to your county UNH Cooperative Extension office or the UNH Plant Diagnostic Lab at 862-3841.

Early identification and eradication of infected plants from last year will help reduce the likelihood of an outbreak later this season if there is an extended period of rainy, cool, and cloudy weather.



More information: www.hort.cornell.edu/lateblight From *mofga.org*, *UMass Veg Notes*, and *Becky Sideman, Assoc. Ext. Professor of Sustainable Horticulture, UNH Cooperative Extension* ☀

Ten Ways Strafford County Conservation District can Help

by *Bambi Miller*, District Manager SCCD

1. Water needs for live stock and crops. Technical and financial assistance available for solving water quality and quantity conservation and availability problems. This can include water source development.
2. Erosion control and water runoff concerns around farmstead or for forestry access roads. Technical and financial assistance for solving sediment and erosion problems.
3. Manure and nutrient management. Technical and financial assistance available to design, test and develop systems for use and management of nutrients. This can include placement and design of manure containment, composting and spreading practices.
4. Wildlife habitat enhancement to improve your property for targeted wildlife. Planning assistance and funding is available for the development of plans and development. Pollinator enhancement plantings and invasive plant removal are two of the many programs available. Planting of beneficial plants and repairing past environmental damage are some of the practices.
5. Conservation of family farms through conservation easements. Information and assistance is available for landowners planning for the future of their property. The District can help match landowner easement projects with funding sources.
6. Soils information is available, along with technical assistance in planning for land use changes. Before you build, you should make sure that the land and soil can support what you would like to do. A little preplanning can save a lot of money and headaches. The District has soils maps, aerial photos, topographic maps and flood plain maps in the office for viewing to assist with planning.
7. Seasonal High Tunnels for food and other specialty crop production season extension. There is a new three year pilot program to assist with the cost of building a high tunnel to expand the growing season.
8. Cost assistance for switching to organically certified crops.
9. Energy use and cost reduction assistance is available. This is a new program to help you evaluate different energy systems, including electric, oil , propane, fuel, wood, wind and solar, and to develop new and innovative designs to reduce energy costs and usage.
10. Soil Potential Index ratings are done by the District for open land that is in Current Use. If you have questions, please call for more information.

The Conservation District is the local connection and voice to the Federal USDA – NRCS programs for the land owners and land users of Strafford County. We will try to match your needs with the appropriate federal or state assistance programs.

“The mission of the Strafford County Conservation District is to promote conservation, protection, retention, and use of important farm, forest, and other sensitive land in a manner fair and equitable to the citizens and land owners of the land in Strafford County.”

The District is concerned with:

- ❖ Protecting water quality & quantity (both surface & sub-surface)
- ❖ Sustaining agriculture by improving local infrastructure and assisting in protecting land by use of conservation easements.
- ❖ Maintaining and enhancing wildlife habitat and promoting the conservation of ecological system diversity by working to combat threats to the environment and reducing losses of habitat.
- ❖ The District believes in the importance of education of both children and adults so they may have the knowledge to make wise decisions now and in the future.

If you are interested in more information on any of the SCCD conservation programs, please contact the office at 749-3037 or e-mail the District Manager at bambi.miller@nh.nacdnet.net ☀

Grains in New Hampshire!

Grains are returning to New Hampshire!

A very few farms in New England have been growing grains for many years. Now, with renewed interest and enthusiasm for growing grains for both human and animal consumption, the wisdom and experience of these grain growers are being shared and augmented by research into new varieties and growing methods that work well in our New England climate and soils. Locally, last year the Great Bay Grain Cooperative had harvests of wheat, triticale, rye, barley, and oats. Now they are busy planting variety trials of wheat, rye, triticale, barley, spelt, canola, oats, and millet (as well as beans, soy beans, and sunflowers). They are using the grains for animal feed and for human consumption. The rich flavor of freshly ground flour in pancakes, pasta, and bread bodes well for predictions of an enthusiastic market as the yields for these local grains increase. ☀



Is New Hampshire Natural Resource-Limited?

A comparative agriculture overview

by *Dorn Cox*

The recently released report by economist Ross Gittel and Matt Magnusson of the Whittemore School of Business, titled “The Economic Impact of Local Food Systems in New Hampshire - Current Status and Prospects for Growth in New Hampshire” (http://www.foodsolutionsne.org/Resources/reports-and-publications/HomeGrownReport_final.pdf) makes it clear that food security is not just a nice idea, but has very large economic potential. The report concludes that current local food production contributes only \$138 million to the state Gross State Product (GSP), while there is a \$3 billion demand. This is an enormous opportunity to build a renewable and regenerative industry, while increasing the productivity and health of our soils.

It is easy for New Hampshire agriculture to rationalize why we have fewer and less profitable farms that produce less food for our state than our neighbors, but in order to properly analyze New Hampshire’s true resource capacity it is helpful to place our state in context not just with its domestic neighbors, but in parity with other countries that have similar physical characteristics.

To accomplish this, we might look at other states and countries with similar physical topography, climate, and precipitation levels. Vermont, Switzerland, and Slovenia all share many characteristics with New Hampshire, but each has drastically different agricultural performance and economic contributions.

Vermont, Switzerland and Slovenia all have over 20% of their land base in cropland with Switzerland cultivating almost 38% of its land base, while New Hampshire only farms 7% of its land; this is despite USDA soil maps showing that 40% of New Hampshire’s land is in agricultural soils (NH has become the second most forested state in the union – which is also a great resource, but another story).

The difference in economic output per acre is also telling: **New Hampshire averages about \$340/acre output while Vermont’s output is about double that at over \$600/acre in cropland. Slovenia also averages over \$600/acre while Switzerland averages a whopping \$2300 per acre output.** Much of the output in Switzerland and Slovenia is in intensively produced cereal and grain crops, and in each of these other states the level of product that is locally processed far exceeds that in New Hampshire. (Think of our lack of bottling, cheese making, meat processing, freezing, and milling capacity.) Food self-sufficiency in these other

states is also drastically different from our own: **New Hampshire produces about 5% of its food needs for its 1.3 million people, while Vermont produces around 30%, Switzerland 60% and Slovenia 90%. Switzerland is able to accomplish this for its nine million people!** It seems silly in this context to argue that Switzerland must just be less mountainous or has fewer rocks than New Hampshire.

It is also clear from the data that farm size is not a simple explanation for New Hampshire farms being less productive. The average farm size in New Hampshire is about 130 acres while in Vermont the average is 190 acres – but the average farm size in Slovenia is 10 acres, while Switzerland’s average farm size is about 50 acres. The key difference seems to be not farm size but numbers of farmers working the land.

A common assumption seems to be that if we had numerous small farms a large percentage of our population would be engaged in agriculture and wouldn’t be as productive elsewhere – but in looking at the Switzerland and Slovenian examples, the numbers of farmers per hundred acres cultivated is revealing: **Slovenia has 240 people per 100 acres and Switzerland 96 people, while New Hampshire has .8 people working every 100 acres of cropland. The United States average is 12 people.** In New Hampshire, that means that 0.26% of the population is involved in growing food. In Switzerland, farm workers translate into 2% of the population, and in Slovenia 6% of the population – which is relatively high, but still less than the current NH unemployment rate in May.

The lack of people involved in New Hampshire agriculture is also reflected in state resources dedicated to assisting agricultural production: **New Hampshire’s Department of Agriculture has less than 30 employees, while Vermont has over 120.** New Hampshire and Vermont farmers also receive almost nothing from federal programs (about 2% of farm income), while the average US farm receives 11%, Swiss farms over 50%, and Slovenian farms about 30%. It is clear in the mind of this author, based on this data, that **a major constraint on achieving greater food sufficiency in New Hampshire is not a lack of natural resources, but a lack of investment in infrastructure and the negative effects of current federal and state policy.**

One of the primary recommendations from the Whittemore School of Business Report on New Hampshire’s Local Food system is that New Hampshire establish a food production target, based on GSP, and form a **State Food Council** to develop policies and strategies to meet that food target. This would be a terrific first step to address the levels of employment in agriculture, the health and productivity of our soil, food, and people, and to increase the sustainable productivity of our New Hampshire land. ☀

Working Forests in Lee's Landscape

by Dick Weyrick, Lee Conservation Commission, Emeritus

Leaders in this country are facing a national security reality: natural resource sustainability plays an important role in the security concept. Of course, this idea is rooted in the area of energy, but it doesn't take much thought to understand that energy is connected to how and where we obtain food and the other essentials of our daily lives.

The farther the distances that goods travel to reach us, the more energy is required to get them here. This is not just an energy question, though, because it is easily apparent that the same distances also represent security challenges concerning how available essential goods might be in times of emergency. Just ask the people in Haiti.

There have been articles in this newsletter describing the importance of locally produced foods, and how beneficial it is



to have viable farms in our community, from a variety of perspectives. The same ideas can apply to forests, especially **working forests**. Most folks understand the roles that trees and forests have in various ways: storing carbon, cleaning the air, stabilizing soils, protecting watersheds and water supplies, providing habitats and a myriad of other useful purposes. These

benefits are now being called "ecosystem services"; they provide social and ecological benefits to all of us, usually without compensation to the owners of the land.

One of the amazing things about forests, particularly New England forests, is how resilient they tend to be. In some respects, it is a real challenge to keep trees from encroaching upon fields, lawns and areas (even parking lots!) that we would prefer to keep open for other purposes. The point is that it is possible to utilize trees and still have the forest retain its productivity. The principle has been demonstrated for centuries in other lands, and it is being demonstrated in New England and other parts of this country, in various ways.

The idea of a working forest, then, is that landowners can harvest, sell and otherwise utilize trees without sacrificing the multiple benefits that forests provide in terms of the ecosystem services that they represent. The American Tree Farm system and tree farm certification has been in place for over 60 years; the practicality and effectiveness have been demonstrated. We should note that New Hampshire has participated from almost the beginning, and that there are several certified tree farms in our community (including Maud Jones Memorial Forest, owned by the town). Locally produced forest products, including fuel, benefit several sectors of our economy.

In addition to strengthening local and regional sustainability, sustainable tree harvest programs can provide additional habitat benefits. Temporary forest openings provide habitat for animal species that would not be present in closed canopy forests. This increases diversity, but only if there are new openings becoming available as the older ones become occupied by young trees. So let's support not only local farms but also working forests in our community. ☼

Soil Health Workshop

Held May 10, 2010 Healthy soils have good physical, biological, and chemical characteristics. They are well aggregated, not compacted, store plenty of water, drain easily, provide sufficient (but not excessive) nutrients, have few plant pathogens, pests, and harmful chemicals, many beneficial organisms, low weed pressure...and they are resilient to potentially harmful events like extreme weather.

In this three hour workshop, Dr. Bianca Moebius-Clune from Cornell University focused on soil health basics, soil health management options, and diagnosing and managing soil constraints using information from Cornell Soil Health Test Reports. Participants learned why to consider using this test, when to test (in the spring), and how to take the test samples to identify soil constraints. Fifty local growers, agricultural professionals, and home gardeners attended this workshop at the Kingman Farm in Madbury on May 10, 2010. It was sponsored by Strafford County Cooperative Extension and the NRCS Conservation Innovation Grant Program.

Many local growers are intrigued by this test, and are preparing to send soil samples to Cornell for testing. (UNH no longer does the conventional chemical testing, but sends samples to the University of Pennsylvania.)

Learn more about the Cornell Soil Health Test at:

<http://soilhealth.cals.cornell.edu> and

<http://soilhealth.cals.cornell.edu/extension/manual.htm>



Question of the Week

Q: I've heard that ashes from my woodstove are good for my lawn and garden. If so, how do I use them?

A: Hardwood ashes act on the soil much like limestone, raising the soil pH (making it more alkaline). Unlike agricultural limestone, which can take six months or more to take effect, wood ash has high water solubility and quickly raises the soil pH. If you spread too many ashes, you can raise the soil pH higher than the optimum level of 6.5 to 7.0. A soil pH over the optimum level can affect plants by limiting the uptake of important soil nutrients needed by the plant such as phosphorus, iron, and magnesium.

Twenty pounds (a five gallon pailful) per 1000 square feet is a safe rate of wood ash application for a vegetable garden or lawn each year for soils already in the 6.5-7.0 range. A soil test will determine more precisely how much wood ash you need to bring or maintain your soil in the optimum range. Mix the ashes into the top few inches of garden soil. After applying the ashes, you should need no additional lime. The wood ash will also supply potassium and trace minerals.

Having your lawn or garden soil tested once every two years is wise. Visit <http://bit.ly/bJVzWT> to learn how.

Got questions? UNH Cooperative Extension's Info Line offers practical help finding answers for your lawn and garden questions. Call toll free at 1-877-398-4769, M-F, 9a.m.-2p.m., or e-mail us at answers@unh.edu
From the NH Department of Agriculture, Markets, and Food Weekly Market Bulletin, May 12, 2010 ☼

The UNH Compost Program

The UNH Compost Program was established in 1998. What began as a small, contained effort has since grown into a flourishing University-wide and community collaborative.

The UNH Compost Program demonstrates a visible and effective alternative to adding food waste to the wastewater stream and the landfill where it remains a waste product.

During the academic year, UNH dining halls serve almost 70,000 meals per week. Food disposed of at the end of the meal coupled with organic waste generated in



the preparation of meals leads to a tremendous amount of food waste. A 1999 UNH food waste study conducted by dietary interns in the UNH Department of Nutrition indicated that a total of

four ounces of food waste is generated per meal served, and results in about 9750 pounds (over 4 tons) of food waste per week. Combined, UNH collects between 25,000-40,000 pound of food waste from the campus dining outlets per month.

The dining halls have installed food pulpers to pulverize food waste into very small pieces, and to extract liquid. The result is a dry paste-like material that composts quickly due to increased surface area, thereby increasing the speed with which the food waste decomposes, eliminating the problem of odor. The UNH staff load buckets of waste onto their compost truck and take them to Kingman Farm, the University's 350 acre agronomy research facility and home to eight large compost windrows, each measuring 200 yards in length. Windrows are long compost piles composed of manure, sawdust, plant materials, and organic waste collected at UNH. Windrows that are lighter and coarser are newer and have not yet broken down into dark, crumbly, and more uniform compost. A tractor is used to dig a hole in the windrow into which the waste is poured and then covered.

For more information on the UNH Compost Program, visit www.sustainableunh.unh.edu or call 862-4088.

Information about Composting

Compost is a beneficial soil amendment that can improve soil texture and water-holding capacity, as well as increase nutrient levels in gardens, farms, landscape projects, and development.

Compost is created when microbial activity is present in a concentrated area of organic material. The microbes "eat" the organic material. The byproduct of this "eating" is a nutrient rich humus called compost. Composting provides a way to reduce the amount of waste added to

landfills and converts organic waste into a valuable soil amendment. By improving overall soil health, compost reduces the need for pesticides and fertilizers. On a larger scale, compost has been used in reforestation projects, as a topsoil replacement in areas damaged by erosion, and to remediate contaminated soil. Almost all classes of food waste can be composted. Examples include food waste such as bread, rice, pasta, fruits and vegetables, yard waste, and animal manure. However dairy, meats, fats, and oils should be avoided in large quantities because they break down slowly and can cause odors that attract rodents.

You can compost year-round. Although microbial activity slows down in the winter, it quickly recovers when the temperature warms, causing windrows to reach temperatures upwards of 160 degrees Fahrenheit.

From www.sustainableunh.unh.edu, UNH Office of Sustainability ☀

Commercial Poultry More Vulnerable to Disease

After studying thousands of commercial chickens, scientists discovered that birds on modern production lines are missing at least half of the genetic diversity their ancestors once had, making them more vulnerable to diseases such as avian influenza. "Just what is missing is hard to determine," said Purdue University animal sciences professor and co-director of the project, Bill Muir. "But recent concerns over avian flu point to the need to ensure that even rare traits, such as those associated with disease resistance, are not totally missing in commercial flocks."

The findings by Muir and an international team of scientists are the result of a worldwide study of commercial chicken populations, and were published in The Proceedings of the National Academy of Sciences. The team, which also includes scientists from USDA and Siloam Springs, Arkansas-based Cobb-Vantress, Inc., began to analyze the genetic lines of commercial chickens in the first study to look closely at the genetic diversity of poultry.

Researchers studied about 2500 birds and found that most of the genetic diversity in modern chicken was lost in the 1950s when wide-scale commercial production became commonplace. According to Muir, it is important to preserve non-commercial poultry and wild birds to protect their genetic diversity, and that interbreeding some of these birds into commercial lines might help protect the poultry industry. This might be the "ace in the hole" to help the industry meet future challenges, as traits such as disease resistance may be found among the rare alleles of other birds," Muir said.

Meatingplace.com, from the NH Department of Agriculture, Markets, and Food Weekly Market Bulletin, May 12, 2010 ☀

Draft Power in Lee

Many of the historic photographs of Lee include draft horses, mules, and oxen. The official Lee seal pictures oxen pulling a mast tree down Mast Road to send to England for the ships of the king. Historic farm dump sites will likely include rusty iron shoes for both horses and oxen.



Joel Miller of Wild Miller Gardens cultivates the earth with Queen, Poppy and Vickie.

There are still draft animals here in Lee, including oxen, donkeys, and draft horses. The Yankee Teamsters is an

active 4-H group of young people who raise, train, and work with their oxen. They do demonstrations at many local fairs and at the annual School to Farm Day at UNH that does farming demonstrations for over 1000 Seacoast 4th graders every June.

There are several teams of draft horses in Lee, including Belgians, Percherons, Suffolks, and Haflingers. They do many types of farm and forestry work: logging, plowing, cultivating, mowing, hay tedding and raking, and giving hay and sleigh rides in summer and winter.

One advantage of a working draft team is that, unlike a tractor, it can reproduce itself. It can also help to grow its own fuel. Farm field work with horses results in less soil compaction than work with a tractor. Horses are better able to do some small logging jobs that require selective cutting and tight maneuvering, where the larger logging equipment may not be practical. For example, some of the logs needed for the repair of the Town Forest bridges were moved into place by a Whisper, a Haflinger pony. Even a larger draft horse might have had difficulty maneuvering in the forest, so the large pony was well suited to the job.

Lee has a great variety of both large and small farms, with a variety of jobs for both tractors and draft animals. It is good to know that horses and oxen still have an integral place in our agricultural life. ☀

RIVER OF BIRDS: Tropical Travelers, Summer Residents

by *Anne Tappan* Steppingstone Farm, Lee

Weesee, weesee, weesee. Black-and-white Warbler. April 30. Right on time! The high-pitched persistent notes of this tiny, striped bird signal the annual swelling of the river of birds migrating north from tropical wintering grounds to northern breeding territories. Within the next few days the river swells with the arrival of Scarlet Tanagers, Great-crested Flycatcher, Ovenbirds, Black-throated Green Warblers, Catbirds, Rose-breasted Grosbeak and more.

New Hampshire is home to over 180 species of breeding birds. Seventy or so species winter south of the United States. They are here for the summer only, for a brief, intense breeding season, drawn by the abundance of insects. These birds fly north hundreds or thousands of miles from their wintering grounds in Mexico, Central America, South America and the islands of the West Indies. Short distance migrants winter in the southern United States, especially along the Gulf coast and Florida.

Rates of travel vary. Many species take the overland route north through Central America and Mexico and on to the United States. The Black-and-white Warbler is a slow migrant, averaging about 20 miles per day. American Robins cover about 37 miles per day. The Gray-cheeked Thrush is a faster migrant, averaging 130 miles per day during the last part of their northward journey. Some species, including the Ruby-throated Hummingbird, fly non-stop (500 miles) across the Gulf of Mexico, departing from the Yucatan Peninsula. The trip takes 18 to 20 hours – no food, no water, and no rest until land fall on the Gulf coast.



Most small birds, including songbirds, migrate at night, stopping to rest and feed, primarily on insects, during the day. Call notes of night flying songbirds – pips, peeps and chirps – can be heard as the birds travel through the darkness.

The males typically arrive first and claim nesting territories. Singing is one way birds proclaim and maintain their territory. The nesting territory needs to be comprised of the right mix of vegetation (age, composition and structure) to meet the species requirements for courtship and a nest site and be large enough to provide food, primarily in the form of insects.

The Scarlet Tanager is a brilliant red bird with black wings that conducts its life in the forest canopy and needs sizable blocks of unfragmented mature forest. In landscapes that are less than 40% forested, more than 100 acres are needed to provide suitable tanager habitat. Where the landscape is 70% forested, ten to

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twenty acres are sufficient to provide suitable habitat. If an area has high suitability for one species, many others benefit. Bird species typically associated with the Scarlet Tanager in northern forests include Veery, Black-and-white Warbler, Wood Thrush, Ovenbird and Yellow-bellied Sapsucker, a migratory woodpecker.

During the summer, songbirds, including year-round resident birds that frequent bird feeders, eat primarily insects, caterpillars and spiders. Baby birds grow quickly on a high protein insect diet. The Hermit Thrush incubates 4 eggs in a compact nest, typically on the forest floor, for 11 to 13 days.



Young are fed in the nest for less than two weeks. The young birds, feathered but barely able to fly, fledge (leave the nest, never to return) in 11 to 12 days. The parents continue to feed the young for a week or two. The juvenile birds are then on their own. Pairs may reneest and produce a second brood.

An article by David S. Wilcove in the Living Bird (Jan. 2009) describes just how many insects are consumed. An estimated 127 million Yellow-rumped Warblers, weighing in at 0.43 ounces, nest in the northern forests of the United States and Canada. That is around 3.4 million pounds of Yellow-rumped Warbler. Each bird eats around 35% of its body weight in insects daily. That is one species consuming over 1 million pounds of insects per day during its spring and summer stay. Add in the populations of other common species, 5 million pounds of Red-eyed Vireos, 50 million pounds of Robins, to name just two of dozens of species of songbirds, scouring, fields and forests, lawns and gardens for insects, and you have a huge, unseen and perhaps unappreciated, insect control service.



The woodlands, wetlands, brushy fields and grass lands of Lee are the summer home to many species of migratory and year-round resident birds. I encourage you to stop, look and listen - really look and listen - as you spend time outdoors this spring and summer. Watch for flashes of color and listen for bursts or lengthy repetitions of song. Your neighborhood wild lands are likely the breeding territories of dozens of bird species. Cornell University Laboratory of Ornithology www.allaboutbirds.org is an excellent resource for bird identification, life history and song recordings. ☀



How to Start a Flock of Laying Hens

by *Blaine Cox*

Starting and maintaining a flock of laying hens is quite easy if you know just a few basic “how-to” guidelines. A family of four will be well supplied with a flock of about 10 hens which will produce about 5 eggs per day. Most layers are White Leghorn or Leghorn-type crosses. However, the hens of other breeds raised for both meat & eggs or “dual-purpose” breeds are great layers as well – these include Rhode Island Reds, New Hampshires and Plymouth Rocks.

Laying hens can be started in one of three ways – fertilized eggs, day-old chicks and young pullets. Since hatching fertilized eggs requires certain skills not required by the other two methods and usually requires a specialized piece of equipment (incubator), this is the least recommended method for the beginner. Young started pullets (eight-weeks to six-months old) are the most expensive because someone has already taken them through the incubation and brooder stages. However, they are the easiest to manage.



The most practical and economical alternative are day-old chicks. Incubation skills and equipment are not needed, but brooding facilities are necessary. However, a simple brooder is fairly easy to create and manage (see below). Whenever purchasing either day-old chicks or young pullets, make sure the birds have been vaccinated for diseases. Sources of day-old chicks include local hatcheries, feed stores and mail-order.

You will need to know a couple terms – “straight run” means that the chicks have not been checked for gender and you will most likely get males and females. If you want laying hens it is worth paying a little more for birds that have been sexed and getting all females. Cockerels (immature males) mature into roosters. Pullets (immature females) mature into hens. You do not need any roosters in your flock to get eggs from your hens.

Brooding day-old chicks requires simply the creation of a small enclosure in which you can keep your chicks protected from predators, keep them warm and provide them with water & food. Brooders can be as simple as a cardboard box and a clamp lamp. Set up your brooder at least 24 hours in advance in order to regulate your temperatures.

The four elements of a good brooder are – a nonslip surface (paper towel for the first 5 days and wood shavings after that); no drafts (provide a covering or lid); a warm area and a cool area (provide space directly under the lamp as well as space away from the lamp);

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and clean water & food. The brooder should be sized to allow one square foot per chick. Using an incandescent light bulb as a heat source, start at 95-degrees, at chick level and lower by 5 degrees each week for 5 weeks until 70 degrees is reached.

Waterers should be shallow (day-old chicks can drown easily) and replenished with fresh clean water at least twice daily. "Chick Starter" feed is available at feed stores and many hardware stores.



The "chicken coop" in many respects is simply a larger version of a brooder – protection from predators, sealed to prevent drafts in cold weather but with ventilation to provide fresh air, clean litter material that is replenished as it becomes soiled and plenty of fresh water and feeders that are kept clean and dry. "Layer pellets" or "Layer mash." The coop should be sized to provide a minimum of 2 square feet per hen inside and an outside "run" at least as big as the coop (and preferably larger). The coop has two added features – roosts and nests. Roosts are perches for the birds to rest upon at night, should be 2 feet above the floor and provide 8 inches per hen. There should be at least one 12 inch x 12 inch x 12 inch nesting box per bird, preferably in a darker corner of the coop or covered at the entrance to provide seclusion.

Pullets will begin laying eggs between 20 and 24 weeks of age and maintain relatively steady production for about two years, after which production will begin to drop off. Good hens lay two eggs on average every three days. Raising laying hens is an enjoyable and simple hobby ... and fresh eggs are a great bonus! ☀

How to Raise a Pig for Meat

by *Blaine Cox*

Raising a couple pigs for pork and lard is not as difficult as many believe as long as you have adequate facilities and follow a few simple rules of pig farming! And there is nothing better than your own fresh bacon on a weekend morning or baked goods using real leaf lard . . . A 200 pound pig (live weight) will give about 55 pounds of ham and shoulder, 40 pounds of bacon and loin, plus lard, sausage, pig's feet, etc. (Source: Mother Earth News, Issue #2 March/April 1970). The total will be about 125 pounds of pork products from one pig.

The most economical way for the beginner or backyard farmer to get started is to purchase piglets that are 8 weeks-old or "weanlings" and raise them to market weight (200-225 lbs.) at 6 months of age. It is standard practice to de-worm piglets before they are sold and male pigs should be castrated to avoid "boar taint."

Today's modern hog breeds are bred to be lean & meaty, not fat like years ago when lard was in demand. Common modern breeds include - Berkshire, Chester White, Landrace, Duroc, Hampshire and Yorkshire. When buying a weanling – health, vigor & source of the animal is more important than the breed. Very important (1) the place you will keep you pigs **MUST BE READY** before you get them home and (2) plan how you will load & transport your pigs to market **BEFORE** you get them in to the place you will keep them. Pigs are incredibly strong and will push their nose through any opening you leave for them, and escape. In addition, a 200 pound pig does not easily go anywhere he does not want to go, including the butcher shop!

Piglets require shelter that is dry and free of drafts. Face any opening away from the prevailing winds and away from where water puddles. They are nesting animals and like loose, dry bedding such as hay or wood shavings to sleep in. In hot weather, pigs need protection from the sun and heat. Shade provided by trees or a roof structure is essential and a mud-wallow is very beneficial.

Pigs raised outdoors on pasture ground find what they need in the way of minerals and other intangibles, resulting in better tasting, more well rounded pork flavor. Fencing options include wood posts & wood panels, woven wire hog fencing and electric fencing. Electric fencing is the least expensive, most effective and easiest to set up and move.

Pigs can be fed in a homemade wooden trough or a commercially made self-feeder. "Hog Pellets" are available in 50 pound bags at feed stores. Pigs should have access to clean water at all times. Use as a waterer a container that the pigs cannot easily upset, such as a heavy rubber pan set in to an old automobile tire or use a cut-off steel drum.

Pigs grow fast! They reach harvest weight of 225 pounds at six-months of age, therefore averaging 1.25 pounds of weight gain per day. A reputable slaughter house should be found that is clean and well managed. The slaughterhouse will use a "cut sheet" to ask you what types of cuts you want (roasts, chops, steaks), the sizes of the packages (number of servings) and will arrange to have the smoked meats (bacon, hams) sent out and returned.



Raising a couple of pigs for meat can be a very enjoyable and rewarding hobby. Pigs are very intelligent and surprisingly clean if raised in a large enough pasture. The quality and flavor of the pork is better than you ever imagined! ☀

Understanding Heritage Poultry

by Joe Marquette

It is wonderful to see, hear, and read about the current resurgence of interest in heritage fowl. They are a dear possession in the passing of time, and time has, indeed, passed since they were last recognized by the broader community for the intrinsic value they offer to the maintenance of local culture and the establishment of sustainable food systems.

Over the course of the last several decades of neglect, they have suffered much in the way of poor breeding. It cannot be understated that the stability of their future depends on a renaissance of active engagement in good breeding methods that aim first and foremost at the revival of their useful farm qualities. Every homestead, even the most humble, is able to contribute to this reemergence of traditional farming fowls.

In early summer 2009, major hatcheries across the country sold out. The demand is so great that stock cannot be procured. At first impression, this might lead one to concur that the fate of heritage fowls will be thereby assured. However, if the destination of the majority of these fowls is to be maintained only as a laying flock, without the presence of a cock for in-house flock perpetuation, then this boom is sadly finite. Many hatcheries depend on the same small breeders for their stock. If one depends on



hatcheries to maintain the requisite biodiversity for the preservation of our breeds, this dipping repeatedly back into the source only repeats the genetics, it does not improve or diversify them. Moreover, there is real potential for the genetic exhaustion of the flock of origin. Without other homesteaders working to develop lines of their own, the flocks of origin have no possibility for the refreshment of their own bloodlines.

I have heard many as of late state how much they enjoy their chickens. Internet sites are abuzz with eager enthusiasts, but are these same folks open to taking the relatively simple step of becoming a breed steward? Let us hope, for the sake of our heritage breeds and the future of our sustainable, small-scale, locally focused agriculture, that the rush of newness and sentimentality does, indeed, mature into an understanding of these breeds' need for us to resume the stewardship that was once the cause of their thriving.

Foundational Breeds vs. Composite Breeds

Heritage breeds of chickens can be divided into two groups: heirloom, or foundational, breeds and composite breeds. An heirloom heritage breed is one of the many foundational breeds of poultry whose origins are obscured by centuries. They are the fowl, which simply

are. They are part and parcel of their place of origin. Their time of origin can only be speculated. Their mode of origin, i.e. parent stock, etc..., can only be guessed. They shaped the indigenous diet of their place of origin as much as they were informed by that same diet. These indiscernible beginnings make them irreplaceable. They are a particular treasure. Once extinct they will never be revived. Too many are on the brink of oblivion. They are the Dorking, La Fleche, Houdan, Crevecoeur, Old English Game, Redcap, White-faced Black Spanish, Ancona, Sicilian Buttercup, Brahma, Cochin, Hamburg, and, perhaps, the Dominique, to name but a few. Should they disappear it would be to our cultural impoverishment, another bridge burnt in the wake of this hullabaloo we continue to call "progress".

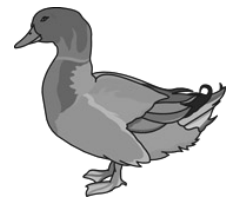
Composite heritage breeds are those breeds that rose up in the hustle and bustle of international trade and the push for progress that was the rhythm of the 19th and 20th centuries. The opening of the Far East in the days of the Clipper Ships led to the importation of new breeds of poultry, drastically different from the old vanguard of the European front. Their arrival in Europe and the Americas eventuated a fusion of bloodlines, resulting in many relatively new breeds of poultry that went on to be highly influential in the poultry circles of the 19th and especially the 20th centuries. They are the Faverolles, Plymouth Rock, Rhode Island Red, Wyandotte, New Hampshire, Orpington, Australorp, and Holland, among several others. Though theoretically replaceable, insofar as they could be developed again by following the original breeding program, which led to their existence, they hold such a place of importance historically and culturally that their loss would be that of an entire epoch.

Heritage Ducks and Geese

Happily, ducks and geese have been shielded from the industrial hybrid invasion. The Pekin, which dominates industrial duck production, and the Embden, which dominates industrial goose production, are both heritage breeds. The difficulty here is not that these are raised; it is that only these are raised. There are many other breeds of duck and goose that could, and should, grace our tables. As we slowly awaken from the monocultural agricultural slum that has been suffocating our food supply for too long, we will begin to rediscover these breeds that are worthy of our attention.

The common methods of raising ducks and geese used by industry might also be considered and then, perhaps, reconsidered. The common method of raising waterfowl for agribusiness is the production of green ducklings and goslings.

These are birds that are pushed, with high levels of grain input, for the maximum growth potential in the shortest period of time. Seven to ten weeks is all they're given and then off to the slaughter. This method leads to



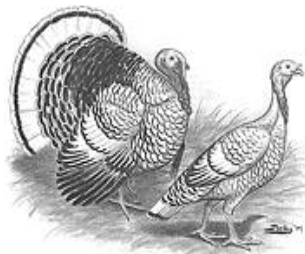
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exaggerated fattiness and birds that are too young to have acquired the finer flavor that can only come with a slower rate of maturation. The result are greasy birds with less flavor. Insofar as it is generally difficult to procure birds raised otherwise, this inferior product damages the general reputation of duck and goose meat, which is, when well-raised, of the highest, tastiest quality. By raising ducklings and goslings on healthy forage, allowing more time for a more natural rate of maturation, and utilizing different breeds that are generally less fatty, the farmer is able to offer a vastly superior product to his or her consumers.

It should be noted, though, that, as the demand for duck eggs begins to grow in our society, agribusiness is busy developing industrial hybrid duck layers to replace our cherished, heritage-rich breeds. Let us not let them overshadow our ducks the way that hybrid chicken layers were allowed to displace our old-times favorites. Our food is either an extension of our culture or an extension of our profit-driven industry. If our culture is naught but an outlet for profit-driven industry then we are, indeed, lost.

Heritage Turkeys

The difference between a heritage breed turkey and one of the shocking broad-breasted mutant varieties used for agribusiness is so outstandingly evident that the reality can be left to argue its own point. Broad-breasted turkeys are sorry creatures, unsuited to farm life, lacking any sort of immune system, incapable of foraging for their own food in any meaningful way, and completely unable to reproduce naturally, thus necessitating human intervention with every new generation of ill-fated poults. This is not the way to feed a nation. Benjamin Franklin looked with such admiration at the turkey, thinking it worthy of becoming our national symbol. One might wager that his respect would not have extended to these by-products of agribusiness' push for ever greater profits.



On the other hand, heritage turkeys are absolutely charming. They have great personality. Are they dumb? Well, maybe they aren't the brightest bird in the barnyard, yet they are comical and often surprisingly affectionate. Indeed, a heritage turkey is a bit like a dog, following its owner about, begging for food, and vying for attention. They reproduce naturally, make proof of exceptional mothering abilities, and possess an immune system that is not threatened by nature. Moreover, they are superb foragers, being capable of ranging for much of their daily food. Lastly, they are, indeed, much tastier than anything agribusiness has thrown our way. Here's to the reemergence of culture and flavor!

For further information on heritage poultry, contact Joe Marquette at www.yellowhousefarm.com ☀

can give you great joy as you now have seed for your own garden for the next growing season and gives you a wonderful gift of seed to give to your friends and family for their garden. This is a practical skill and one filled with love and hope for the bountiful harvest of future years.

Start by saving seed from your beans, it is the easiest crop to start with. Beans are a wonderful crop to grow because they are delicious and because they are a legume that is good for the soil. Legumes fix nitrogen in the soil which makes nitrogen available for other plants that would not otherwise be able to access that nitrogen source. There are many types of beans that are incredibly beautiful. Legume seeds are usually left on the plant to dry and then the seeds can be removed from the pods when they are dry. There are various methods to make the shelling process go faster than by shelling them all by hand, though this can be satisfying and fun if you get to sit out on the porch with your family and friends and have a bean shucking party.

To save seeds from your favorite tomato plant, you can pick some of your top notch tomatoes and squeeze the tomatoes with the juice and seeds into a container. Add a cup of water to the mixture and let it sit for several days until the mixture ferments and a layer of fungus covers the entire top of the mixture. Then pour the mixture into a strainer and wash the seeds clean in the strainer under running water. Wipe the bottom of the strainer with a towel to get rid of extra water and then dump the seeds out onto a glass or ceramic dish to dry. To ensure even drying and to prevent the seeds from bunching together, try to stir them at least twice a day. Coffee filters can also be a good surface to dry tomato seeds on because they tend to wick the moisture away.

For more information about seed saving and to learn more about the life cycle of your favorite crops you can look to the book [Seed to Seed: Seed Saving and Growing Techniques for Vegetable Gardeners](#), by Suzanne Ashworth.

It's Tick Season: Protect Yourself!



Blacklegged ticks (formerly called deer ticks) are active now throughout much of New Hampshire. New Hampshire is home to 15 species of ticks, many of which can deliver a nasty infection, but infected blacklegged can transmit Lyme Disease, a potentially serious bacterial illness. "...the risk of acquiring Lyme disease is greatest in June and early July..." says Alan Eaton, UNH Extension Professor.

For specific concerns or questions about tick-borne diseases, call the NHDHHS, Bureau of Communicable Disease Control at 271-4496 or 800-852-3345 x4496 (NH only). From the *NH Department of Agriculture, Markets, and Food Weekly Market Bulletin*, May 19, 2010 ☀

Resources for Aspiring Farmers

Education, Training & Employment Opportunities in Sustainable Agriculture

www.sustainableunh.unh.edu
discoversustainability.org

Practical Farmer Training Programs

Angelic Organics Learning Center - Farming Training (IL) www.learnrowconnect.org/farmer

Farm Life Ecology: A Summer Field and Table Intensive at Green Mountain College (VT)
www.greenmtn.edu/farm_intensive.aspx

The Farm School - Practical Farm Training Program at Maggie's Farm (Athol, MA)
www.farmschool.org/prog_practicalfarm.html

MOFGA Journeyman Farm Training Program (Unity, ME) www.mofga.org/Programs/Journeyman/tabid/228/Default.aspx

New Entry Sustainable Farming Project (Lowell, MA)
www.nesfp.org

Organic Growers School (NC)
www.organicgrowersschool.org

UC Santa Cruz Apprenticeship in Ecological Horticulture (CA) casfs.ucsc.edu/training/index.html

UVM Summer University at the Horticulture Farm and Farmward Bound: Preparation for Farm Operation Leadership (VT) www.learn.uvm.edu/igs/food_systems

Resources for New Farmers Great Bay Agricultural Resources Network (G-BARN) gbarn.pbworks.com/

The Greenhorns Guide for Beginning Farmers
www.thegreenhorns.net/reading.html

Land for Good
www.landforgood.org/

National Young Farmers Coalition
www.youngfarmers.org

New England Landlink
www.smallfarm.org/main/for_new_farmers/new_england_landlink/

New England Small Farm Institute
www.smallfarm.org

Young Farmers Conference at Stone Barns Center for Food & Agriculture (Pocantico Hills, NY)
www.stonebarnscenter.org

Additional Educational Resources for Farmers & Gardeners

NH D Acres Organic Farm & Educational Homestead (Dorchester, NH) www.dacres.org

NH New England Vegetable and Fruit Conference (Manchester, NH) www.newenglandvfc.org

NH NH Department of Agriculture, Markets & Food
www.agriculture.nh.gov

NH NH Farm & Forest Expo (Manchester, NH)
www.nhfarmandforestexpo.org

NH NH Master Gardener Program
extension.unh.edu/agric/agmastqd.htm



NH Northeast Organic Farming Association (NOFA) - NH www.nofanh.org

NH UNH Cooperative Extension
extension.unh.edu/events/

NH UNH Food & Society Initiative, University Office of Sustainability www.sustainableunh.unh.edu/fas

NH Yellow House Farm Chicken School (Barrington, NH) www.yellowhousefarmnh.com

MA New Entry Sustainable Farming Project - Livestock Field Schools
nesfp.nutrition.tufts.edu/resources/

MA NOFA Annual Summer Conference (Amherst, MA)
NOFA Chapters in each state also offer conferences & workshops www.nofa.org

ME MOFGA Common Ground Fair (Unity, ME)
MOFGA Farming Training Project Workshops (various ME locations) www.mofga.org

VT Fair Winds Farm Draft Horse Workshops (Brattleboro, VT) www.fairwindsfarm.com

UNH Academic Programs

UNH College of Life Sciences and Agriculture (COLSA) Undergraduate and graduate programs
www.colsa.unh.edu

UNH Thompson School of Applied Science
2-year degree programs in Applied Animal Science & Horticulture Technology www.thompsonschool.unh.edu

UNH Dual Major in EcoGastronomy
www.unh.edu/ecogastronomy

New Major in Sustainable Agriculture and Food Systems - B.S and B.A. will be available to students this fall, 2010, and is an exciting addition to UNH.

Sustainable Agriculture in Higher Education

The USDA maintains a nationwide database of university-based educational and training opportunities in sustainable agriculture. Search the database at: www.nal.usda.gov/afsic/pubs/edtr/EDTR2009.shtml

Farming Internships & Apprenticeships

ATTRA - <http://attra.ncat.org/attra-pub/internships/>

MOFGA - www.mofga.org/Programs/FarmApprenticeships/tabid/502/Default.aspx

NOFA - www.smallfarm.org/main/for_new_farmers/north_east_workers_on_organic_farms/

UNH - cathy.neal@unh.edu

World Wide Opportunities on Organic Farms (WWOOF) www.wwoof.org

•Backdoor Jobs, www.backdoorjobs.com/farming.html

•The Greenhorns Blog, thegreenhorns.wordpress.com

•NOFA, www.nofa.org/exchange

•Northeast Farm & Food Network, www.nefood.org

•Sustainable Food Jobs, sustainablefoodjobs.wordpress.com



From the University Office of Sustainability -
www.sustainableunh.unh.edu discoversustainability.org

Laurel Cox, Community Planning Coordinator
Town of Lee
7 Mast Road
Lee, NH 03861



Calendar of Events

Lee Cooperative Farmers Market

Place: Old Lee Fire Station, Recycling Road
Time: Every Thursday, 3-6 p.m. for the summer season

Barrington Natural Heritage and Agricultural Fair

Place: Warren Farm, Route 4
Time: Saturday and Sunday, August 28-29

Lee Fair Day

Place: Jeremiah Smith Grange, Lee Hook Road
Time: Saturday, September 11, 10 a.m.

Thank you to Amy Daskal for graciously repainting the Lee Farmer's Market signs!

3rd Annual Little River Festival

Place: Little River Park
Time: September 25

Lee Backyard Farm Initiative

Check the Lee website for places, dates and topics:
www.leenh.org

August is NH 2010 Eat Local Month

Excerpts from the Lee Master Plan, 2005-2016

Introduction

"As property owners, residents, and workers, we received a valuable investment from the past which, once expended, cannot be replaced. We can use it carefully and with restraint or we can squander it—but we can never really own it. We merely have it in trust for a time to use as wisely as we can and then pass it on to the future. Those who follow us will inherit from us those things, tangible and intangible, that they receive from us."

---George Gilman, Former Commissioner, NH Department of Resources and Economic Development

Agriculture

Mission

"the agricultural mission of the Town of Lee is to promote a "Sense of Place" within the community. Our natural resource base and our rural agricultural heritage are primary and integral components of the character of the Town of Lee, and the future character of the town will be determined largely by the wise and sustainable use of

these resources. Land, water, and air resources are basic to the quality of life, and must be used wisely and protected, while providing an affordable place to live."

Some Agricultural Goals

Encourage an economically viable and vibrant rural community by shaping and guiding a sustainable, compatible balance between a working landscape that includes the traditional land uses, such as farming and forestry, with resource protection and "smart" managed residential and commercial growth.

Encourage the Town to commit to follow a responsible and sustainable land stewardship ethic through its regulatory management of the Town's natural resources.

Increase awareness of the importance of local agriculture to the past, present, and future of our town and recognition by the community that the ability of local agriculture to be economically sustainable is essential to the vitality of the Town of Lee. ☀