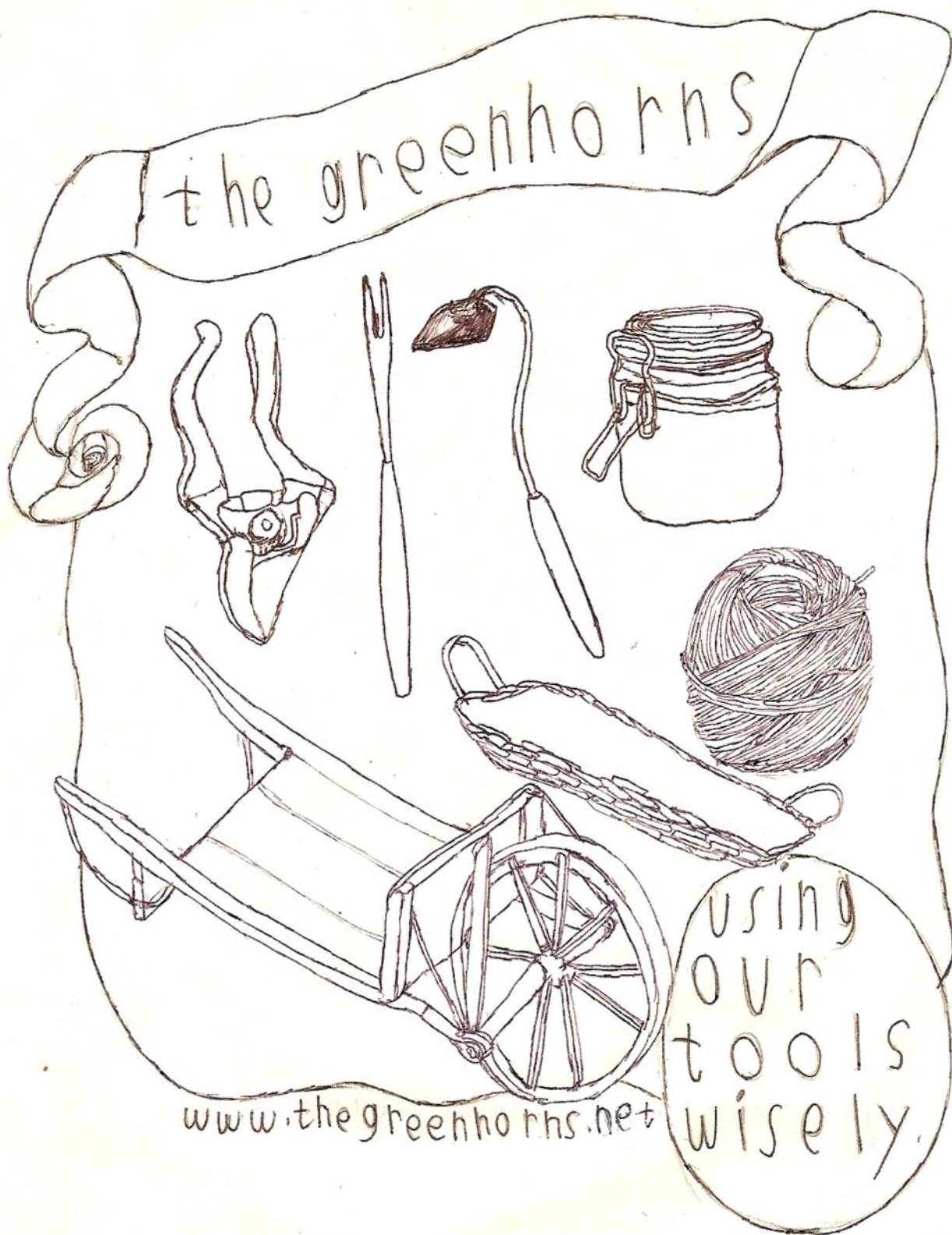


# *Guide for Beginning Farmers*



# Greenhorn:

## *a novice or new entrant into agriculture*

“The Greenhorns” is a grassroots non-profit organization based in the Hudson Valley of New York, working nationally to promote, recruit and support young farmers. We produce events, media and new media for and about the young farmer movement including: a blog, weekly radio show, wiki, guidebook, documentary film+ young farmer mixer events. Visit <http://www.thegreenhorns.net/home.html> and join our mailing list to hear of upcoming activities.

This guidebook is written by young farmers, for young farmers. It is meant to help you plan your professional trajectory into the field of sustainable agriculture. This is a condensed Third Edition of the Greenhorns’ guide, intended to briefly cover some of the major areas of institutional support for young farmers, some likely venues of learning and useful references. We hope that you come away from this condensed guide with the sense that you too can approach the many hurdles of a beginning farm career with style, aplomb, and improvisational zip. A longer guidebook is available at our website, and for the full experience we suggest you visit/contribute to our wiki (collaborative information sharing website). <http://www.thegreenhorns.net/resources/greeacres.pdf>. <http://foryoungfarmers.wikispaces.com>.

Why do we need young farmers? This book was written with the understanding that it is our generation’s collective task to reconfigure the foodsystem in the country: One farm at a time, one person at a time, one business at time. Actually we have to fix a lot of other systems too, but luckily food is a quite direct, quite accessible industry and

food is the foundation for all life, the place where our economy feeds from our ecology-- pretty sweet spot to start. Based on the analysis of our favorite food thinkers its quite clear that our food system is serving us badly because it is over-concentrated, over-industrialized, and strongly lobbying for subsidy dollars that keep mega-agri-hegemons feeding corn pap to our most vulnerable citizens. The kids get sick, the rivers get sick, and the rainforests get cut down. Bad news bears.

Yes, yes you say. I know its a big kettle of fish, a big consortium of big fish farmers raising soybeans in Brazil and trawling wild fish in precious hatcheries. But what can we do about it? Well, what we can do is start new, smaller, localized food businesses. We can serve our country food at the scale that is appropriate to our part of the country. We can innovate! We can collaborate! We can start CSAs, food processing kitchens, raise animals, slaughter them, butcher them, make jam, collect honey, age cheese, harvest fruit. We can start 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 manage it right our kids will grow up in a healthy place with rosy cheeks.

*This book was created by: Talia Khan-Kravis, Paula Manalo, Brooke Budner, Severine von Tscharner Fleming, and Anne Linder. Many thanks to Amy Francheshini for demanding that we revise it. This guidebook is in Creative Commons, feel free to print, xerox and distribute as you see fit.*

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# *I. START NOW!*

*Determination is invincible.*

*“A whole stream of events issues from the decision,  
raising in one’s favor all manner of unforeseen inci-  
dents 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, translated from Faust*

In our opinion 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 small and medium-scale farmers in America. Since the Farm Crisis of the 1980’s, we’ve suffered enormous losses in farmers, farmland, and rural economies. As urbanization and suburbanization overtook the countryside, the attrition of farmers caused by difficult market conditions has resulted in a crisis of demographics. As late as 1950, over 15% of Americans were farming. Today, it is a mere 1.6%. Of those farmers, in 1997 less than 3% were under 35 years of age. However, the recently released 2007 USDA Census of Agriculture shows that there is a surge of new entrants in American agriculture, and that those of us under the age of 35 now represent 6% of total farmers. This is an improvement, but there’s still a long way to go.

Entering 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 its winter. Whatever the limiting factor there are quite a few things you can do right now to get closer to farming:  
get strong: run up the stairs, bike to work, establish good posture, begin a stretching routine/practice  
get nimble: start a savings account, pay off all debt, learn to can / jam / preserve food, attend skillshares, workshops and practical trainings, network aggressively, practice thrift, scavenge and cache useful implements and well-built kitchen learn skills, learn carpentry, basic plumbing, machine repair, welding --if you have friends with these skills help them out.  
get community: repair any strained relations with land-owning relatives, show up! at community events, stay in touch  
get opportunity eyes: start composting NOW, observe the landscape, drainages, landuse, read natural history, 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.

*“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.*

## *II. APPRENTICESHIPS AND FARMER/AGRICULTURAL EDUCATION*

*“[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*

The first step is to figure out, generally, what you want to do, then you can configure your sequence of apprenticeships accordingly. What exactly do you want to farm? In many cases, your first farming experience will answer many of these questions: 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, specialty tool companies etc. Obviously, that is fine too. Apparently we also need a lot more young butchers and veterinarians.

Our surveys of the young farmers in our network have shown that the vast majority started their career with an apprenticeship or series of apprenticeships. 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 you'll have to test your mettle by doing

the lower rung tasks. There is gruntwork in farming and there is a hierarchy of tasks. Thankfully you 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 email. One big key to being a useful farm apprentice is clearly understanding the task at hand, try not to ask too many questions at first, just observe carefully, like a spy. You'll be surprised what you can discern when you open your eyes fiercely. The experienced farmer will value your observant nature and reward you with far deeper insight into his/her farm operation if they aren't always having to answer silly questions. 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 farmers is watching, keep a journal, and read every book on their shelf.

## *Apprenticeship/Internship Network Sites*

### **ATTRA**

National Sustainable Agriculture Information Service

<http://attrainternships.ncat.org>

### **Organic Volunteers**

find on-the-job learning opportunities in sustainable agriculture

<http://www.growfood.org>

### **Back Door Jobs**

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 couple days to years) in exchange for room and board

<http://www.woof.org>

### **Educational and Training Opportunities in Sustainable Agriculture**

a comprehensive list and description of Universities' programs

<http://www.nal.usda.gov/afsic/pubs/edtr/EDTR2008.shtml>

### **Farming for Credit Directory**

lists hands-on and classroom-based sustainable ag. education opportunities side by side

[http://www.rodaleinstitute.org/#c\\_directory](http://www.rodaleinstitute.org/#c_directory)

### **CRAFT**

Collaborative Regional Alliance for Farmer Training

regional networks where apprentices from different farms get to visit surrounding farmers + meet other apprentices.

<http://www.craftfarmapprentice.com/>

## Recommended Reading



## Curriculum and Programs for Teaching Interns/Teaching Oneself

*Exploring the Small Farm Dream,  
Is starting an agricultural business right for you?*

A decision-making workbook published by New England Small Farm Institute:  
[http://growingnewfarmers.org/main/for\\_service\\_providers/exploring\\_the\\_small\\_farm\\_dream/](http://growingnewfarmers.org/main/for_service_providers/exploring_the_small_farm_dream/)

*Becoming a Biodynamic Farmer or Gardener:  
A handbook for prospective trainees.*

Written and compiled by Malcom and Susan Gardener:  
<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! Often can be found used online.

*Farm Internship Handbook:*  
[http://www.attra.org/intern\\_handbook/](http://www.attra.org/intern_handbook/)

*UC Santa Cruz free curriculum for its Ecological Horticulture Class:*  
<http://casfs.ucsc.edu/education/instruction/esa/index.html>

*Beginning Farming 101- Cost for the online course is \$200:*  
<http://beginningfarmers.cce.cornell.edu/>

*The California Master Gardeners Handbook is a great textbook, not organic, but very straightforward:*  
Pittenger, Dennis R., ed., California Master Gardeners Handbook,  
Univ of California Agriculture & Natural Resources, 2002.

*Organic Transition Course (Rodale Institute free and online:*  
<http://www.tritrainingcenter.org/course/>

*Don't show up at the farm unprepared.  
Apprentice's Equipment Checklist:*

<input type="checkbox"/> sunhat	<input type="checkbox"/> work boots
<input type="checkbox"/> sunglasses	<input type="checkbox"/> rain boots
<input type="checkbox"/> pocket knife	<input type="checkbox"/> long underwear
<input type="checkbox"/> work gloves	<input type="checkbox"/> rain gear
<input type="checkbox"/> water vessel/thermos	<input type="checkbox"/> wool sweater
<input type="checkbox"/> flashlight	<input type="checkbox"/> thick work pants
<input type="checkbox"/> pruning shears	<input type="checkbox"/> tent
<input type="checkbox"/> sleeping bag	<input type="checkbox"/> chocolate/ hi-energy treats
<input type="checkbox"/> medical kit including disinfectant and cloth tape	And for adventuring:
	<input type="checkbox"/> bike
	<input type="checkbox"/> running shoes
	<input type="checkbox"/> bathing suit

*Take your work seriously, take care of your body, be brave.*



### III. ACCESS TO LAND



*“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.*



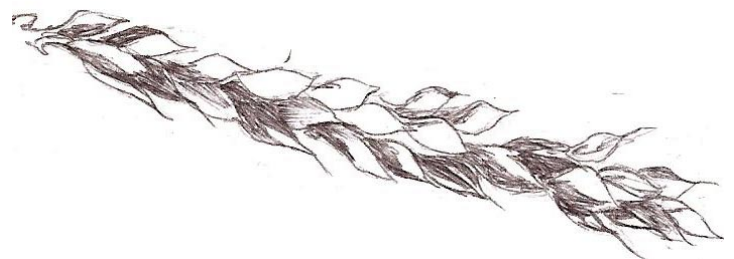
Unclench your fists, we are talking about land-- not ownership. One of the biggest barriers to starting a farm is accessing an actual piece of land: U.S. farmers over age 55 control more than half the farmland, Nationally 80% of farmland is owned by non-farming landowners. Its not fair and its getting worse: 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 harder even for farm-born farmers to get started, if you don't have land in the family-- its going to be something you'll have to spend real time figuring out. Real estate values, tax rates and subdivisions can incense even the mildest aspiring farmer, especially once you start driving around in rural and somewhat rural areas seeing all the land that is un-used! Its 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, do not get too sour the land is there--its just a matter of the 'step by step' progression towards getting tenured access to it. Charm, persistence, and determination are your best allies. Also, eventually, it may become necessary for us to work on reforming land use policies in this country and set up a tax structure that incents landowners to lease on favorable terms to producers of local food. ( That is a good job for someone !)

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, 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 USDA can be a blessing for business growth; debt, particularly in inexperienced hands, can be dangerous. The trouble with economic interest rates, is that they demand a return which, particularly in a young business that is still funneling cash into implements, fencing, barn repair/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 apprentices, manage a farm, 'borrow' land, to steward the land of some holiday home owners, to 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, "beg, borrow or steal" if you have to, or do it as a sideline while still keeping a day job. Get confident with the skillset and marketing 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.

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 ag. 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.*

*Its a practical matter, so we're spelling it out for you here.*

1. Working for non-profit organization as farm manager/ educational coordinator
2. Renting/ leasing land from a land trust
3. Renting/ leasing land from a wealthy (or not so wealthy) non-farming landowners who get a “agricultural tax accessment.” Check with the extension service in your state to learn about agricultural taxes. Also check with the accessor 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 taxbreak.
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 small homestead in 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. Slowing 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 rehab.

a note: this is a short list. There are many more, and cooler examples of innovative land tenure. If you'd like to make sure our next edition includes one that you are aware of please add it to our wiki!

**<http://foryoungfarmers.wikispaces.com>**

\*A note on renting land from estate owners near cities: There are model lease agreements available online from New England Small Farm Institute and Land For Good. It is critically important that you have a leak-proof lease agreement with your landlord. When the winds change, as a leasee with pregnant animals and day-old chickens being delivered tomorrow, you need to protect yourself from a landlord who likely has a lot nicer lawyers and faster get-away cars.

## *Resources*

### **Farm Link Program directory**

- state-run programs which facilitates the transition of land between generations of farmers and ranchers, and can provide a degree of mentorship, business planning and banking advice:

<http://www.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:

<http://www.carolinafarmstewards.org/projects.shtml>

### **Farm On Program**

a service to help preserve the family farm business by matching beginning farmers who do not own land with retiring farmers who do not have heirs to continue the family farm business:

<http://www.extension.iastate.edu/bfc/programs.html>

### **Tax Credits for Barn Preservation**

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

[www.nps.gov/history/hps/tps/tax/](http://www.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:

<http://www.preservationnation.org/issues/rural-heritage/resources-rural-heritage.html>

### **Farmland Information Center**

a clearinghouse for information about farmland protection and stewardship. You can browse for resources by state!:

<http://www.farmlandinfo.org>

## *IV. CAPITALIZATION OF SMALL DIVERSIFIED OPERATIONS*



*"The good health of a farm depends on the farmers' mind. The good health of his mind has its dependence, and its proof in physical work. The good farmers 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*

## *Business Planning & Accounting*

All independent farmers need basic accounting and business planning skills in reaching their farming goals. Making your operation economically viable for yourself and any business partners or workers makes your business truly sustainable. Learn how to use the nice spreadsheets and quickbook programs. Pay your taxes, or invest in your business and don't pay as much. Adequately accessing each of your farm enterprises for profitability, and being willing to actively manage the business end of this business is pretty much unavoidable.

### Resources

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

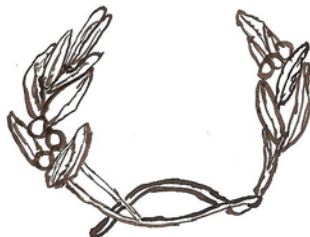
Butterfield, Jody, Sam Bingham, and Allan Savory,  
Holistic Management Handbook:  
Healthy Land, Healthy Profits.  
Island Press, 2006.

Davis, Poppy, Beginning Farmer and Rancher  
Resources:  
Basic Bookkeeping, Budgeting, Tax  
Recordkeeping, other stuff, 2008:  
<http://beginningfarmerrancher.wordpress.com/>

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Whole Farm  
Planning Through Better Decision-Making, 2001:  
[http://www.holisticmanagement.org/n7/Info\\_07/in4\\_whole\\_farm\\_planning\\_07.html](http://www.holisticmanagement.org/n7/Info_07/in4_whole_farm_planning_07.html).

Internal Revenue Service,  
U.S. Dept. of the Treasury,  
Small Business/Self-Employed Virtual Small  
Business Tax Workshop:  
<http://www.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, LLC, 1999.



# *Loans and Grants*

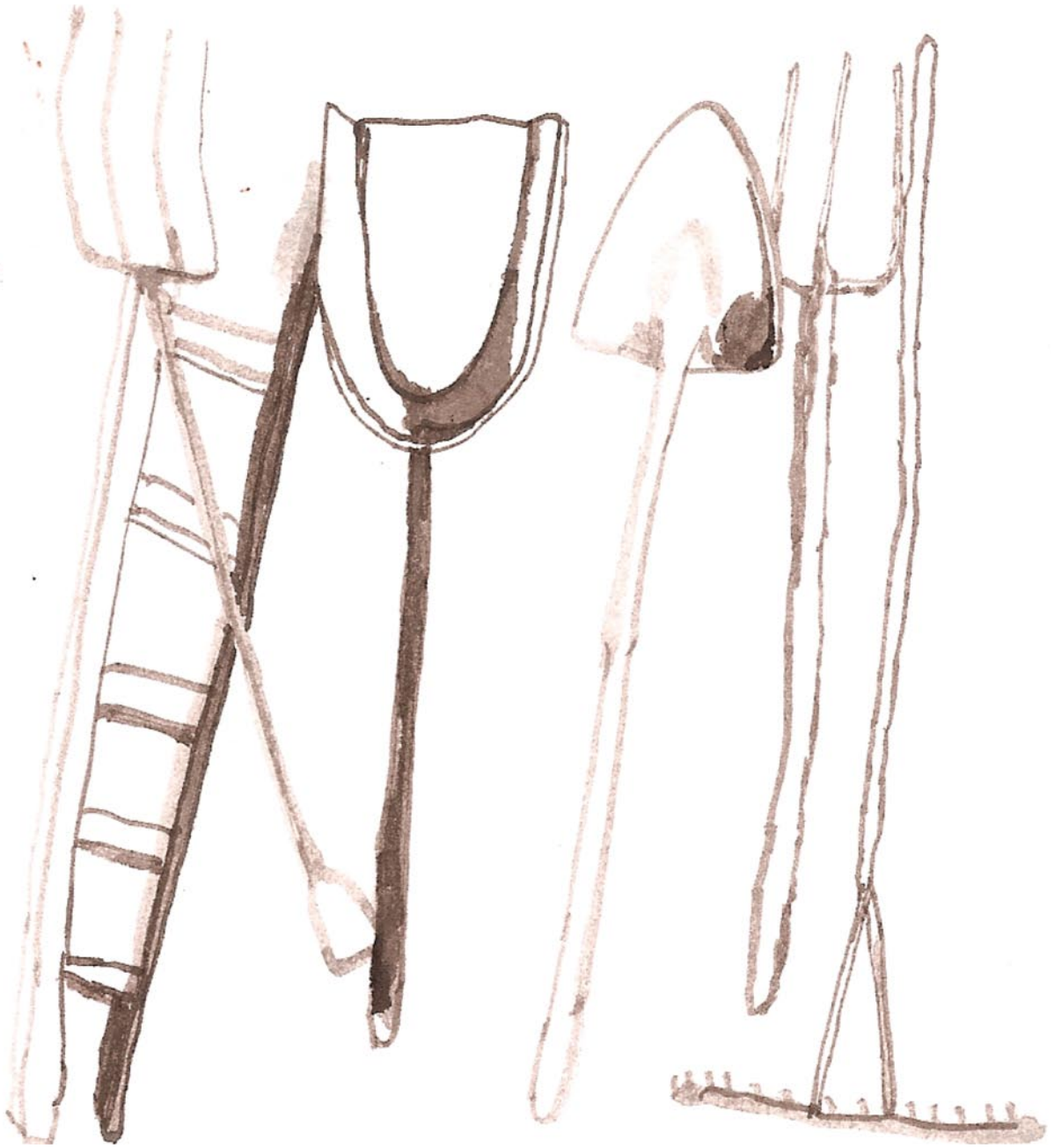
Starting a farm is not cheap; it requires capital for equipment, inputs, and land. There are a variety of loan and grant programs to help you start your enterprise. Here's a sampling:

- *Farm Service Agency - Beginning Farmer Loan Program:*  
<http://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:*  
<http://www.stateagfinance.org>
- *Farm Credit Services of America – Young and Beginning Program:* <http://www.fcsamerica.com/products/YoungBeginningProgram.aspx>
- *Local Producer Loan Program: low-interest loans to small, local producers, sponsored by Whole Foods Market:*  
<http://www.wholefoodsmarket.com/values/local-producer-loan-program.php>
- *Freshman Farmer Grants Program, Peaceful Valley Farm Supply:* <http://www.freshmanfarmer.com/>
- *Community Land Trusts and Private Foundations:*  
<http://www.cltnetwork.org/> and
- *Rudolf Steiner Finance and other Social Finance Firms:*  
<http://rsfsocialfinance.org/>
- *Microlending:*  
<http://www.kiva.org/>  
*A great one-stop-shop for current grant opportunities is at NSAIS' ATTRA web page for funding opportunities:*<http://attra.ncat.org/funding/>.
- *American Farmland Trust:*  
<http://www.aftresearch.org/grant/>

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



## *V. START WITH THE SOIL*



*“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!*

## *Stick your fingers in the planet*

You'll likely have to experiment with your local climate and microclimate, figure out your short and longterm strategy for annuals/perennial plantings, and suss out the market viability of your favorite crops. Its mostly going to be 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. The USDA CSREES maintains a directory of Extension Offices here: [http://www.csrees.usda.gov/qlinks/partners/state\\_partners.html](http://www.csrees.usda.gov/qlinks/partners/state_partners.html). Crop diversification is one proven path to success for small farms, and sadly there are quite a lot of horror stories about extension officers whose advise is devastating, who do not approve of farms that go on to win awards, and of a bias against organic practices. Keep this in mind, and try to corroborate with other local farmers and figure out which officer can offer real support. Soil tests are cheap

## *Seeds*

Gardeners and farmers have quite a number of fantastic seed vendor choices. This is a luxury we cannot afford to lose. Seed exchanges are wonderful venues to obtain rare and diversity-rich varieties. These seeds are our past and our future.

NCAT's Organic Seed Suppliers Search by Katherine L. Adam and Nancy Matheson:  
[http://attra.ncat.org/new\\_pubs/attra-pub/altseed\\_search](http://attra.ncat.org/new_pubs/attra-pub/altseed_search).

Seed Savers Exchange:  
<http://www.seedsavers.org>

This is 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 listings by variety of almost every seed for sale in the entire nation.

Hudson Valley Seed Library.

A regional-scale 'lending library' for seeds that models Seed Savers exchange but with an emphasis on NY region adapted heirloom seeds.

Fedco Seeds.

The champions from Maine, Fedco has very competitive prices, sells out early and keeps everyone loyal.

High Mowing Seeds.

A fast growing organic seed company that is part of the Hardwick, VT cluster. Protagonists!

- SARE provides a useful introductory publication, *Diversifying Cropping Systems*:  
<http://www.sare.org/publications/diversify.htm>
- List of Alternative Crops for Small Farm Diversification:  
<http://www.nal.usda.gov/afsic/pubs/altlist.shtml#resources>
- Questions to ask about alternative crops:  
<http://pnw-ag.wsu.edu/AgHorizons/notes/sr3no1.html>
- Alternative Crop Suitability Maps:  
<http://www.sws.uiuc.edu/data/altcrops/>

Baker Creek Seeds. Another 'young farmer' owned company from the Midwest.

Johnnys Select Seeds. The source for commercial growers, tools and organic inputs.

Southern Exposure Seed Exchange:  
<http://www.southernexposure.com/index.html> focused on seeds for the south.

## *Sustainable Pest Management*

In managing 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 are 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. Transitioning

from conventional agriculture, or recussitating conventionally managed land back into organic status is also good work! In either case, you'll want 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.

## *Books, Organizations and Websites*

- Krasta, Thorsten, Plant Pathology Internet Guide Book:  
<http://www.pk.uni-bonn.de/ppigb/ppigb.htm>
- Altieri, Miguel, Manage Insects on Your Farm: A Guide to Ecological Strategies, Sustainable Agriculture Network, 2005.
- SARE, A Whole-Farm Approach to Managing Pests:  
<http://www.sare.org/publications/farmpest/farmpest.pdf>
- ATTRA Publications on Sustainable Pest Management:  
<http://attra.ncat.org/pest.html>
- Organic Farming Research Foundation, Weed Management Project Reports: [http://ofrr.org/funded/weed\\_mgmt.html](http://ofrr.org/funded/weed_mgmt.html)
- Walters, Charles,  
Weeds: Control without Poisons. Acres U.S.A., 1999.
- Weinzierl, Rick, and Tess Hearn, Alternatives in Insect Management: Biological and Biorational Approaches, North Central Regional Extension Publication 401, Cooperative Extension Service, Agricultural Experiment Station, University of Illinois, 1991.  
<http://www.ag.uiuc.edu/%7Evista/abstracts/aaltinsec.html>
- Department of Crop and Soil Sciences, Cornell University.  
The Organic Weed Management Website:  
<http://www.css.cornell.edu/weedeco/WeedDatabase/index2.html>
- Rodale Institute, The weeds page: Integrated weed management:  
<http://www.new-farm.org/depts/weeds/index.shtml>; and Organic Transition Course, crops module,  
<http://www.tritrainingcenter.org/course/>

## *Soil Fertility and Irrigation*

We greenhorns often say that we are “fierce patriots of soil fertility.” And, indeed, the soil is the foundation of our civilization, its health underlies our own health, and without it we would not long survive. Hydroponics on the sides of sky-scrapers are not really that sexy from a soil-health perspective. Energy dense vegetable & fruit crops and healthy livestock rely on the foundation 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 soil which will ultimately feed you and your clientele. Below are a few resources on how to build hearty soil:

- ATTRA NSAIS. Soils & Compost:  
<http://attra.ncat.org/soils.html>
- Soil and Health, Sir Albert Howard
- Crop Rotation Planning Procedure:  
[www.neon.cornell.edu/croprotation/eChapter5.pdf](http://www.neon.cornell.edu/croprotation/eChapter5.pdf)
- Organic Farming Research Foundation Fertility Management Progress Reports:  
[http://ofrf.org/funded/fertility\\_mgmt.html](http://ofrf.org/funded/fertility_mgmt.html)
- Soil and Water Conservation Society:  
<http://www.swcs.org/index.cfm>
- 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:  
<http://www.ndsu.edu/pubs/ansci/waste/ae1187w>.

## *Livestock*

State Fairs are one good place to meet other small scale producers, also your feed merchant will know of folks nearby. You can meet other producers at auctions, conferences and slaughterhouses. Breeders and breed associations sometimes have internet presence, and there is always craigslist. Pastured poultry networks are particularly fertile these days. Getting good quality stock at the outset can be quite a hurdle, but often you can get a few head and start your own herd slowly.

htm

- Hoffman, Evans, Jensen, Martin, &. Elliott, Design and Operation of Farm Irrigation Systems. ASAB, 2007.
- Keesan, Larry, and Cindy Code. The Complete Irrigation Workbook: Design, Installation, Maintenance and Water Management. GIE Media, Inc., 1995.
- Southorn, Neil, Farm Irrigation: Planning and Management, GIE Media, Inc., 1997.
- Styles, Stuart W., and Charles M. Burt, Drip and Micro Irrigation for Trees, Vines, and Row Crops, Irrigation Training and Research Center, 1999.
- Rodale Institute: Organic Transition Course, soils module,  
<http://www.tritrainingcenter.org/course/>

- ATTRA: <http://attra.ncat.org/livestock.html>
- SARE: <http://www.sare.org/coreinfo/animals.htm>
- Books on Livestock From Storey Publishing- comprehensive and accessible guidebooks:  
[http://www.storey.com/subcategory\\_listing.php?cat=Animals&subcat=Livestock](http://www.storey.com/subcategory_listing.php?cat=Animals&subcat=Livestock)
- Breeds of Livestock, Department of Animal Science, Oklahoma State University:  
<http://www.ansi.okstate.edu/breeds/>
- American Livestock Breeds Conservancy  
<http://www.albc-usa.org/>
- Privett Hatchery has wonderful wonderful chickens. So many farmers end up using tractors from the 1940's. You could be one of them.
- Kubik, Rick, How to Use Implements on Your Small-Scale Farm. Motorbooks Workshop, 2005.
- Quick, Graeme R., The Compact Tractor Bible. Voyageur Press, 2006.

## *Equipment*

So many farmers end up using tractors from the 1940's. You could be one of them.

- Kubik, Rick, *How to Use Implements on Your Small-Scale Farm*. Motorbooks Workshop, 2005.
- Quick, Graeme R., *The Compact Tractor Bible*. Voyageur Press, 2006.
- Acres U.S.A.-  
North America's oldest, largest magazine covering commercial-scale organic and sustainable farming:  
<http://www.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:  
<http://www.smallfarmersjournal.com>
- Acres USA- organic
- New Farm, Rodale Online Journal
- ATTRA Weekly Harvest Newsletter (email) & ATTRA news:  
<http://attra.ncat.ort/newsletter/archives.html>
- Brownfield Network: Ag News for America-  
market and commodity reports, news on farm and food policy, the latest agricultural innovations, and more:  
<http://www.brownfieldnetwork.com/>
- Elite Farmer: Farming for Tomorrow...Today-  
links and articles on the web:  
<http://www.elitefarmer.com>
- More publications for specific interests in the full guide!:  
<http://www.thegreenhorns.net/resources/greeacres.pdf>.

## VI. MARKETING THE FOOD





When you are working so hard to opt out of a mainstream consumerist lifestyle, it may seem counter-intuitive to have to strategically translate the fruits of your labor into an actual living. But frankly, if you are passionate enough to have come this far and produced the food Becoming certified organic (an often costly procedure) can open up more stringent markets. Community Supported Agriculture (CSA) and farmer's markets are more direct marketing methods with the closest relationship between producer and consumer, but they are most time intensive. Here are some resources.

- Organic Farmers Agency for Relationship Marketing (OFARM): <http://www.ofarm.org>
- Center for Agroecology and Sustainable Food Systems (CASFS): <http://casfs.ucsc.edu/education/instruction/tdm/contents.html>
- Midwest Organic and Sustainable Education Service (MOSES)- Brokers, Buyers, Cooperatives and Processors: <http://www.mosesorganic.org/umord/brokerscoops.htm>
- Rodale Institute: Organic Transition Course, marketing module- <http://www.tritrainingcenter.org/course/>



## *Certifications, Pricing, and Community Supported Agriculture (CSA) Resources*

When you are working so hard to opt out of a mainstream consumerist lifestyle, it may seem counter-intuitive to have to strategically translate the fruits of your labor into an actual living. But frankly, if you are passionate enough to have come this far and produced the food Becoming certified organic (an often costly procedure) can open up more stringent markets. Community Supported Agriculture (CSA) and farmer's markets are more direct marketing methods with the closest relationship between producer and consumer, but they are most time intensive. Here are some resources.

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- Midwest Organic and Sustainable Education Service (MOSES)- Brokers, Buyers, Cooperatives and Processors: <http://www.mosesorganic.org/umord/brokerscoops.htm>
- Rodale Institute: Organic Transition Course, marketing module- <http://www.tritrainingcenter.org/course/>



## VII. COMMUNITY

*“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 important factors in successful farming - especially if you are moving to a rural community for the first time. 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 reach out to them, too. You might find you need to rely on your neighbor to feed your animals while you are gone, to 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 also key to finding camaraderie in an ever-rarer vocation, as well as being accepted in the greater community.

Ways to get involved in your community: enter the county fair and volunteer time there... Have your children join 4-H. (<http://www.4-h.org/>)... Help at events such as your fire department's barbeque or the local horse show... Be personable and remembered at the farm supply store... Patronize businesses in the community... Join the local food co-op and attend membership meetings... Be a good kid, you have to live there until the apples start bearing.



## VIII. URBAN AGRICULTURE



*"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.*

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 began. The average inner city teenager won't be able to tell you where their food came from beyond the shelves of a supermarket. But, there is no need to feel discouraged if you are an urbanite. Not only is it getting easier to

seek out local food, 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 in a small patch of land, a roof garden or potted plants on your windowsill, there are innovative ways to make urban agriculture surprisingly productive and satisfying. And have you heard, its super cool.

## *Ways to Get Involved with Urban Agriculture and Sustainability*

### **Ecology Action**

Developers of GROW BIOINTENSIVE®- Sustainable Mini-Farming, a smallscale agricultural system that nurtures soil, produces high yields, conserves resources and can be used successfully by almost everyone:

<http://www.growbiointensive.org/index.html>

### **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:

<http://www.urbanpermacultureguild.org/index.htm>

### **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:

<http://www.cityfarmer.org/>

### **The Food Project**

has amazing resources for starting up an urban farm and community programming that can go along with it:

<http://www.thefoodproject.org/>

### **Build it Solar:**

"The Renewable Energy Site for Do-It-Yourselfers" This site has over 500 projects from bubble wrap window insulation to constructing your own windmill:

<http://www.builditsolar.com>

### **Experiments in Sustainable Urban Living**

This offers descriptions of easily implemented and cheap sustainable projects (including a compost powered solar water heater):

<http://ersson.sustainabilitylane.com/>



# IX. AGRICULTURE INFORMATION CLEARINGHOUSES

*Still have questions? These websites have pools of information waiting for your click...*

American Farmland Trust:  
<http://www.farmland.org/default.asp>

**ATTRA**  
National Sustainable Agriculture Information Service- Free publications and an extensive informational website:  
<http://www.attra.ncat.org>

**Organic Ag Info**  
Provides current, accurate, scientifically-based or practically validated information about organic agriculture:  
<http://www.organicaginfo.org>

**Center for Food Safety**  
working to curb the proliferation of harmful food production technologies and promote sustainable alternatives:  
<http://www.centerforfoodsafety.org>

**Cornell University Small Farms Program**  
Information for New Farmers, including help for immigrant farmers and opportunities for training:  
[http://www.cfap.org/afs\\_temp2.cfm?topicID=29](http://www.cfap.org/afs_temp2.cfm?topicID=29)

**National Agricultural Library:**  
<http://www.nal.usda.gov/>

**The Land Institute and 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:  
<http://www.landinstitute.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:  
<http://www.rodaleinstitute.org>

**Farm Aid**  
Offers direct services of many kinds: <http://www.farmaid.org> or call 1-800-FARMAID (1-800-327-6243) or  
[e-mail Farmhelp@farmaid.org](mailto:e-mail_Farmhelp@farmaid.org)

Many more listed in the full Greenhorns Guide!:  
<http://www.thegreenhorns.net/resources/greeacres.pdf>.



## *X. BIG PICTURE*



Agriculture has been rigged by other political and economic influences; therefore, as an independent farm operator, it is 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.

Additionally, let's not forget the social side of agriculture. Agriculture in the U.S. would not exist without the labor of undocumented immigrants. Industrial agriculture has exploited its workers immeasurably. Small-scale agriculture makes us more accountable in our relationships with co-workers, peers, partners and consumers...but let's not forget about the inequality that persists in modern agriculture. Stay informed and active! As the face of food in your community, you have a unique opportunity to communicate on farm-related issues. Take that job seriously.



## Research Groups, Watchdogs and Activism

ETC Group-	supports socially responsible developments of technologies <a href="http://www.etcgroup.org">http://www.etcgroup.org</a>
Food First Institute-	useful to the poor and marginalized. addresses international governance issues and corporate power: looks at root causes of global hunger, poverty, and ecological degradation and develops solutions in partnership with movements for social change: <a href="http://www.foodfirst.org">http://www.foodfirst.org</a>
Institute for Agriculture and Trade Policy	promotes rural communities and ecosystems around the world through research and education, science and technology, and advocacy: <a href="http://www.iatp.org">http://www.iatp.org</a>
National Sustainable Agriculture Coalition	cultivating grass roots efforts to engage in policy development processes that result in food and agricultural systems and rural communities that are healthy, environmentally sound, profitable, humane and just: <a href="http://www.sustainableagriculture.net">http://www.sustainableagriculture.net</a>
Oakland Institute	aims to increase public participation and promote fair debate on critical social, economic and environmental issues in both national and international forums: <a href="http://www.oaklandinstitute.org">http://www.oaklandinstitute.org</a>
Alliance for Fair Food	promote 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: <a href="http://www.allianceforfairfood.org/">http://www.allianceforfairfood.org/</a>
Coalition of Immokalee Workers	Sign CIW's national petition to "end modern day slavery and sweatshop in the fields": <a href="http://www.ciw-online.org/">http://www.ciw-online.org/</a>
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: <a href="http://www.glyn-wood.org/programs.htm">http://www.glyn-wood.org/programs.htm</a>
Student/Farmworker Alliance	A national network of students, youth and other community members organizing with farm workers to eliminate sweatshop conditions and modern-day slavery in the fields: <a href="http://www.sfalliance.org/">http://www.sfalliance.org/</a>
La Via Campesina	The international peasant movement: <a href="http://viacampesina.org/main_en/index.php">http://viacampesina.org/main_en/index.php</a>
National Family Farm Coalition	The North American "branch" of Via Campesina: <a href="http://www.nffc.net/">http://www.nffc.net/</a>
Building Local Food Networks	Toolkit for organizers: <a href="http://www.ecotrust.org/foodfarms/localfoodnetworks.html">http://www.ecotrust.org/foodfarms/localfoodnetworks.html</a>
WiserEarth	A community directory and networking forum that maps and connects NGOs and individuals addressing the central issues of our day. Also a wiki.: <a href="http://www.wiserearth.org">http://www.wiserearth.org</a>
Community Food Security Coalition	<a href="http://www.foodsecurity.org/">http://www.foodsecurity.org/</a> and its dynamic COMFOOD listserve <a href="http://www.foodsecurity.org/list.html">http://www.foodsecurity.org/list.html</a>

*“American agriculture is in crisis.*

*A crisis of toxicity.*

*A crisis of monoculture. A crisis of control.*

*A crisis of obesity.*

*But also, a crisis of attrition.*

*Industrial agriculture is having a hard time convincing  
young people to get involved in factory farming.  
The good news is that ever-increasing numbers of young  
people are entering sustainable agriculture successfully.”*

This means that they are able to pay the bills,  
support their families, and remain 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 hasn’t stopped a growing,  
determined and wonderfully dynamic surge of new  
farmers from doing it anyway.

[www.thegreenhorns.net](http://www.thegreenhorns.net)

[www.foryoungfarmers.wikispaces.com](http://www.foryoungfarmers.wikispaces.com)

[www.serveyourcountryfood.net](http://www.serveyourcountryfood.net)