Guidebook for Beginning Farmers

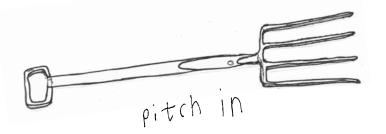
ZINE VERSION • SEPTEMBER 2010

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n. a novice or new entrant into agriculture

The Greenhorns is a non-profit grassroots organization based in New York's Hudson Valley. We work to promote, support, and recruit young farmers nationally. "The Greenhorns" is also the title of our documentary film, due out in autumn 2010, which explores the state of the young farmer in America today. We put on events and produce new media and resources for and about young farmers. Our projects include a blog, weekly radio show, wiki, guidebook, young farmer mixers, and educational outreach and research in K-12 classrooms. Please visit our website to join our mailing list and keep your ear to the ground.

This guidebook is written for young farmers by young farmers. It is meant to help you plan your professional trajectory into the field of sustainable agriculture. This is the *Condensed Fourth Edition of the Greenhorns' Guide for Beginning Farmers*, intended to briefly cover some of the major areas of institutional support for young farmers, likely venues of learning, and useful references. We hope that you come away from this guide with the sense that you too can approach the many hurdles of a beginning farm career with confidence, aplomb, and improvisational zip. For a more extended guidebook please visit and contribute to our collaborative information-sharing wiki.





thegreenhorns.net thegreenhorns.wordpress.com youngfarmers.org serveyourcountryfood.net foryoungfarmers.wikispaces.com



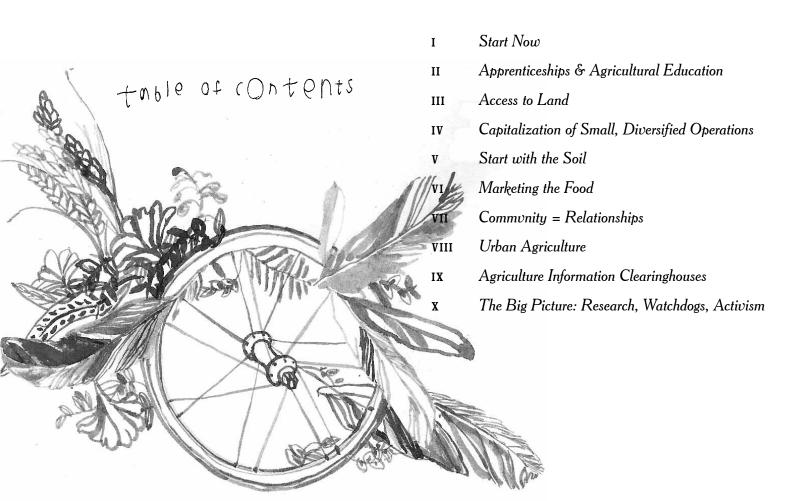
Why do we need young farmers?

This guidebook was written with the understanding that it is our generation's collective task to reconfigure the country's food system, one farm at a time. Actually, we have a lot of other systems to fix, too, but for us farming is a direct, accessible, and satisfying place to start. After all, it is agriculture that makes our culture possible, agriculture that is universal to all human life, and agriculture where our economy most deeply affects our ecology. Whether you read Pollan or Heinberg, the analysis is in: our food system is serving us badly. It is over-concentrated, over-industrialized, and strongly lobbies for subsidy dollars that keep mega-agri-hegemons feeding corn pap to our most vulnerable citizens. The kids get sick, the rivers get sick, the soils get maxed out, and black plastic blows eerily across the horizon – and in other countries it's even worse.

Yes! you say. I know it's a big kettle of fish, a big consortium of corrupt, corporate, GMO factory fish that shit up the estuary. But what can we do about it?

We can serve our country food at the scale that is appropriate to our part of the country while keeping the country country, and bringing a bit more of the country into the city as well. We can innovate! We can collaborate! We can launch CSAs and food-processing kitchens, raise animals, slaughter them, butcher them, make jam, collect honey, age cheese, harvest fruit, sow grain, and bake good bread. We can start small, interlocking local food businesses that keep money flowing within our community instead of disappearing out of it. We can work like oxen in the field and eat like kings in the kitchen and, if we stick to the plan, our kids will grow up right in a healthy place with rosy cheeks.







Determination is invincible.

"A whole stream of events issues from the decision, raising in one's favor all manner of unforeseen incidents and meetings and material assistance, which no man could have dreamed would have come his way. Whatever you can do, or dream you can do, begin it. Boldness has genius, power, and magic in it. Begin it now."

– JOHANN WOLFGANG VON GOETHE, FAUST AND W.H. MURRAY, THE SCOTTISH HIMALAYA EXPEDITION

To us, the farmer is the perfect patriot. The farmer is self-sufficient, productive, independent, hard-working, community-spirited, and accountable. The farmer manufactures sugar from sunshine! Cowboys and pioneers have always been American icons, but even now in this Obama Nation the economic, social, and trade frameworks are deeply inhospitable to our small- and medium-scale farmers. Since the Farm Crisis of the 1980's, we've suffered enormous losses in farmers, farmland, and rural economies. Urbanization and suburbanization have continued to overtake the countryside, while difficult market conditions have led to the attrition of farmers and a crisis of senescence. As recently as 1950, over 15% of Americans were farming.¹ According to the most recent USDA Census of Agriculture (2007), however, only about 1% is left.² But the news is not all bad; whereas in 2002 only 3% of all farmers were under the age of 35, a surge of new entrants in American agriculture has doubled that number to 6%.3 This is certainly a welcome sliver of good news, but there is still a long way to go.

To enter farming requires education, planning, fortitude, and patience. Maybe you are already signed up for a summer apprenticeship. Maybe you are just super tuned-in to food and are dreaming of an agrarian future. Maybe it's winter. Whatever the factor, there are quite a few things you can do right now to get closer to your goal:

get strong: run up the stairs, bike to work, establish good posture, begin a stretching routine.

get nimble: start a savings account, pay off all debt, learn to can/jam/preserve food, attend skill shares, workshops and practical trainings, network aggressively, practice thrift, scavenge and cache useful implements and well-built kitchen supplies, learn to cook cheaply, learn carpentry, basic plumbing, machine repair, welding, and above all, skill-share with friends.

get community: repair any strained relations with land-owning friends and family, show up at community events, stay in touch.

get opportunity eyes: start composting NOW, observe the landscape, drainages, and land use, read natural history, read human history.

get ready to work: help out on a farm near where you live, be an opportunistically friendly neighbor and helper in your

community, apply yourself fully to the task at hand, do not flinch when it is hot and smelly, accustom yourself to service.

If you are thinking casually about farming for a few weeks one summer, look into World Wide Opportunities on Organic Farms (WWOOF). You can do it anywhere in the world, work for free, eat for free, stay for free, meet fantastic organic farmers, and help them with their most menial tasks. Harvesting olives in Italy sounds glamorous — and it is — just remember that hard physical work for 6+ hours a day in the sunshine takes a bit of getting used to, no matter how scenic the views.

"A garden requires patient labor and attention. Plants do not grow merely to satisfy ambitions or to fulfill good intentions. They thrive because someone expended effort on them."

- LIBERTY HYDE BAILEY





"[Agriculture] is a science of the very first order. It counts among it handmaids of the most respectable sciences, such as Chemistry, Natural Philosophy, Mechanics, Mathematics generally, Natural History, Botany."

– THOMAS JEFFERSON, FROM A LETTER TO DAVID WILLIAMS, 1803 We cannot stress enough: if you are serious about farming or even serious about finding out whether farming is for you, apprenticeships are the method. Our surveys of the young farmers in our network have shown that this is where the vast majority started their career. Lots of folks start out with a few weeks of casual WWOOFing or volunteering for a few days at a local farm, but frankly, a season-long apprenticeship is a far more satisfying, educational, and holistic introduction to farming.

An apprenticeship is a low-paid work/education exchange in which a new farmer learns from an experienced farmer. Be prepared to work very hard at all phases of your farm career, but particularly in this first phase. There is grunt work and a hierarchy of tasks in farming, and you'll have to test your mettle by doing the lower-rung duties. Thankfully you'll get to be outside most of the time and even boring farm tasks will leave you time to meditate and free-associate. It's not like tedious data-entry!

The first step to configuring your sequence of apprenticeships is to figure out, generally, what you want to do. In many cases, your first farming experience will answer many of these questions. What do you want to farm? Are you an animal person, a vegetable person, a cut-flower person? Do you like interacting with the eaters? Is your focus inner-city nutrition or high cuisine? Do you like food-processing/value-added products? Do you have the discipline for dairy? The might for fieldwork? The patience for regulatory labyrinths? The stamina for farmers markets? Some folks decide that they don't want to be farmers and instead start other farm-based businesses, like specialty tool companies. We're also in need of many more young butchers and veterinarians.

One big key to being a useful farm apprentice is clearly understanding the task at hand. Try not to ask too many questions all at once, but observe carefully like a spy. You'll be surprised what you can discern when you open your eyes wide and pay attention to what is happening. Learn the systems and the details that make those systems work – where do the various pieces of equipment live? As you muck out the chicken coop, quietly inventory design flaws, and inadequate ventilation; later you'll be able to apply these lessons to your own operation. The experienced farmer will value your observant nature and reward you with far deeper insight into his/her farm operation. Watch what they are doing, how they are moving, where they are spending time, and what they are pausing to observe. Work smart, watch what the farmer is watching, keep a journal, and read every book on his or her shelf.

"If I had influence with the good fairy who is supposed to preside over the christening of all children, I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life. If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are the fertile soil in which the seeds must grow. If a child is to keep alive his inborn sense of wonder, he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in."

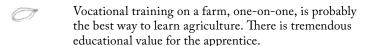
– RACHEL CARSON THE SENSE OF WONDER, 1965 Don't show up at the farm unprepared!



Educational Value

Recently, farm apprenticeships have come under some attack (especially in California and Oregon) from the Department of Labor as "free labor." It is important for us as a community to embrace the reciprocal and intergenerational nature of the apprentice/farmer relationship and to be explicit in our expectations of that relationship. Below are some of our thoughts on the matter:





Brand new apprentices are not effective laborers: they are clumsy, awkward, and bad at using farm equipment. They are a burden to the farmer and in the beginning of the season can slow things down just when it would be great for things to speed up. Farmers who take on apprentices do so for a few reasons: affordable labor, they likely enjoy the enthusiasm and excitement of the younger generation on their land, and they want to grow more farmers.

Critics might see yurt-living interns as "free labor" or "young hippies working for old hippies," but there is something quite fair about starting off at the bottom of the ladder doing the most menial tasks. Having experience doing the grunt work means you'll be more likely to design a farming system that is comfortable and efficient to manage and work.

Farming is hard work, but establishing a farm is backbreaking. Doing it while paying a living wage for your apprentices when you aren't making one yourself seems quite unreasonable. Plenty of folks want to learn how to farm and want to live on a farm – why shouldn't they be allowed to barter their energy for housing, food, and training?

Sharing is caring. Agriculture may be quite mystifying in our culture, but it needn't be. If we are all committed to the overhaul of our food system, then there is no competitive disadvantage to sharing.

Recommended Reading

"Exploring the Small Farm Dream: Is Starting an Agricultural Business Right for You?" A decision-making workbook published by New England Small Farm Institute: www.smallfarm.org/main/for_new_farmers/exploring_the_small_farm_dream

Becoming a Biodynamic Farmer or Gardener: A Handbook for Prospective Trainees. Written and compiled by Malcolm and Susan Gardner: http://www.biodynamics.com/node/13

Buying and Setting Up Your Small Farm or Ranch by Lynn Miller. Call up the Small Farmers Journal and tell them it needs to be republished! Otherwise, it can often can be found used online.



Apprenticeship/Internship Network Sites

ATTRA – National Sustainable Agriculture Information Service: http://attrainternships.ncat.org

Organic Volunteers – find onthe-job learning opportunities in sustainable agriculture: http://www.growfood.org

An international directory of jobs in "sustainable living": http://www.backdoorjobs.com/farming.html

Stewards of Irreplaceable Land – links Canadian farmers willing to take on and train apprentices with folks wanting to work and learn on an organic farm using sustainable practices: http://www.soilapprenticeships.org

World Wide Opportunities on Organic Farms (WWOOF) – become a member and access an extensive international list of organic farms that welcome volunteer help (anywhere from a few days to years) in exchange for room and board: http://www.wwoof.org

Educational and Training Opportunities in Sustainable Agriculture – a comprehensive list and description of university programs: http://www.nal.usda.gov/afsic/pubs/edtr/EDTR2008.shtml

Farming for Credit Directory

– lists hands-on and classroombased sustainable agriculture
education opportunities side by
side:

http://www.rodaleinstitute. org/ffc_directory

CRAFT Farmer Training Initiative – regional networks where apprentices from different farms get to visit surrounding farmers and meet other apprentices: http://www.organicgrowersschool.org/content/1874

Curriculum and Programs for Teaching Interns/ Teaching Oneself

Farm Internship Handbook: http://www.attra.org/intern_handbook/

UC Santa Cruz Ecological Horticulture Class Curriculum: http://casfs. ucsc.edu/education/ instruction/esa/index.html

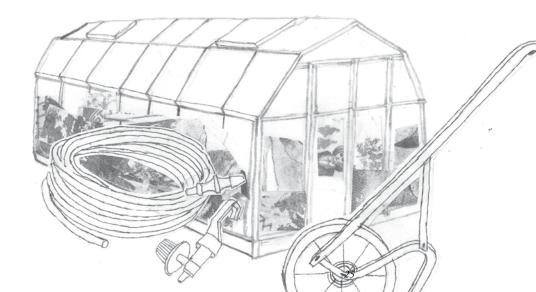
Beginning Farming 101 – an online course (\$200): http://beginningfarmers.cce.cornell.edu

Organic Transition Course (Rodale Institute) – free and online: http://www.tritrainingcenter.org/course/

Pittenger, Dennis R., ed. California Master Gardeners Handbook. University of California Agriculture & Natural Resources, 2002 – a great, straightforward textbook, though not organic.

"Many farmers—most farmers, and that means millions need some technical help in making the change to this more efficient, easier, and more productive type of farming, and they need also moral support and encouragement."

– HUGH HAMMOND BENNETT
"ADJUSTMENT OF AGRICULTURE TO ITS ENVIRONMENT," 1943



"If the earth is holy, then the things that grow out of the earth are also holy. They do not belong to man to do with them as he will. Dominion does not carry personal ownership. There are many generations of folk yet to come after us, who will have equal right with us to the products of the globe. It would seem that a divine obligation rests on every soul. Are we to make righteous use of the vast accumulation of knowledge of the planet? If so, we must have a new formulation. The partition of the earth among the millions who live on it is necessarily a question of morals; and a society that is founded on an unmoral partition and use cannot itself be righteous and whole."

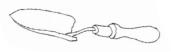
- L. H. BAILEY, THE HOLY EARTH



III. Access to Land

Unclench your fists; we are talking about land, not ownership. One of the biggest barriers to starting a farm is accessing an actual piece of land: over half the country's farmland is controlled by farmers over 55. What's more, 80% of farmland is owned by non-farming landowners. To add to matters, speculative forces (particularly associated with agro-fuels such as corn-based ethanol) push up the cost of agricultural land per acre, federally backed grants are still going out to build more factory hog farms, and credit rates are on the rise. These factors make it hard even for farm-born farmers to get started. So if you don't already have land in the family, you'll need to devote time and effort into figuring it out. Real estate values, tax rates, and subdivisions can incense even the mildest aspiring farmer, especially once you start driving around in rural and semi-rural areas and see all the land that goes unused. It's a very radicalizing process.

As a beginning farmer, it may seem near impossible to get your hands into soil you can call your own. But do not despair, the land is there – it's just a matter of the step-by-step progression towards getting tenured access to it. Charm, persistence, and determination are your best allies. Eventually, it may become necessary for us to work on reforming land use policies and setting up a tax structure that offers incentives to landowners to lease on favorable terms to producers of local food. (That is a good job for someone!)



"We don't want a bigger piece of the pie, we want a different pie."

- WINONA LADUKE

Don't assume that you have to purchase land before entering farming. Do assume that you need to know how to farm before buying one. One important strategy is to relocate to the region you want to settle in as a renter or leaser of land. Start small, learn the lessons early, and figure out your market position while your fixed capital costs are manageable. In How to Start Your Small Farm, Lynn Miller, editor of Small Farm Journal, cautions young and new farmers not to rush into acquiring land if that also means acquiring debt. While subsidized low-interest loans for beginning farmers from the USDA can be a blessing for business growth, debt - particularly in inexperienced hands - can be lethal. Economic interest rates can demand a return that, especially in a young business that is still funneling cash into implements, fencing, barn repair, and construction, cannot be paid within the production values of sustainable agriculture (or at the pace of production most suitable for human happiness). Just like chemical fertilizers and herbicides, there is a vicious treadmill effect when you start taking on too many loans.

At the outset, then, it's often best to apprentice, manage a farm, 'borrow' land, steward the land of some holiday home owners,

gently lease some pastures from an extensive land owner, take over a farm from a retiring farmer, run an 'edible landscaping' business in the city, rent a small rural farmhouse that is set on a few acres, dig up your parents' lawn and start a market garden (ask first), "beg, borrow or steal" if you have to, or farm on the side while still keeping a day job. Get confident with the skill set and save your pennies. *You Can Farm!* by Joel Salatin lays out the groundwork for business planning and business growth forecasting that will set you on the path to solid fiscal footing.

"Today, we are simply retracing our steps across the land in an effort to correct past mistakes in the interest of the future."

- HUGH HAMMOND BENNETT, SOIL CONSERVATION, 1939

Once you've been farming and marketing your produce and are ready for a bigger piece of land, broadcast your news! Tell everyone you meet that you are looking for land to rent, lease, or own. Don't beg or moan – just brightly mention (while selling glorious eggs) your love of the community and your hope to find land. Keep your eyes and ears open, and check classifieds in agricultural publications and regional sustainable agriculture bulletin boards. Call all the agencies. Show up at trainings. (Again, this is a condensed guide that is intended to get you thinking along these avenues of access, it is not comprehensive.) The point is: start somewhere, get going. If you don't have any cash, you will have to ninja yourself a solution particular to the place you choose and unique to the relationships you are able to form. We wish Uncle Sam were still giving away land to folks willing to plant orchards of cider apples, but it's quite unlikely, in the short term at least.

Manufacture Some Magic

Many are the ways that folks have managed to get access to land. It's a practical matter, so we're spelling it out for you here (This is the short list. There are many more and cooler examples of innovative land tenure, and if you'd like to make sure our next edition includes one that you are aware of, please add it to our wiki at foryoungfarmers.wikispaces.com):

- 1. Working for a non-profit organization as farm manager/educational coordinator.
- 2. Renting/leasing land from a land trust.
- 3. Renting/leasing land from wealthy (or not so wealthy) non-farming landowners who get an "agricultural tax assessment." Check with the extension service in your state to learn about agricultural taxes. Also check with the assessor in your town to learn what the 'real value' of that tax deduction is for your landlord so that you can adequately understand their financial incentive to work with you. In some places farmers are actually paid to hay the land for the tax break.
- 4. Renting a part of a working farm, sharing equipment.
- 5. Farming land owned by a school, restaurant, retreat center, artist-in-residency program or other institution.
- 6. Collaborative land purchase (siblings, friends, associations).

- 7. Farming for a private developer in a "planned development" (this is big in the South).
- 8. Starting with a small homestead in a rural town while earning money for eventual farm purchase in outskirts.
- 9. Lottery/inheritance from your family.
- 10. Cannabis cultivation on rented/squatted land to finance own parcel (NOT recommended).
- 11. Slowly taking over a farm operation from a retiring farmer.
- 12. Borrowing under utilized private land with a handshake.
- 13. Rooftop farming with corporate partners.
- 14. Renting urban land from the city (this is big in Missouri).
- 15. Farming on the site of an old bedding plant nursery/other compatible space.

A note on renting land from estate owners near cities:

There are model lease agreements available online from the New England Small Farm Institute and Land For Good. It's critical that you have a leak-proof lease agreement with your landlord. As a lessee with pregnant animals and day-old chickens being delivered tomorrow, you'll want to protect yourself from a landlord who likely has fancier lawyers and faster get-away cars, if and when the winds change.

Resources

Farm Link Program Directory

- state-run programs which facilitate the transition of land between generations of farmers and ranchers, and can provide a degree of mentorship, business planning and banking advice: farmtransition. org/netwpart.html

Incubator Farms – usually support new farmers by offering access to land, equipment, infrastructure, mentorships, and sometimes paid work until farmers feel confident that they have enough experience to get along on their own two feet and have the means to acquire their own land. Here's a great example: carolinafarmstewards. org/projects.shtml

Farm On – a program helping to preserve family farm businesses by matching beginning farmers who do not own land with retiring farmers who do not have heirs:

extension.iastate.edu/ bfc/programs.html

Tax Credits for Barn

Preservation – a great incentive to property owners who might otherwise destroy their glorious barns:

nps.gov/history/hps/tps/tax

Historic Barns: Working Assets for Sustainable Farms

 describes how older and historic barns can provide practical benefits for sustainable agriculture: preservationnation.org/ issues/rural-heritage/ additional-resources/Historic-

Barns-Sustainable-Farms.pdf

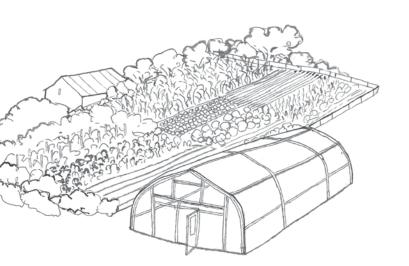
Farmland Information Center –

a clearinghouse for information about farmland protection and stewardship. Browseable by state: farmlandinfo.org

NCAT Guide – how to find and secure land to farm: attra.ncat.org/attra-pub/ PDF/finding.pdf "The government cannot buy 'everywhere.' The private landowner must enter the picture...The basic problem is to induce the private landowner to conserve on his own land, and no conceivable millions or billions for public land purchase can alter that fact. The real end of conservation is a universal symbiosis with land, economic and esthetic, public and private. To this school of thought, public ownership is a 'patch' but not a program."

– ALDO LEOPOLD
THE CONSERVATION ETHIC, 1933





"The good health of a farm depends on the farmer's mind. The good health of his mind has its dependence, and its proof, in physical work. The good farmer's mind and his body—his management and his labor—work together as intimately as his heart and his lungs. And the capital of a well-farmed farm by definition includes the farmer, mind and body both. Farmer and farm are one thing, an organism."

- WENDELL BERRY, THE GIFT OF GOOD LAND

Capitalization of Small
Diversified Operations

Business Planning & Accounting

All independent farmers need basic accounting and business planning skills to reach their farming goals. For your business to be truly sustainable, you must make your operation economically viable for yourself and any business partners or workers. Learn how to make nice spreadsheets and use quickbook programs. Pay your taxes, or, reinvest in your business and don't pay as many. If you aren't a great book-learner, there are farm-business planning courses that you can find online through Land Stewardship Project's Farm Beginnings Program. Bottom line: adequately assessing each of your farm enterprise for profitability and being willing to actively manage the business end of them is unavoidable if you want to stay afloat.

Resources

Aubrey, Sarah. Starting and Running Your Own Small Farm Business. Storey Publishing, 2008.

Butterfield, Jody, Sam Bingham, and Allan Savory. Holistic Management Handbook: Healthy Land, Healthy Profits. Island Press, 2006.

Davis, Poppy. Beginning
Farmer and Rancher Resources:
Basic Bookkeeping, Budgeting,
Tax Recordkeeping, Other Stuff.
2008:
beginingfarmerrancher.
wordpress.com

Holistic Management International. Improving Whole Farm Planning Through Better Decision-Making. 2001. Internal Revenue Service, U.S. Dept. of the Treasury. Small Business/Self-Employed Virtual Small Business Tax Workshop. irs.gov/businesses/small/article/0,,id=97726,00.html

Macher, Ron. Making Your Small Farm Profitable: Apply 25 Guiding Principles, Develop New Crops & New Markets, Maximize Net Profits per Acre. Storey Publishing, 1999.

Salatin, Joel. You Can Farm: The Entrepreneur's Guide to Start & Succeed in a Farming Enterprise. Polyface, 1998.

Sustainable Agriculture Network. Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses.

Minnesota Institute for Sustainable Agriculture, 2003: sare.org/publications/ business.htm

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Loans & Grants

Starting a farm is not a cheap endeavor; it requires capital for equipment, inputs, and land. You can slow your need for cash by limiting your inputs and developing new enterprises piecewise. A variety of loan and grant programs exist to help you start your business; many a young farmer spends the winter trawling the Internet for grants and production incentives. There are foundations, marketing groups, and government conservation bodies all with an interest to help you make your farm more humane, useful as habitat, or accessible to children. Don't forget! As a beginning farmer you'll qualify for a whole bunch of federally backed loans that were a major win in the last farm bill. But many of the sustainable agriculture research grants will come to you only after your farm is established, and you'll have to develop relationships with the scientists and researchers. Don't besitate to speak up about your operation.



There are also humane husbandry-, water quality-, and wildlife habitat-based grant programs offered by private and public groups. Go to conferences and do the research – sometimes \$5,000 of deer fencing is just 30 minutes of paperwork away.

Farm Service Agency Beginning Farmer Loan Program: fsa.usda.gov/ FSA/webapp?area=home &subject=fmlp&topic=bfl

The National Council of State Agricultural Finance Programs – provides an easy-to-navigate directory of state loan programs: stateagfinance.org

Farm Credit Services of America – Young and Beginning Program: fcsamerica.com/products/ YoungBeginningProgram. aspx

Local Producer Loan Program -

low-interest loans to small, local producers, sponsored by Whole Foods Market: wholefoodsmarket.com/ values/local-producerloan-program.php Freshman Farmer Grants Program, Peaceful Valley Farm Supply: freshmanfarmer.com

Community Land Trusts and Private Foundations: cltnetwork.org

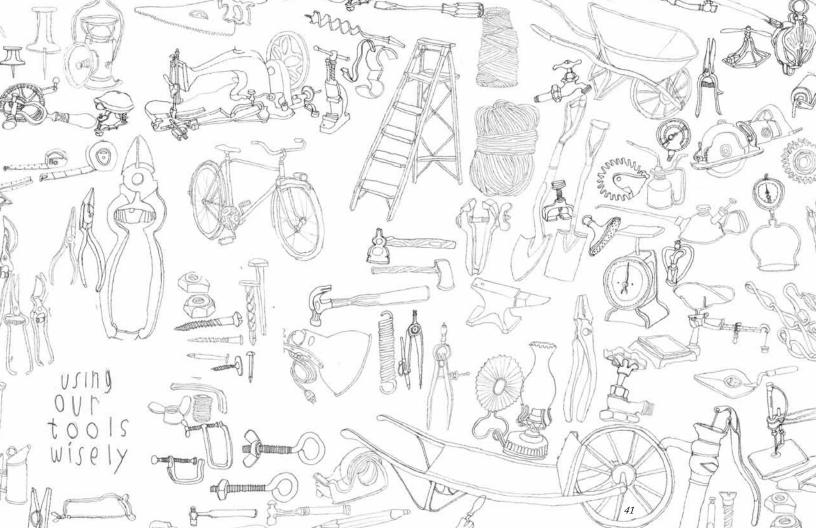
Rudolf Steiner Finance and other Social Finance Firms: rsfsocialfinance.org

Microlending: kiva.org

NSAIS' ATTRA web page for funding opportunities – a great one-stop shop for current grant opportunities: attra.ncat.org/funding

American Farmland Trust: aftresearch.org/grant





"Up to 6 billion microbial life-forms can live in one 5-gram amount of cured compost, about the size of a quarter. Life makes more life, and we have the opportunity to work together with this powerful force to expand our own vitality and that of this planet."

- JOHN JEAVONS,
HOW TO GROW MORE VEGETABLES!



We Greenhorns consider ourselves "fierce patriots of soil fertility." Soil is the foundation of our civilization, its health underlies our own health, and without it we wouldn't long survive. Hydroponics on the sides of skyscrapers aren't really that sexy from a soil-health perspective. Energy-dense crops and healthy livestock rely on the foundation of fertile soil, which it is our mandate to support. Ample nutrients and minerals, organic matter, microorganisms, sufficient moisture, and good pH are the basis of healthy soils that will ultimately feed you and your clientele.

A few resources on how to build hearty soil:

ATTRA NSAIS -

Soils & Compost: attra.ntcat.org/soils.html

Sir Albert Howard, Soil and Health

Crop Rotation
Planning Procedure:
neon.cornell.edu/
croprotation/eChapter5.pdf

Organic Farming Research Foundation Fertility Management Progress Reports: ofrf.org/funded/ fertility_mgmt.html

Soil & Water Conservation Society: swcs.org

Donahue, Roy L., Raymond W. Miller, and John C. Shickluna, *Soils: An Introduction to Soils and Plant Growth*, 5th ed. Prentice Hall, 1983.

Manure Application Planning Workbook: ag.ndsu.edu/pubs/ansci/ waste/ae1187w.htm

Hoffman, Evans, Jensen, Martin, &. Elliott, <u>Design and</u> <u>Operation of Farm Irrigation</u> <u>Systems</u>. ASAB, 2007.

Keesan, Larry, and Cindy Code. <u>The Complete</u> <u>Irrigation Workbook: Design,</u> <u>Installation, Maintenance</u> <u>and Water Management.</u> GIE Media, Inc., 1995.

Southorn, Neil, Farm Irrigation: Planning and Management, GIE Media, Inc., 1997.

Styles, Stuart W., and Charles M. Burt, <u>Drip and Micro Irrigation for Trees, Vines, and Row Crops,</u> Irrigation Training and Research Center, 1999.

Rodale Institute -

Organic Transition Course, soils module: tritrainingcenter.org/course

After observing the difference between homemade compost and the stuff made at huge commercial facilities, you might well be inspired to delve into your own practice with biodynamic preparations, slower composting times, and more careful selection of animal manures. Geek out! But remember that engaging in large-scale compost production can get you into trouble with water quality authorities, so do your homework and read up.



Stick Your Fingers in the Planet

You'll have to experiment with your local climate and microclimate, figure out your short- and long-term strategy for annuals and perennials, and suss out the market viability of your favorite crops. It's mostly a solo game, but it might also be helpful to contact your local or state extension office to determine what crops are best suited to your area. Crop diversification is one proven path to success for small farms. The USDA CSREES maintains a directory of Extension Offices at www.csrees.usda.gov/qlinks/partners/state_partners.html, but sadly there are quite a lot of horror stories about extension officers who give devastating advise, do not approve of farms that go on to win awards, and are biased against organic practices. Keep this in mind, and try to collaborate with other local farmers and figure out which officers can offer real support. Soil tests are cheap!

SARE, Diversifying Cropping Systems – provides a useful introductory publication: sare.org/publications/ diversify.htm

List of Alternative Crops for Small Farm Diversification: nal.usda.gov/afsic/pubs/ altlist.shtml#resources

Questions to ask about alternative crops: pnw-ag.wsu.edu/AgHorizons/ notes/sr3no1.html

Alternative Crop Suitability Maps: sws.uiuc.edu/data

sws.uiuc.edu/data/altcrops

Seeds

Directory of Organic Seed Suppliers: attra.ncat.org/attra-pub/ organic_seed

Seed Savers Exchange – a fantastic organization that connects seed savers around the country directly to each other via a yearly directory. You can buy seeds from other savers at a discounted rate and also find almost every seed for sale in the entire nation by varietal: seedsavers.org

Hudson Valley Seed Library – a regional-scale 'lending library' for seeds modeled after Seed Savers Exchange but with an emphasis on New York region-adapted heirloom seeds: seedlibrary.org

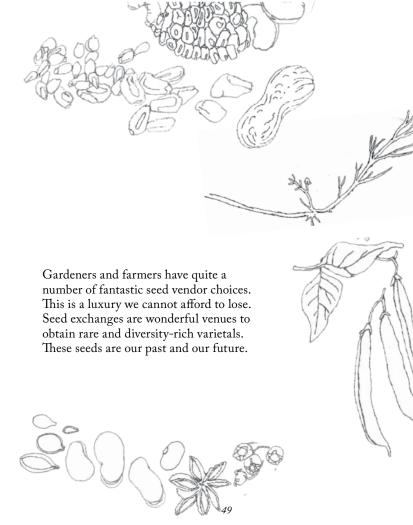
Fedco Seeds – seed champions from Maine with very competitive prices that go fast and keep everyone loyal: fedcoseeds.com High Mowing Organic Seeds
– a fast-growing organic seed
company that is part of the
Hardwick, VT cluster:
highmowingseeds.com

Baker Creek Heirloom Seeds – Another young farmer-owned company from the Midwest: rareseeds.com

Johnny's Selected Seeds – a source of tools and organic inputs for commercial growers: johnnyseeds.com

Southern Exposure Seed Exchange – focuses on seeds for the South: southernexposure.com

Deppe, Carol. Breed Your Own Vegetable Varieties: The Gardener's and Farmer's Guide to Plant Breeding and Seed Saving. Chelsea Green, 2000.



Sustainable Pest Management

Though grumpy neighbors might not agree, organic farming is possible! To manage insects, weeds, and disease, sustainable farming relies on cultural practices and management decisions that forgo chemicals and activities harmful to the environment. Biological and economic success is possible through thoughtful labor, input, and equipment decisions. In many ways, it's easier to learn organic practices from the start and to generate your planting plans with crop rotations, inter-croppings, and insect habitats in mind. But transitioning from conventional agriculture or resuscitating conventionally managed land back into organic status is also good work! In either case, you'll need to learn the underlying principles that will help you plan for success. Outwitting bugs, blight, and disease takes foresight and holistic long-term investments in soil fertility, sanitation, crop residue processing, and timing.

Altieri, Miguel. Manage Insects on Your Farm: A Guide to Ecological Strategies. Sustainable Agriculture Network, 2005.

Krasta, Thorsten. Plant Pathology Internet Guide Book: pk.uni-bonn.de/ ppigb/ppigb.htm

Walters, Charles. Weeds: Control without Poisons. Acres USA, 1999. Weinzierl, Rick, and Tess Hearn. Alternatives in Insect Management: Biological and Biorational Approaches. North Central Regional Extension Publication 401, Cooperative Extension Service.

SARE's A Whole-Farm Approach to Managing Pests: sare.org/publications/ farmpest/farmpest.pdf ATTRA – publications on sustainable pest management: attra.ncat.org/pest.html

Organic Farming Research Foundation – Weed Management Project Reports: ofrf.org/funded/ weed_mgmt.html Department of Crop and Soil Sciences, Cornell University – The Organic Weed Management Website: css.cornell.edu/weedeco/ WeedDatabase/index2.html

Rodale Institute – The Weeds Page, integrated weed management: rodaleinstitute.org/weeds



Equipment

Many farmers use tractors from the 1940's and you could be one of them. We've seen a whole bunch of creative retrofits of old pick up trucks into chicken tractors. Or you could go the 'walk behind' route with a smaller, newer, more manageable tool suited to the small/entry-level grower. Again, you'll want to organize yourself some training in equipment use, preferably on someone else's farm during a year-long apprenticeship.

Kubik, Rick. How to Use Implements on Your Small-Scale Farm. Motorbooks Workshop, 2005. Quick, Graeme R. *The* Compact Tractor Bible. Voyageur Press, 2006. NRCS seems fairly serious about preserving our basic natural resources, but then why don't they run tillage workshops for beginning farmers out of those nice offices they have in every county? It's hard to break bad tillage habits once they're established, so start us out right, Uncle Sam! Teach us soil conservation and tractoring at the same time.



Livestock

Getting good quality stock at the outset can be quite a hurdle, but often you can get a few head from an industry leader and start your own herd slowly, gently, and carefully. State fairs are good places to meet other small-scale producers, as are auctions, conferences, extension workshops, and slaughter-houses. Your vet/feed merchant will also know of folks nearby. Check to see if nearby breeders and breed associations have an Internet presence. Pastured poultry networks are particularly fertile these days. And, of course, there's always Craigslist.

Niche meat marketing guide, buyers guide from Extension: extension.iastate. edu/store/ItemDetail. aspx?ProductID=13056

ATTRA: attra.ncat.org/livestock.html

SARE: sare.org/ coreinfo/animals.htm

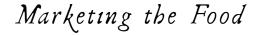
Books on Livestock From Storey Publishing comprehensive and accessible guidebooks: storey.com/subcategory_ listing.php?cat=Animal s&subcat=1 ivestock Breeds of Livestock,
Department of Animal
Science,
Oklahoma State University:
ansi.okstate.edu/breeds

American Livestock Breeds Conservancy: albc-usa.org

Privett Hatchery has wonderful wonderful chickens.



VI.





"The most frequently heard argument is that intensive chemical farming provides the only hope of feeding the expanding world population and has therefore to be accepted whether we like it or not. To me it seems probable that the exact opposite could prove to be the case, and that it is an alternative and largely organic agriculture that will be forced upon us whether we like it or not. This is because, as is becoming increasingly apparent, the days of the former are numbered. One reason is the enormous demands on the world's non-renewable resources of energy, made by our Western life-style in general, and modern farming techniques in particular. Another is that modern methods are putting strains on the biota which is causing it to collapse."

- LADY EVE BALFOUR, TOWARDS A SUSTAINABLE AGRICULTURE - THE LIVING SOIL. 1977 When you are working hard to opt out of a mainstream consumerist lifestyle, it may seem counter-intuitive to have to translate the fruits of your labor into an actual living through strategic marketing and organic certification. If you are passionate enough to have come so far as to produce honest, whole food, becoming certified organic (yes, an often costly procedure) can open up a much broader market. Community Supported Agriculture (CSA) and farmers markets create much more direct relationships between producer and consumer, but they are most time intensive. You'll get more dollars per pound of produce, but you'll also have to chat and schmooze and hustle your bustle to please the fancy chefs and fussy moms. But it takes different strokes for different folks. Figuring out what works for you will help you plan your future farm around your own preferences.



On Marketing

Organic Farmers Agency for Relationship Marketing (OFARM): ofarm.org

"Growing for Market" – a periodical out of Lawrence, KS with super practical advice for growers of specialty vegetables and flowers: growingformarket.com Center for Agroecology and Sustainable Food Systems (CASFS): casfs.ucsc.edu/ education/instruction/ tdm/contents.html

Midwest Organic and Sustainable Education Service (MOSES) – "Brokers, Buyers, Cooperatives, and Processors": mosesorganic.org/dir_search_ results.php?search=Broker s&sc=1&sd=TBL0000015



Certifications, Pricing, and CSA Resources

"How to Go Organic" – a collection of existing resources for anyone exploring how to transition to organic by the Organic Trade Association: howtogoorganic.com

Organic Transition Course – a certification module from the Rodale Institute: tritrainingcenter.org/course

The New Farm Guide – search, browse, and compare certifiers (also from Rodale): newfarm. rodaleinstitute.org/ocdbt

National Agricultural
Statistics Service – economics,
statistics, marketing information
systems, and agricultural prices
updated monthly by the USDA:
usda.mannlib.cornell.edu/
MannUsda/viewDocumentInfo.
do?documentID=1002

Rodale Institute's Organic Price Report – updated regularly: rodaleinstitute. org/Organic-Price-Report

CSA Resources for Farmers (USDA):
nal.usda.gov/afsic/pubs/
csa/csafarmer.shtml

LocalHarvest – get listed in this online local food guide: localharvest.org

USDA Farmers Market Directory: apps.ams.usda. gov/FarmersMarkets

Community = Relationships



"The community I desire is not grudging; it is exuberant, joyful, grounded in affection, pleasure, and mutual aid. Such a community arises not from duty or money but from the free interchange of people who share a place, share work and food, sorrows and hope. Taking part in the common life means dwelling in a web of relationships, the many threads tugging at you while also holding you upright."

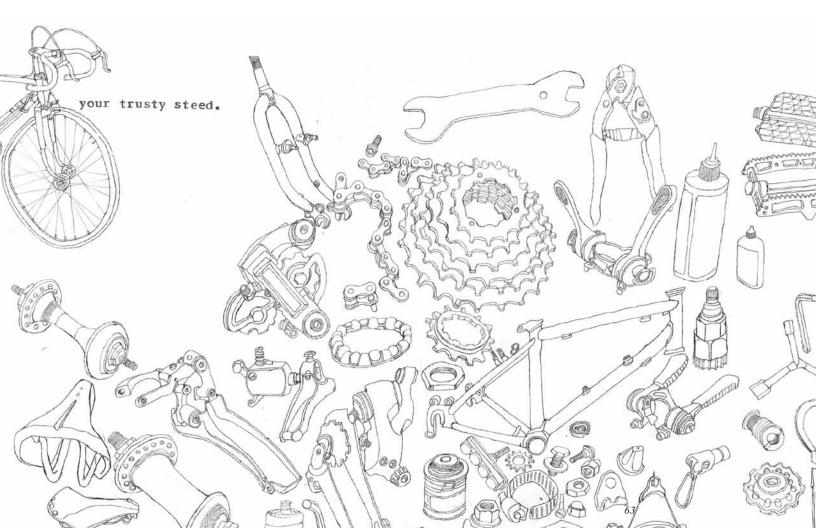
– SCOTT RUSSELL SANDERS,
"THE COMMON LIFE" IN WRITING FROM THE CENTER

Incorporating yourself into your community and being neighborly are vital to successful farming, especially if this is your first move out to a rural countryside. Your neighbors can help you find local resources, get you acquainted with the history of your land and weather conditions, or assist you in times of need if you are willing to do the same for them. You might need to rely on your neighbor to feed your animals while you are away, lend you their front-end loader, or help you rebuild your barn. Whether they share all, some, or none of your views, connecting with other farmers and ranchers is the key to finding camaraderie in an ever-rarer vocation and being accepted in a greater community.

Thanks mostly to the gutsy self-determination of those before us in sustainable agriculture, most regions of this country have some kind of sustainable ag organization, such as NOFA, MOSES, or TILTH. Piggybacking onto existing social structures is a great way to create more young farmer training opportunities and network socially and professionally. These groups are more than willing to generate conference programming for young and beginning farmers, and many young farmers end up working their 'off-farm job' as part-time staffers for these jewels of our community. Get involved and you will be welcomed.

Ways to get involved in your community:

Enter the county fair and volunteer time. Have your children join the local 4-H. Help out at events such as your fire department's barbecue or the local horse show. Be personable and remembered at the farm supply store. Patronize community businesses. Join the local food co-op and attend membership meetings. Be good: this is your home at least until the orchard starts bearing.



"I admire the bioregionalist idea of finding a place on the planet, on your street, in your city, in your region, and deciding that that place is one you will protect. Learn its natural history and its cultural history. Visit the place regularly. Watch it carefully. If its threatened, do something...There's plenty of room for maneuvering. Do not be too self-conscious to speak, from time to time, the words 'Mother Earth."

– JERRY MANDER, THE ABSENCE OF THE SACRED



VIII.

Urban Agriculture

Cities cover only 2% of the Earth's surface, but consume 75% of its resources. This is where the huge disconnect between people and their food begins. The average city dweller isn't likely to be able to tell you where their food came from beyond the shelves of the supermarket. But urbanites have no need to feel discouraged. Not only is it getting easier to seek out local food in cities, but you can also take matters into your own hands (get the best of both worlds!) and grow food yourself. Whether it's a victory garden on a small patch of community land, a roof garden, or windowbox plants, there are innovative ways to make urban agriculture surprisingly productive and satisfying.

Our sweet friend Annie runs a lovely rooftop farm in New York City (www.rooftopfarms.org). She has begun the all-important experimentation and documentation of which crops and soil mixtures and how much wind exposure work best. In roof farming we are opening up a whole new world of innovation, and we must immediately start sharing what we learn about efficient growing with our colleagues.

Ways to Get Involved in Urban Agriculture & Sustainability

Ecology Action – developers of *Grow Biointensive*Sustainable Mini-Farming, a small scale agricultural system that nurtures soil, produces high yields, conserves resources and can be used successfully by almost everyone: growbiointensive.org

Jeavons, John. How To Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine. Ten Speed Press, 2006.

Urban Permaculture
Guild – facilitates
artistic and ecologically
oriented place-making
and educational projects:
urbanpermacultureguild.org

The Food Project – amazing resources for starting up an urban farm and community programming: thefoodproject.org

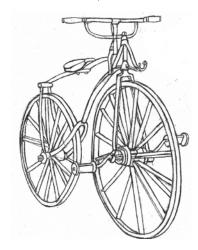
City Farmer's Urban
Agriculture Notes –
Canada's Office of Urban
Agriculture maintains this
large and excellent site at the
center of the burgeoning urban
farming movement:
cityfarmer.org

Build it Solar: The Renewable Energy Site for Do-It-Yourselfers – this site has over 500 projects from bubble-wrap window insulation to DIY windmills: builditsolar.com

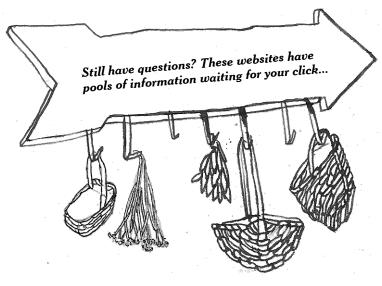
Experiments in
Sustainable Urban Living
- descriptions of easily
implemented and cheap
sustainable projects,
including a compostpowered solar water heater:
kailashecovillage.com/
experiments

"Your paradigm is so intrinsic to your mental process that you are hardly aware of its existence, until you try to communicate with someone with a different paradigm."

– DONELLA MEADOWS THE GLOBAL CITIZEN, 1991



Agriculture Information Clearinghouses



And, don't forget our wiki – a good place to find everything in this book and more:



foryoungfarmers.wikispaces.com

American Farmland Trust: farmland.org

ATTRA, National Sustainable Agriculture Information Service – free publications and an extensive informational website: attra.ncat.org

Center for Food Safety – working to curb the proliferation of harmful food production technologies and promote sustainable alternatives: truefoodnow.org

Cornell University Small Farms Program – information for new farmers, including help for immigrant farmers and opportunities for training: smallfarms.cornell.edu

Farm Aid – offers direct services of many kinds: farmaid.org, e-mail farmhelp@farmaid.org, or call 1-800-FARMAID.

The Land Institute & Wes Jackson – aims to develop an agricultural system with the

ecological stability of the prairie and a grain yield comparable to that from annual crops: landinstitute.org

Organic Ag Info – provides current, accurate, scientifically based or practically validated information about organic agriculture: organicaginfo.org

National Agricultural Library: nal.usda.gov

The New York Beginning Farmer Project – Support for beginning and diversifying farmers from Cornell Cooperative Extension Educators in partnership with the Cornell Small Farms Program: nybeginningfarmers.org

The Rodale Institute – expert resources within its New Farm content stream for crop and livestock production, direct marketing, local food systems, policy campaigns, and community-building collaborations: rodaleinstitute.org



The Big Picture: Research, Watchdogs, Activism

Agriculture has always been rigged by political and economic influences. As an independent farm operator it's important to keep up with the agricultural climate and how national and international policies and circumstances may affect you. Although recent years have seen some progress, we still have a long way to go towards fostering a hospitable climate for small-scale farmers.

It's vital that we not forget the inequality that persists in modern agriculture; agriculture in the U.S. would not exist without the labor of undocumented immigrants. Industrial agriculture has exploited its workers immeasurably, but small-scale farming allows us to be more accountable in our relationships with co-workers, peers, and consumers. Stay informed and active! As the face of food in your community you have a unique opportunity to communicate on these issues. Take that job seriously.

Research Groups, Watchdogs & Activism

ETC Group – supports socially responsible developments of technologies useful to the poor and marginalized and addresses international governance issues and corporate power: etcgroup.org

Food First Institute – looks at root causes of global hunger, poverty, ecological degradation, and develops solutions in partnership with movements for social change: foodfirst.org

Institute for Agriculture and Trade Policy – promotes rural communities and ecosystems around the world through research and education, science and technology, and advocacy: iatp.org

Coalition of Immokalee Workers – sign CIW's national petition to "end modern day slavery and sweatshop in the fields": ciw-online.org National Sustainable
Agriculture Coalition —
cultivating grassroots efforts to
engage in policy development
processes that result in food/
agricultural systems and rural
communities that are healthy,
environmentally sound,
profitable, humane, and just:
sustainableagriculture.net

Oakland Institute – aims to increase public participation and promote fair debate on critical social, economic and environmental issues in both national and international forums: oaklandinstitute.org

Alliance for Fair Food – promotes principles and practices in the corporate food industry that advance and ensure the human rights of farm workers at the bottom of corporate supply chains: allianceforfairfood.org

Glynwood Center – programs to train leaders, catalyze community change from the inside out, present innovative new ideas, and supply resources to those who strive to resolve the tension between development and conservation: glynwood.org

Student/Farmworker Alliance
– national network of students,
youth, and other community
members organizing with farm
workers to eliminate sweatshop
conditions and modern-day
slavery in the fields: sfalliance.org

La Via Campesina – the international peasant movement: viacampesina.org

National Family Farm Coalition

– the North American branch
of Via Campesina: nffc.net

Building Local Food Networks – toolkit for organizers: ecotrust.org/foodfarms/localfoodnetworks.html

WiserEarth – community directory and networking forum that maps and connects NGOs and individuals addressing the central issues of our day: wiserearth.org

Community Food Security Coalition – foodsecurity.org and its dynamic COMFOOD list serve: foodsecurity.org/list.html

FoodCorps – a new Americorps program training school gardeners and placing them in the public school system: food-corps.org

National Young Farmer Coalition – founded by a bunch of Greenhorns and beginning farmers, this is a group for young farmers run by young farmers working to support the initiatives of young farmers: youngfarmers.org

The National Grange – a national fraternity of husbandry: national grange.org

Staying Abreast of Current Affairs in Farming

Acres USA – North America's oldest, largest magazine covering commercial-scale organic and sustainable farming: acresusa.com/magazines/ magazine.htm

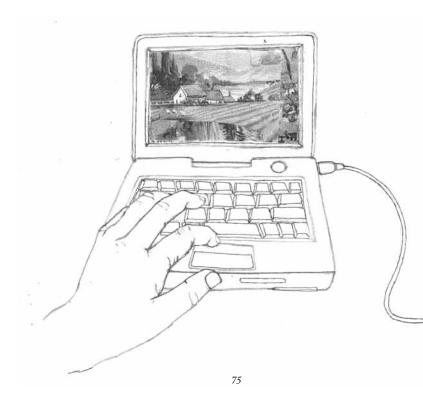
Small Farmer's Journal – packed to over-full with more information than you might find in three or four conventional magazines: smallfarmersjournal.com

Brownfield Network: Ag News for America – market and commodity reports, news on farm and food policy, the latest agricultural innovations, and more: brownfieldnetwork.com

Elite Farmer: Farming for Tomorrow...Today – links and articles on the web: elitefarmer.com

"The day is not far off when the economic problem will take the back seat where it belongs, and the arena of the heart and the head will be occupied or reoccupied, by our real problems—the problems of life and of human relations, of creation and behavior and religion."

> – JOHN MAYNARD KEYNES, FIRST ANNUAL REPORT OF THE ARTS COUNCIL 1946





Final words, from some of our farmer elders:

In it for the long haul? Slow down.

Don't breathe dust,

practice tractor safety,

consider long term effects,

save your back,

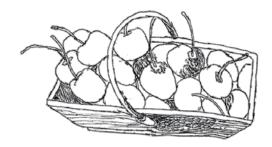
keep poise under pressure,

maintain graciousness,

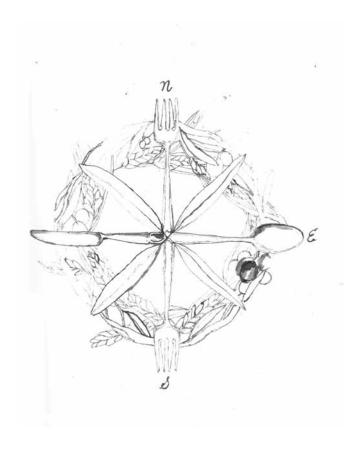
call your mother for a pep talk,

don't swear loudly from the front porch.





- 1 University of Georgia College of Agricultural and Environmental Sciences Cooperative Extension Service www.ces.uga.edu/Agriculture/agecon/pubs/agric50-90.htm
- 2 USDA 2007 Census Publications, *Volume 1, Complete Report*: www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_US/usv1.txt
- 3 USDA 2002 Census Publicaionts, *Volume 1*, *Complete Report*: www.agcensus.usda.gov/Publications/2002/Volume_1,_Chapter_1_US/CenV1US1.txt
- 4 United Nations. World Population Prospects, http://esa.un.org/unpp/ Also http://ipsnews.net/news.asp?idnews=37467



AMERICAN AGRICULTURE IS IN CRISIS.

A crisis of toxicity. A crisis of monoculture.

A crisis of control, of obesity, and of attrition.

The good news is that industrial agriculture is having a hard time now convincing young people to get involved in factory farming. Ever-increasing numbers of new farmers are rooting themselves in sustainable practices, and successfully. They are able to pay the bills and support their families, all the while remaining careful stewards of the land. Becoming a farmer is certainly not as clear-cut as becoming a doctor or a lawyer or even a carpenter, but that isn't stopping a growing and wonderfully dynamic surge of determined, new farmers from doing it anyway.

thegreenhorns.net thegreenhorns.wordpress.com youngfarmers.org serveyourcountryfood.net foryoungfarmers.wikispaces.com