

# Small Farm Economic Viability

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# Introduction: Small Farm Economic Viability

## UNIT OVERVIEW

*This unit provides students with an overview of trends and issues that affect small farm economic viability in the food system.*

The first lecture reviews how small farms are defined and includes an overview of the ecological, economic, and social importance of small-scale farms, as well as the demographics of the current farmer population.

Lecture 2 examines recent economic trends and government policies impacting this sector. It concludes with a discussion of movements and strategies to support small farms, and sets the stage for subsequent units with an overview of marketing and income diversification strategies.

## MODES OF INSTRUCTION

> LECTURES (2 LECTURES, 1–1.5 HOURS TOTAL)

## LEARNING OBJECTIVES

### CONCEPTS

- Concepts and terminology related to small farm economic viability
- Importance of small-scale farms in diverse settings
- Recent trends in the small farm sector
- Marketing and income diversification strategies used by small-scale farmers
- Movements and strategies to support small farm economic viability
- Where to find additional information about topics included in this unit



# Lecture 1: Definition & Importance of Small-Scale Farms; Farmer Demographics

## A. Introduction to Small-Scale Farms

1. What is a farm?
  - a) The USDA definition of a “farm” has evolved over time:
    - i. 1850: A “farm” was defined as an operation that produced at least \$100 in agricultural products
    - ii. 1959: A “farm” was defined as an operation with less than 10 acres grossing \$250 or more, OR 10 acres or more grossing \$50 or more
    - iii. 1974 (currently used by USDA): Since 1974 a farm has been defined, for statistical purposes, as any place from which \$1,000 or more of agricultural goods (crops or livestock) were sold or normally would have been sold during the year under consideration
2. What is a small farm?
  - a) What may be considered a “small” farm or ranch varies with crop or livestock product, given both the scale needed to produce a given product and different market values. For example, a 50-acre vineyard or diversified vegetable farm (both of which produce relatively high-value crops) would likely gross higher sales per acre than a 50-acre wheat farm, meaning that a wheat farm would need to be larger in order to be economically viable. Thus, one might consider the 50-acre wheat farm as “small” while the 50-acre vineyard might be considered medium-sized.
  - b) Generally, small farms are considered to be operations that gross \$250,000 or less. Sometimes farms of this size are referred to as small and mid-sized farms or small and intermediate sized farms—with mid-sized or intermediate farms being considered those earning between \$100,000 and 250,000 (Kirschenmann et al, ND)
  - c) Small farms contain a variety of farm types and structures. They are also classified in different ways. Below are some classifications used by the USDA.
    - i. Rural-residence family farms (eXtension 2013):
      - Retirement farms. Small farms whose operators report they are retired.
      - Residential/lifestyle farms. Small farms whose operators report a major occupation other than farming.
    - ii. Intermediate family farms:
      - Farming-occupation farms. Family farms whose operators report farming as their major occupation.
      - Low-sales farms. Gross sales less than \$100,000.
      - High-sales farms. Gross sales between \$100,000 and \$249,999.”
3. Other farm definitions
  - a) Large and very large scale family farms. Farms operated in the majority by families, and grossing between \$250,000 and \$500,000, respectively.
  - b) Non-family farms. Any farm for which the majority of the farm business is not owned by individuals related by blood, marriage, or adoption.
  - c) To more specifically categorize farms in the United States, the USDA uses a system of farm descriptors that account for variables including gross sales; cash expenses; farm, household, and operator characteristics; household income, including off-farm income; acres operated; government payments; and conservation practices. These can be found on the USDA website.

See the Glossary for more definitions on different types of farms, as well as positions and people involved in farming

4. Governmental definitions related to agriculture and farms have important and far-reaching political implications for agricultural producers. Government definitions qualify farmers for participation incentives in the Farm Bill, as well as assistance from the numerous USDA agencies that provide technical support to farmers (such as Risk Management Agency's agricultural insurance programs, the Farm Service Agency's credit and loans, and other assistance and granting programs).

## **B. Importance of Small-Scale Farms in Diverse Settings**

Small farms, whether in rural or urban settings, bring many benefits to communities and the surrounding environment, as described below

1. Rural/urban edge farms
  - a) Biodiversity. While scale alone does not translate into any particular production method, many small farms use biologically diversified systems to help decrease economic risks (e.g., of crop failure for a single crop; diversifying their marketable products) and stabilize the farm ecosystems (e.g., by avoiding monocrops; using natural predators for pest control). Small farms that use these types of practices may increase biological diversity of landscapes by:
    - i. Growing diverse plant species (both crop and non-crop) on a single farm;
    - ii. Contributing to diversified crop species within a region;
    - iii. Fostering habitat diversity, increasing non-crop, animal- and insect diversity.
  - b) Farmland preservation. As farmland loss continues, land in financially successful small farms may be preserved from urban and/or industrial farming uses.
  - c) Rural economies and ways of life. Small farms can provide income and economic opportunity for rural residents, communities, and economies.
    - i. Some farmers engage in agriculture as a lifestyle choice, meaning that economic self-determination of rural communities may be enhanced by small farming situations.
    - ii. Small farms are also part of the cultural heritage in some rural and agricultural communities.
2. Urban farms and gardens
  - a) Benefits of urban farms and gardens include:
    - i. Increased food access or community food security. Farms and gardens in cities can increase access to fresh and healthy food for residents who may not otherwise have access to these, thereby enhancing community food security.
    - ii. Food and environmental education. By providing opportunities for hands-on and experiential learning, urban farms and gardens can help increase residents' awareness of the food system and environment.
    - iii. Job training. Some urban farms provide training in horticulture and other related activities, as well as basic job skills (e.g., responsibility; team work) that may be elusive for some groups.
    - iv. Cultural continuity for some immigrant groups. Some groups and individuals with agricultural backgrounds have immigrated to the U.S. as refugees, and urban farms and gardens can offer a sense of cultural continuity. (Though, it should also be noted that some groups have negative cultural associations with agriculture.)
    - v. Increased green spaces in urban settings. Urban farms and gardens can provide and preserve green spaces in urban settings otherwise dominated by the built environment.

- b) Drawbacks
  - i. Despite the benefits of urban agriculture, these can also be counterbalanced by challenges including site/soil contamination, zoning regulations, and land tenure, as well as potentially negative effects including public health risks from improper disposal of animal wastes and reinforcement of historical/social inequities such as access to land/resources

### C. Farmer Demographics

Each year, the USDA National Agriculture Statistics Service (NASS) provides estimates (based on the previous Census of Agriculture data)<sup>1</sup> about demographics in the agricultural sector, including age, gender, race/ethnicity, and incomes derived from agricultural production. Changes result from economic forces (see below), the impacts of agricultural and other national policies and programs, as well as changing interests in farming. For example, younger farm family members may not want to continue farming as the older ones retire, and beginning farmers coming from urban environments are often interested in smaller-scale and/or specialty farming.

1. U.S. farmers are aging—between 2007 and 2012 (U.S. Department of Agriculture, 2014b):
  - a) The average age of U.S. farm operators increased from 57.1 to 58.3
  - b) The older age groups (55 and up) all increased, and the younger age groups (54 and less) all decreased
2. Race/ethnicity and gender of U.S. farmers (U.S. Department of Agriculture, 2014a)
  - a) Of the 2.1 million farms counted in the 2012 Census of Agriculture, 1.83 million had a white male principal operator; White male operators accounted for 83% of all farmers. This percentage is down from 85% in 2007.
  - b) Females comprised 13.7% of the principal operators counted in 2012, down .2% from 13.9% in 2007
  - c) ► **TABLE 1.1** shows the demographic breakdown of principle farm operators in 2012

► **TABLE 1.1** | FARMER DEMOGRAPHICS

FARMER DEMOGRAPHICS*	NUMBER PRINCIPLE OPERATORS (2012)	PERCENT OF PRINCIPLE OPERATORS
ALL OPERATORS	2,109,363	100%
American Indian or Alaskan Native	37,857	1.8%
Asian	13,699	0.6%
Black or African American	33,372	1.6%
Spanish, Hispanic or Latino	67,014	3.2%
White	2,012,674	95.4%
Women operators	288,269	13.7%
Male operators	1,821,094	86.3%

\*Data calculated from 2012 Census of Agriculture (US Department of Agriculture, 2014a).

These and a host of additional statistical data on the U.S. agricultural economy and population are found on the USDA websites listed in the Resource section under Websites

1 The Census of Agriculture is the authoritative source of statistics about agriculture in the United States. It is conducted every five years by the United States Department of Agriculture.





# Lecture 2: Recent Trends, Economic Forces, & Policies Affecting Small Farm Viability; Strategies & Movements to Support Small Farms

## A. Recent Trends in Small Farm Economic Viability

1. Farmland conversion and demographic trends (for a history of agriculture in the US, and how it impacts small farms, please Unit 3.1, The Development of U.S. Agriculture in *Teaching Organic Farming & Gardening: Resources for Instructors*)

Each year, the USDA National Agriculture Statistics Service (NASS) provides estimates (based on the previous Census of Agriculture data) about the number of farms, farmland acreage, and a host of other information and statistics about the nation's agricultural landscape, population, and economy

- a) Farmland conversion, small farms, and industry consolidation
  - i. Farmland conversion has impacts on both farming communities and the environment; as open space and natural habitat are converted to built uses, land becomes more expensive, making it more difficult for existing and beginning farmers to access land
  - ii. Land in farms continues to decrease: Between 2011 and 2012, the USDA estimated that 3 million acres of farmland were converted to non-farm uses (e.g., urban development). Between 2002 and 2007, land in farms declined by 1.7 percent from 922,095,840 to 938,279,056 acres.
  - iii. Small farms (i.e., those grossing under \$250,000) represent 91 percent of farms in the United States (Hoppe et al., 2010)
  - iv. The number of small farms decreased by 1 percent between 2007 and 2012 (US Department of Agriculture, 2014a)
  - v. The consolidation of farms and agricultural land has been a trend for some time in the U.S. See the resource section under "Farmland Conversion, Small Farms, and Industry Consolidation" for graphics depicting this consolidation, data sources regarding land consolidation, and other references on the topic.
- b) Farmer income
  - i. In general, the majority of farm households obtained most of their household income off-farm. In 2011, off-farm income comprised 83% of households income (US Department of Agriculture ERS, 2013).
  - ii. In 2011, average farm income for new farmers was \$1,902 (and \$18,119 for established farmers; U.S. Department of Agriculture ERS, 2013)
  - iii. Small family farms, whose primary source of income is off-farm employment, represent 60 percent of all small farmers. Gross cash farm income (GCFI) for these farmers is less than \$10,000 per year (Hoppe et al., 2010).
  - iv. Among small family farmers,\* those who engage in direct marketing (e.g., farmers markets, community supported agriculture) may be able to bring in high value for their products, relative to products sold through conventional market chains
  - v. Intermediate/small commercial farms,\* whose primary source of income is derived from gross cash farm income (GCFI), are often referred to as "agriculture of the middle"

\*See Unit 3.4, Sustainable Agriculture and Sustainable Food Systems in *Teaching Organic Farming & Gardening: Resources for Instructors*, for additional information; available online at [casfs.ucsc.edu/about/publications](http://casfs.ucsc.edu/about/publications)

- vi. Intermediate/small commercial farmers often fall between the scale of the small non-commercial farms that engage in direct marketing (as above) and larger scale farms that engage in conventional wholesale distribution and marketing chains. Due to this, and the fact that these farms (by classification) do not rely primarily on off-farm income, they may be at greatest risk in terms of economic viability.
- vii. Initiatives to support “agriculture of the middle” are growing throughout the United States, and include university-based and non-profit groups
- viii. For more information on small farm incomes and “ag of the middle” see the Resources section under “Farmer Income”

## B. Economic Forces and Policies Impacting Small Farm Economic Viability

Broad economic forces impacting the U.S. agricultural sector have specific effects on the economic viability of small farms and “socially disadvantaged” farmers (see Glossary). Likewise, policies governing U.S. agriculture and immigration may favor large over small farms.

### 1. Economic Forces (see Glossary for definition of terms)

- a) Market conditions create an economic environment in which farmers must constantly adapt by finding new market niches or increasing the scale of production to remain economically viable
- b) Non-valuation of non-economic goods: Traditional economic models either ignore costs and benefits such as environmental and social goods (e.g., clean water or local jobs for community members), or classify them as externalities. This gives the impression that small farms are always less economically efficient than larger farms, even as they bring the benefits listed above. The valuation of “ecosystems services” is a way of attempting to quantify the benefits provided by the environment. Some innovative farm programs attempt to compensate farmers for providing ecosystems services in addition to food.
- c) Consumers are accustomed to cheap food and may not recognize, or be willing to pay for qualitative differences in agricultural products, including both social and environmental externalized costs of production
- d) Larger, well-capitalized farms adopting high technology production practices, along with vertically integrated agricultural firms, are able to capture the consumer market. They have lower per-unit costs of production and marketing costs, as well as the ability to provide consumers with convenience and consistency at a price below what is economically feasible for small-scale producers.
- e) Small farms are less able to compete in conventional wholesale markets, due to constraints on liquid cash flow, as well as time constraints
- f) Many consumers struggle to meet their basic needs, so paying extra for qualitative differences in products, or simply to support the small farm sector, is not an option  
Note that some innovative new programs have allowed low-income consumers to use state-provided nutrition assistance funds at farmers markets and sometimes even for CSA boxes. In some areas city agencies and/or non-profit organizations match the public assistance dollars so people can buy two dollars worth of farmers market produce with one dollar of benefits.

### 2. Policies and government agency practices

- a) **The Farm Bill** is the federal legislation that sets priorities and funding for agriculture and related environmental and emergency food programs in the United States. The Farm Bill is revised and then enacted by Congress every five to seven years.
  - i. The Farm Bill legislates and allocates funding in the following areas (called “titles”): Commodity, conservation, trade, nutrition, agricultural credit, rural development, agricultural research, forestry, energy, horticulture and specialty crops, crop insurance, livestock, and miscellaneous (a catch-all which includes programs for specific groups mentioned above such as socially disadvantaged farmers)

- ii. Under the “nutrition” title, the Farm Bill also authorizes funding for the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps), Special Supplemental Nutrition Program for Women, Infants, and Children, (WIC), Farmers Market Nutrition Programs (FNMP), other emergency food and community food security granting programs. These national programs, along with foreign nutrition aid, traditionally receive the bulk of the budgetary allocations in the Farm Bill.
  - iii. To learn more about the Farm Bill, see the Resources section under “Farm Bill.” Note that numerous advocacy organizations provide information on the Farm Bill. Educators are advised to review these carefully, as they may portray a specific stance on this highly controversial piece of legislation.
- b) USDA grants and consumer assistance programs
- i. Depending on available funding (which is voted by legislative bodies every five to seven years for the Farm Bill, as well as annually for select programs), **competitive grant programs** make funds available for research, education, and new enterprise development for specific groups of farmers.
  - ii. Again contingent on federal and/or state funding, programs such as **Farmers’ Market Nutrition Programs** (including those for seniors and Women, Infants, and Children – WIC) provide small amounts of additional food assistance to recipients to be able to purchase food at farmers’ markets
  - iii. Recipients of the federal **Supplemental Nutrition Assistance Program (SNAP)** may also use these funds at participating farmers’ markets and CSAs, and increasing number of these are also able to accept these funds through **Electronic Benefits Transfer (EBT)** cards
- c) USDA discrimination against specific groups of farmers
- i. Since the late 1990s there have been numerous class action lawsuits filed against the USDA on behalf of African American and Black farmers, Native American, female, and Latino farmers. These suits have claimed that USDA agencies (particularly the Farm Service Agency) discriminated against specific groups of farmers based on their race or gender in granting agricultural loans and access to related agency programs:
  - ii. Pigford lawsuit
    - In 1997 a class action lawsuit (Pigford v. Glickman) was filed on behalf of African American farmers claiming that the United States Department of Agriculture (particularly the Farm Service Agency) had discriminated against African American farmers in its granting of agricultural loans. (The allegations pertained to the period between 1981 and 1996, though advocacy organizations also claim that USDA agencies have a history of race-based discrimination.)
    - The case was settled in 1999, but due to the process through which individual claimants (i.e., farmers who met the criteria for payment) were to file claims, a large number of farmers did not meet the filing deadlines set in 1999 and 2000 and thus did not receive payment
    - Provisions were made in the 2008 Farm Bill for eligible claimants who did not meet the 1999/2000 deadline to proceed with the claims process. This is known as Pigford II.
  - iii. Several other lawsuits were filed on behalf of Native American, Hispanic, and women farmers. Some were settled in favor of the claimants (Keepseagle) and some were not (Love lawsuit). However, they both provided a process through which individual farmers could submit claims. For more information on these and other lawsuits see the resources section under “USDA Discrimination Lawsuits”.

d) Government and non-government initiatives responding to discrimination

The cases cited above notwithstanding, a number of government agencies and non-profit organizations provide technical assistance, outreach, education, and/or advocacy for specific groups of socially disadvantaged farmers in the United States. See the Resources section for a list of these organizations.

e) Immigration and Farm Labor policy

i. Immigration policy significantly impacts the agricultural sector because of the large percentage of farmworkers who are foreign-born

- A recent report from the USDA Economic Research Service (based on data from the National Agricultural Workers Survey) found that over 40 percent of all hired farm workers were foreign-born, with 37.3 percent originating from Mexico. Of Mexican immigrant hired farm workers, 90 percent were non-citizens. (Kandel 2008). For more information about farmworker issues, please see the Resources section.

ii. Currently, agricultural employers are able to bring in temporary “non immigrant foreign workers” under H-2A visas, although the program remains controversial and changes are being debated in Congress as of this writing

- H-2A visas currently allow employers to hire temporary foreign-born workers for up to one year with possible extensions for up to three years. To hire these workers, employers must demonstrate that they lack a sufficient and timely supply of locally available qualified U.S. workers, and that using foreign workers would not adversely affect wages and working conditions of comparably employed U.S. workers (Kandel, 2008).

iii. Changes in immigration policy could impact both small and large farms by restricting the number of immigrating workers available for hire; requiring increased wages paid to farmworkers; and/or increasing the number of farmworkers who immigrate to the U.S. illegally

iv. Many small-scale farmers, similar to farms of larger scale, often rely on temporary or seasonal farm workers as a way to remain economically viable

v. State level labor policy also has impacts on the small-scale farms. For instance, apprenticeships have often been a method for small-scale growers to have seasonal labor and help train the next generation of farmers. However, in some states, such as California, there are strict laws defining what constitutes an apprentice. Apprenticeship arrangements in place on some small-scale farms may not meet the law’s requirements (see Unit 8.0, Farm Employees and Alternative Models for Interns and Apprentices for more information).

vi. A number of small farm advocacy groups have recently created social justice certification standards for farms following specifically defined fair labor, pricing, and business practices. For more information see the Agricultural Justice Project website (in Resource section).

vii. For more information on the impacts of immigration policy on the agricultural sector see the Resources section under “Immigration and Farm Labor Policy”

### C. Strategies and Movements to Support Small Farms

Given the structure of the U.S. agricultural economy, and the challenges posed by this system to small, family farms, groups ranging from Cooperative Extension programs to grassroots coalitions have developed strategies to help support small farms. These include a diversity of marketing strategies, policy advocacy, land preservation, education, and social movement organizing.

1. Marketing and income diversification strategies

a) Niche markets

- i. One way that small farmers have been able to realize economic returns in the face of increasing control of the market by larger farms and firms is by providing products that larger farms cannot or do not provide. Examples are specialty products (e.g., value-added, early-season crops), services (such as U-pick operations), or certain production methods (e.g., certified organic, free-range animal products).
  - ii. Some niche markets may eventually cease to be viable economic options for small-scale producers, such as when increased demand for specialty products reaches an economic threshold, making it profitable for larger-scale producers (e.g., the development and concentration of the wholesale organic food industry). Niche markets become subject to the same economic trends that lead to the control of the market by large firms and a decline in the economic viability of small-scale producers.
- b) Direct marketing
 

Direct marketing is one way for small farmers to capture a larger share of the price for their products, as it reduces the number of sellers in the supply chain. Popular direct marketing strategies covered in this manual include Community Supported Agriculture (Unit 3.0), farmers' markets and roadside stands (Unit 4.1.), and direct sales to restaurants (Unit 4.2). Unit 4.3 highlights other types of direct and intermediate marketing options, such as selling to institutions and food hubs, faith-based options, eCommerce strategies, and agritourism.
- c) Diversification of on-farm enterprises/activities
  - i. Rather than relying on one or a few crops or types of livestock to provide sole income, small farms may choose to diversify their production activities
    - **Enterprise diversification** provides income at more points throughout the year, rather than relying on one harvest (or one type of livestock) to provide all income
    - **Product diversification** reduces whole farm risk. Diverse cropping strategies reduce likelihood of disease or pest outbreaks and help to assure some marketable product. This is especially important when crop insurance is not available.
    - **Value-added products**, including processing, repackaging, or otherwise creating "special" or "unique" products are a way to add value that has the potential to increase profits. Examples are jam/preserves, dried fruits, cheeses, floral wreaths, etc. (But be aware that the tax law is very different for most of these activities and you may need to include substantial additional bookkeeping and accounting fees to your budget in order to become a "food manufacturer" as well as a farmer.)
    - **Services** may also provide diversified incomes on the farm. Examples are agricultural tourism and U-pick operations (see Unit 4.3).
- d) Diversification of income
  - i. Most small and beginning farms rely on off-farm income to complement farm/product income and in some cases to provide benefits such as health insurance. Increasingly even families operating larger farms rely on some off-farm income.

## 2. Policy strategies

As noted above, the federal Farm Bill governs agricultural policy nation-wide, and state departments of agriculture have additional jurisdiction over farms in each state. To this end, farm policy advocacy groups attempt to influence legislative decisions impacting the agricultural sector.

- a) **Farm association advocacy.** Large-scale agricultural associations (e.g., the American Farm Bureau Federation, the National Farmers Union, and various crop-specific organizations) exert significant influence with regard to agricultural policymaking. There are also farmer coalitions that advocate for policies that are more favorable for smaller-scale and/or “minority” owned farms. These include the National Sustainable Agriculture Coalition, the National Family Farm Coalition, and the Federation of Southern Cooperatives, and the Rural Coalition.
  - b) **Consumer/non-farmer advocacy.** Coupled with social movements (see below), consumer/non-farmer advocacy groups have paid increasing attention to policies affecting agriculture and the food system in recent years. Examples include Farm Bill advocacy (often referred to by advocacy groups as the “farm and food bill”) and initiatives to label genetically engineered/genetically-modified foods in numerous states.
3. Land preservation and transition strategies
- a) **Land trusts and agricultural easements** help preserve land from development in rural and urban spaces, in some cases keeping land accessible and more affordable for small-scale farmers
  - b) **Farm transition and “farmlink” organizations** offer programs to help beginning or immigrant farmers gain access to farmland and mentorship. Programs exist throughout the United States and internationally. An index can be found at <http://www.farmtransition.org/>.
4. Education strategies
- a) **Consumer education** efforts have grown since the 1970s. These have emphasized the importance of non-farmer support for small-scale and family farmers in maintaining an economically viable small farm economy. Examples include Buy Fresh, Buy Local campaigns and marketing locally grown foods at retail outlets and in restaurants.
  - b) **Agricultural education programs** have been created to help small-scale farmers hone economic skills needed to operate financially viable operations in rural and urban areas. Some of these programs are based in universities or are part of Cooperative Extension, while others are run by non-profit organizations. Examples include the UC Small Farm Program; Cornell University’s Small Farms Program; CASFS Farm Apprenticeship in Ecological Horticulture at UC Santa Cruz; Farm School NYC; and Growing Power in Milwaukee and Chicago.
  - c) **Immigrant farm education and assistance programs** have been created specifically to help new immigrants (many of whom have agricultural backgrounds) establish commercial farming operations in the U.S. context. Examples include Agriculture and Land-Based Training Association (ALBA), the New Farmer Development Project, and the National Immigrant Farming Initiative.
5. Agriculture and Food System Social Movements
- Social and political movements focused on agricultural and food systems have coalesced since the late 20th Century. Many of these attend to issues impacting small farm economic viability.\*\*
- a) The **mainstream alternative agriculture movement** grew in the 1960s and 1970s out of concern for the environment
    - i. During this time, some urban residents moved out of the city and began farming in the “back to the land” movement
    - ii. At points, the alternative agriculture movement intersected with farm labor movement (especially that led by Cesar Chavez, Dolores Huerta, and United Farm Workers)

- iii. Since the 1980s, the alternative agriculture movement (and outgrowths, including the organic, sustainable agriculture, and local foods movements) has tended to focus more on environmental aspects and support for small farmers (e.g., farm owners), and less on social and labor issues
- b) New food movements began to arise in the 1990s, focusing on a number of broad issues including community food security, food justice/food sovereignty, and renewed interest (among non-farmers) in farmworker rights
- c) There is an increasing tendency for food movement groups to collaborate on food system reform, rather than focusing on singular issues or constituencies

\*\*See Unit 3.4, Sustainable Agriculture and Sustainable Food Systems in *Teaching Organic Farming & Gardening: Resources for Instructors*, for additional information; available online at [casfs.ucsc.edu/about/publications](http://casfs.ucsc.edu/about/publications)

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## ADDITIONAL RESOURCES

### FARMLAND CONVERSION, SMALL FARMS, AND INDUSTRY CONSOLIDATION

Marshall, Andrew, and Jan Perez. 2015. Unit 3.1, The Development of U.S. Agriculture: Lecture 1, Agriculture and the Food System, and Lecture 2. Capital, Politics, and Overproduction in Agriculture and the Food System. In *Teaching Organic Farming & Gardening: Resources for Instructors*. Santa Cruz, CA: Center for Agroecology & Sustainable Food Systems.

*These two lectures explain the process of consolidation on agriculture in the U.S. Available online at [casfs.ucsc.edu/about/publications](http://casfs.ucsc.edu/about/publications).*

The California Department of Conservation [conservation.ca.gov/dlrp/FMMP/Pages/index.aspx](http://conservation.ca.gov/dlrp/FMMP/Pages/index.aspx).

*Maintains data on farmland conversion in California. The most recent information (from 2010 as of this writing).*

Consolidation Info Graphics – by Phil Howard  
[www.msu.edu/~howardp/infographics.html](http://www.msu.edu/~howardp/infographics.html)

USDA National Agricultural Statistics Service (NASS)

[www.nass.usda.gov](http://www.nass.usda.gov)

*The NASS tracks the acreage used for agriculture each year. These data are searchable by specific land uses (e.g., cropland, pasture, woodland); as well as certain production practices (e.g., organic; irrigated). This information is available at [quickstats.nass.usda.gov](http://quickstats.nass.usda.gov). The NASS website also includes a geospatial database, CropScape, which offers advanced interactive visualization and geospatial queries detailing land use, including specific crops. This information is available at: [nassgeodata.gmu.edu/CropScape/](http://nassgeodata.gmu.edu/CropScape/)*

The USDA Natural Resources Conservation Service

[www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/)

*Maintain records of current and past data on national land use trends.*

#### **FARMER INCOME**

Agriculture of the Middle

[www.agofthemiddle.org](http://www.agofthemiddle.org)

Cornell Cooperative Extension Small Farms Program

[smallfarms.cornell.edu](http://smallfarms.cornell.edu)

UC Small Farm Program

[sfp.ucdavis.edu](http://sfp.ucdavis.edu)

#### **FARM BILL**

Farm Bill Primer

[farmbillprimer.org/](http://farmbillprimer.org/)

National Sustainable Agriculture Coalition

[sustainableagriculture.net](http://sustainableagriculture.net)

United States Department of Agriculture

[www.usda.gov/farmbill](http://www.usda.gov/farmbill)

USDA Economic Research Service

[www.ers.usda.gov/farm-bill-resources.aspx#UplJvi0hhpc](http://www.ers.usda.gov/farm-bill-resources.aspx#UplJvi0hhpc)

#### **USDA DISCRIMINATION LAWSUITS**

*For more information on the Pigford case see:*

The Federation of Southern Cooperatives website

[www.federationsoutherncoop.com/](http://www.federationsoutherncoop.com/)

The USDA summary of this case

[www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs141p2\\_015583.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs141p2_015583.pdf)

*For more information on the Keepseagle case (lawsuit on behalf of Native American farmers) see:*

The USDA summary of this case

[www.usda.gov/wps/portal/usda/usdahome?contentid=2011/07/0321.xml](http://www.usda.gov/wps/portal/usda/usdahome?contentid=2011/07/0321.xml)

*For more information on the women and Hispanic farmers cases see:*

Justice for Hispanic Farmers and Ranchers

[hispanicfarmerjustice.com/](http://hispanicfarmerjustice.com/)

National Agriculture Law Center

[nationalaglawcenter.org/center-outreach/hwfrpc/](http://nationalaglawcenter.org/center-outreach/hwfrpc/)

#### **GOVERNMENT AND NON-GOVERNMENT INITIATIVES RESPONDING TO DISCRIMINATION**

Black Farmers and Agriculturalists Association

[www.bfaa-us.org/](http://www.bfaa-us.org/)

Federation of Southern Cooperatives

[www.federationsoutherncoop.com/](http://www.federationsoutherncoop.com/)

Rural Coalition

[www.ruralco.org/](http://www.ruralco.org/)

United Farm Workers

[www.ufw.org/](http://www.ufw.org/)

USDA Beginning Farmer & Rancher Program

[www.outreach.usda.gov/smallbeginning/](http://www.outreach.usda.gov/smallbeginning/)

USDA Council for Native American Farming and Ranching

[www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=otr-council-native-american-farming-ranching.html](http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=otr-council-native-american-farming-ranching.html)

USDA Farm Service Agency Women Outreach Program

[www.fsa.usda.gov/FSA/webapp?area=home&subject=oued&topic=ops-wn](http://www.fsa.usda.gov/FSA/webapp?area=home&subject=oued&topic=ops-wn)

USDA Socially Disadvantaged Farmers and Ranchers Program

[www.outreach.usda.gov/sdfr/](http://www.outreach.usda.gov/sdfr/)

Women's Food and Agriculture Network

[wfan.org/](http://wfan.org/)

#### IMMIGRATION AND FARM LABOR POLICY

Agricultural Justice Project

[agriculturaljusticeproject.org](http://agriculturaljusticeproject.org)

Farmworker issues – see Unit 3.2, Lecture 1: Social Issues in US Agriculture—Labor in *Teaching Organic Farming and Gardening, Resources for Instructors*, available online at [casfs.ucsc.edu/about/publications](http://casfs.ucsc.edu/about/publications).

Zahniser, Steven, Thomas Hertz, Maureen T. Rimmer, and Peter B. Dixon. 2012. *The Potential Impact of Changes in Immigration Policy on U.S. Agriculture and the Market for Hired Farm Labor: A Simulation Analysis*. Economic Research Report No. (ERR-135). [www.ers.usda.gov/publications/err-economic-research-report/err135.aspx#.UjzG04YQZSA](http://www.ers.usda.gov/publications/err-economic-research-report/err135.aspx#.UjzG04YQZSA)

#### GENERAL BOOKS AND REPORTS

Danbom, D. B. 1979. *The Resisted Revolution: Urban American and the Industrialization of Agriculture, 1900-1930*. Ames, IA: The Iowa State University Press.

*This book analyzes the development of U.S. agriculture in the early 20th century. It particularly focuses on government-led initiatives to expand industrial practices to rural America in order to make the agricultural sector of the U.S. economy more efficient and economically productive. Danbom examines the reaction to these efforts among small-scale, family farmers, and finds that initial resistance to the industrialization of agriculture in the United States was eventually overcome, leading to increased mechanization, use of chemical inputs, increasing size of farms, and subsequent effects for small-scale, family farmers.*

Friedland, William. H., Amy Barton, and Rober J. Thomas. 1981. *Manufacturing Green Gold: Capital, Labor, and Technology in the Lettuce Industry*. Cambridge: Cambridge University Press.

*This monograph provides an analysis of mechanized lettuce harvesting as it came to the fore in the 1970s, examining the conditions*

*necessary for it to take place and its potential impacts on the farmers, farmworkers, and the economy. Written at a transformative period in U.S. agriculture, the work provides a critical analysis of the impacts of increased industrialization, and offers theoretical insights that can be applied in both rural/agrarian as well as industrial sociology.*

Goldschmidt, Walter. 1947. *As You Sow*, 1st Edition. New York: Harcourt, Brace and Co.

*This classic study of the social consequences of farming structures finds that large-scale industrial agriculture is associated with negative community outcomes, while smaller-scale agriculture continues to feed into more robust and prosperous communities. It presents three case studies of agricultural towns in Central California: one host to industrial scale, non-family farming; the second, a rural community in which agriculture is undergoing industrialization; and the third, a rural community of comparable makeup with small-to moderate sized farms. The Goldschmidt study was the first to examine these relationships as U.S. agriculture underwent industrialization following World War II.*

Guthman, Julie. 2014. *Agrarian Dreams: The Paradox of Organic Farming in California*, 2nd Edition. Berkeley: University of California Press.

*This book traces the evolution of organic farming in California, explaining that, despite its image, small, family farming was never the dominant form of agriculture in the state: Agriculture in California has, at its roots, large-scale, non-farmer owned operations. Guthman argues that the popular image of organic agriculture as an independently-owned alternative to corporate farming is a misconception, and that, as an industry, organic agriculture follows the same model as other large scale farming operations. The new version builds on the 2004 edition by examining the federal organic program and includes a discussion of how the certification arena has continued to grow and change since its implementation, as well as an up-to-date guide to the structure of the organic farming sector.*

Horne, Savi and Lorette Picciano No Date. *A Seat at the Table: Diversity and the 2008 Farm Bill: A Report on the Farm and Food Policy Diversity*

Initiative. Washington, D.C.: Farm & Food Policy Diversity Initiative.

*Written for the Obama-Biden transition project, this report addresses the USDA's history of discrimination against socially disadvantaged farmers and farmers of color, and outlines the ways in which the 2008 Farm Bill addresses these inequities. It argues that the class-action lawsuits brought against the USDA on behalf of women farmers and farmers of color did not produce structural changes in the USDA, but that the 2008 Farm Bill addresses these issues through land preservation and protection programs, credit and grants, and outreach focusing on socially disadvantages farmers and ranchers.*

Tourte, Laura, and B. A. Faber. 2011. *Small Farm Handbook, 2nd Edition* (p. 188). Oakland, CA: University of California (System), Division of Agriculture and Natural Resources.

*This book is designed for both farmers and agricultural professionals, and reviews topics such as the essentials for successful farming, enterprise selection, farm and financial management, marketing and product sales, labor management, post harvest handling, etc.*

U.S. Department of Agriculture. 1998. *A Time to Act: A Report of the USDA National Commission on Small Farms*. (National Commission on Small Farms.). USDA.

*Formed to examine the status of small farms in the United States and determine a course of action for the USDA, the National Commission on Small Farms produced this report, which calls for immediate action to preserve small-scale, family farming in the face increased concentration in farm ownership, and consequent loss of small farms. It proposes eight policy goals for the protection and promotion of small farms, analyzes the public value of small farming, and lays out guiding principles for federal farm policy.*

Walker, Richard 2004. *The Conquest of Bread: 150 Years of Agribusiness in California*. New York: The New Press.

*This book provides a systematic overview of agribusiness in California, the dominant state in both production and revenue for farming*

*and food processing. The book examines labor, growers, land, technology, and capital as they relate to the agriculture industry. Walker includes not only economic forces, but also the sociological and political forces at work in the growth and development of industrial agriculture in his analysis.*

Wise, Timothy A. 2011. *Still Waiting for the Farm Boom: Family Farmers Worse Off Despite High Prices*. Global Development and Environment Institute, Tufts University. Policy Brief 11-01, March 2011.

## **WEB-BASED RESOURCES**

### **GOVERNMENT RESOURCES**

USDA Census of Agriculture  
[www.agcensus.usda.gov/](http://www.agcensus.usda.gov/)

USDA Economic Research Service (ERS)  
[www.ers.usda.gov/](http://www.ers.usda.gov/)

USDA Family and Small Farms (with links to state-specific programs)  
<http://www.nifa.usda.gov/familysmallfarms.cfm>

USDA Farm Service Agency (with information about Beginning Farmers and Ranchers Loans; Farm Service Agency Minority and Women Farmers Loans)  
[www.fsa.usda.gov](http://www.fsa.usda.gov)

USDA Know Your Farmer, Know Your Food  
[www.usda.gov/wps/portal/usda/usdahome?navid=KYF\\_RESOURCES/](http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF_RESOURCES/)

USDA National Agricultural Statistics Service (NASS)  
[www.nass.usda.gov/](http://www.nass.usda.gov/)

USDA National Institute of Food and Agriculture (NIFA) Family and Small Farms (with links to small farm Extension programs, nationally)  
[www.nifa.usda.gov/familysmallfarms.cfm](http://www.nifa.usda.gov/familysmallfarms.cfm)

USDA Socially Disadvantaged Farmer and Rancher Program  
[www.outreach.usda.gov/sdfr/](http://www.outreach.usda.gov/sdfr/)

### **SMALL-SCALE & SUSTAINABLE FARMING RESOURCES**

Cornell Small Farms Program (NY State)  
[smallfarms.cornell.edu](http://smallfarms.cornell.edu)

Ecological Farming Association  
[www.eco-farm.org](http://www.eco-farm.org)

Leopold Center for Sustainable Agriculture  
[www.leopold.iastate.edu/](http://www.leopold.iastate.edu/)

University of California Small Farm Program  
[www.sfp.ucdavis.edu](http://www.sfp.ucdavis.edu)

University of California Agricultural Sustainability  
Institute  
[www.asi.ucdavis.edu](http://www.asi.ucdavis.edu)

University of California, Davis Center for Regional  
Change  
[regionalchange.ucdavis.edu](http://regionalchange.ucdavis.edu)

***POLICY RESOURCES***

California Rural Legal Assistance, Inc.  
[www.crla.org](http://www.crla.org)

Farm Bill Primer  
[farmbillprimer.org/](http://farmbillprimer.org/)

U.S. Citizen and Immigration Services  
[www.uscis.gov](http://www.uscis.gov)

U.S. House Committee on Agriculture  
[agriculture.house.gov/farmbill](http://agriculture.house.gov/farmbill)

U.S. Senate Committee on Agriculture, Nutrition,  
and Forestry  
[www.ag.senate.gov/issues/farm-bill](http://www.ag.senate.gov/issues/farm-bill)

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# Glossary

## A. Concepts and terminology

### 1. Agricultural Economics Terms

It is useful to have a basic understanding of agricultural economics concepts in order to consider small farm economic viability:

- **Supply:** *The goods (e.g., agricultural products) and services (e.g., agricultural labor) available in an agricultural system or economy. The abundance or scarcity of these influences their price or cost. When supplies are abundant, all other things equal, prices are low; when supplies are relatively scarce, all other things equal, prices are higher.*
- **Demand:** *The market, or consumer, demand for goods and services. If demand is high for a good or service, prices will be relatively low, and vice versa, all other things equal.*
- **Price equilibrium:** *The point where supply meets demand.*
- **Cost of production:** *Includes all inputs needed for production. This includes land rent, seed, animal feed, animals, labor (either hired or owner/family labor), equipment, water, fuel, marketing costs, etc.*
- **Revenue:** *The money taken in at the point of sale.*
- **Farm-gate price:** *The price that the farmer receives for a product at the farm. Does not include costs of transportation to market, thus farm gate prices will be lower than retail if products are sold off-farm.*
- **Marginal costs and returns:** *The costs and returns (revenues) per unit of production.*
- **Fixed costs:** *The costs that are fixed, regardless of the quantity produced. Examples: Barn, tractor, land.*
- **Profit:** *Essentially the difference between price received and cost of production. Fixed costs (costs that do not increase with increased scale, such as the purchase of a tractor) and variable costs (that depend on scale, such as amount of seed needed) influence the cost of production and thus the profit.*
- **Economies of scale:** *In economics, “economy” refers to “efficiency.” Larger farms produce more “economically” as production cost per unit is lower as amount produced increases (marginal costs). This does not take externalities (defined below) into account.*
  - **Example:** It may cost a large grower \$0.02 per apple produced, while the small grower has a cost of \$0.04 per apple. The large firm can sell 100 apples for \$0.03 each and make one cent per apple, totaling \$1.00, while the small grower would need to sell the apple for \$0.05 per apple to make one cent per apple and earn \$1.00.
  - Small farms that produce efficiently may be equally efficient (or more efficient, if externalities are taken into account) as large farms in some circumstances.
  - Other studies have more closely examined how economies of scale have been evaluated and purport that economies of scale measurements may not account for other factors that differentiate small farms from large ones. Small farms may have poorer quality land, and are likely to have off-farm employment, which takes away from management time and may lead to less efficient labor management (Peterson, 1997).
- **Externalities/Externalized Costs of Production/“hidden costs”:** *Impacts of an economic activity on individuals or entities when they are not included in economic analysis (e.g., environmental pollution from the use of pesticides and fertilizers in agriculture; substandard working conditions and wages of agricultural labor).*
- **Commodity Crop:** *The term refers to crops such as wheat, corn, soy that are produced in large quantities for trade and sale in the commercial marketplace. Most of what are considered commodity crops are subject to subsidies by the USDA, under terms spelled out in the Farm Bill.*

- **Specialty Crop:** *A crop that is not classified as a commodity crop. In the Farm Bill and related programs, this category includes most fresh fruits and vegetables, though in marketing, specialty crops are those for which there is a niche (or small and specific) market. Examples include bitter melon, heirloom tomatoes, pithahaya, etc., as well as early- or late-season products such as blueberries produced in hoop houses and harvested up to a month before availability in the mainstream market.*
- **Vertical Integration:** *The merging of different stages of production into a single business. Agricultural firms that grow, process, and market their products are considered vertically integrated operations.*
- **Value-added:** *A product that has gone through processing which increases its market value to customers. Examples include jams, jellies, and sauces made from farm produce, cheese made from milk produced on the farm or ranch, dried herbs, etc.*

## 2. Government Definitions

Governmental definitions related to agriculture and farms have important and far-reaching political implications for agricultural producers. Government definitions qualify farmers for participation incentives in the Farm Bill, as well as assistance from the numerous USDA agencies that provide technical support to farmers (such as Risk Management Agency's agricultural insurance programs, the Farm Service Agency's credit and loans, and other assistance and granting programs.)

- **Farm operators and workers.** The USDA uses the following classifications of people who own and/or work on farms:
  - **Farm owner.** *The person or entity that owns the land upon which agricultural production occurs.*
  - **Farm operator.** *The person who runs the operation of a farm and who makes day-to-day management decisions. This can be an owner, hired manager, a tenant, or a partner.*
  - **Tenant farmer.** *A person who produces agricultural products on another's land, typically in exchange for rent. A tenant farmer may be a farm operator by the USDA definition.*

- **Sharecropper.** *A farmer who produces agricultural products on another's land. Generally, a sharecropper retains part of the revenue from the products produced, while the remainder is retained by the landowner. A sharecropper may be a farm operator, by the USDA definition.*
- **Farmworker.** *Generally, a person working on a farm. However, in the United States, farmworker has become all-but-synonymous with low-paid, immigrant agricultural worker. In the 2009 National Agricultural Workers Survey, 72% of all farmworkers were foreign-born, and 68% of all farmworkers were born in Mexico.*
- **Specific groups.** The USDA also identifies specific groups of farmers (who may be farm owners or operators) that may be eligible for specific government agricultural assistance programs:
  - **Socially disadvantaged farmer or rancher:** *A farmer or rancher who is a member of a "Socially Disadvantaged Group, defined as one whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. These groups include African Americans, American Indians or Alaskan natives, Hispanics, and Asians or Pacific Islanders.*
  - **Limited resource farmer:** *A person with direct or indirect gross farm sales not more than \$172,800 (for FY2013) in each of the previous two years.*  
*A person with a total household income at or below the national poverty level for a family of four or less than 50 percent of county median household income in each of the previous two years.*
  - **Beginning farmer:** *The USDA considers a Beginning Farmer or Rancher means an individual who:*  
*Has not operated a farm or ranch, or who has operated a farm or ranch for not more than 10 consecutive years. This requirement applies to all members of the farm entity.*  
*Will materially and substantially participate in the operation of the farm or ranch.*

- **Organic, as defined by USDA:** *The national-level standards for organic production went into effect in 2002. (Prior to this, states had their own certification standards.) The USDA Agricultural Marketing Service's National Organic Program administers certification and labeling of products in three general categories: crops, livestock products, and multi-ingredient (e.g., processed) foods. Generally, these standards pertain to use of synthetic fertilizers, pesticides, herbicides, and animal hormones; animal welfare and animal feed; and genetic engineering (aka genetically modified organisms, or GMOs). The comprehensive set of regulatory standards are found on the NOP website.*