



Planning and Zoning for Local Food Systems

Food Production

Center for Land Use Education Fact Sheet

We rely on our food system to produce the food we eat every day. Yet we don't always realize the complex web of relationships, regulations, and infrastructure that goes into our food system. The food system includes everything from food production, processing, and distribution, to access, consumption, and waste recovery.

Even though agriculture has become increasingly industrialized and globalized since World War II, interest in local food systems—that is, systems that produce food locally to meet local needs—has grown over the last decade. There is no consensus for the definition of “local”, but some common definitions of local include within 100 miles or within the state. Local food systems can improve access to fresh, healthy food; contribute to the local economy; and reduce energy, waste, and environmental degradation. In addition, public demand for local food at farmers markets, grocery stores, and other institutions has grown, as well as community interest in food production at home or in community gardens.

Consumers often associate local food with other characteristics, such as environmentally sustainable production and distribution.¹ This fact sheet will address the first aspect of the food system: production. It will focus primarily on the availability of land for food production near or within urban areas. Some types of agriculture are more suitable for urban areas, including organic or low pesticide production intended for sale to local residents.² One study estimated that 56 percent of the population in the Midwest could be supplied with a balanced diet of food produced within five miles.³

Local Food Farms

The majority of local food production occurs on farms. Generally we think of farming taking place in rural areas, but 39 percent of US farms are located in metropolitan areas.⁴ In Wisconsin, there are over 78,000 farms and 15 million acres of land in production.⁵ Of those, most are commodity farms producing crops and livestock for trade in national and international markets.⁶ The exact number of local food farms (or those farms serving local food needs) in Wisconsin is unknown, but an estimated 5 percent of farms nationally report local food sales.⁷

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In Wisconsin, 6,243 farms sell direct to consumers through farmer's markets, community-supported agriculture, or other outlets.⁸ In addition, many local food farms sell through intermediated markets such as regional distributors, grocery stores, restaurants, or other retailers.⁹ Local food farms are more likely to be smaller in size, family-owned, and located in or near metropolitan counties. As a result, local food farms may uniquely experience the pressures of development. Because of their size, local food farms can respond to local needs but may be limited by scale. In addition, the producers are often younger and have more formal education. As demand for local food grows, the number and/or size of local food farms may also need to grow to meet that demand.

Many factors affect the types of products that producers grow and raise, such as climate, soil, cultural and personal preferences, and marketing and distribution networks. Many local food farms grow a wider variety of products than commodity farms. Most local food farms are vegetable, fruit, and nut farms, with a smaller percentage of local food farms producing other field crops or livestock.¹⁰ Local food farms often distinguish themselves by selling niche products, such as organics, or heirloom plant varieties or animal breeds. This allows them to generate higher gross sales per acre from smaller farms.¹¹ For that reason, some local food farms may use less land than other types of farming. Most local food farms are located on private land, though a small number of local food farms are operated by nonprofits on publicly owned land in U.S. cities.¹²

Non-Farm Food Production

In addition to farm production, some local production occurs off farm. For example, many households grow food for their own use. An estimated 31 percent of households participate in food gardening, mainly at their own homes but also at

friends', neighbors', or relatives' homes, or at community gardens.¹³ There are over 100 documented community gardens in Wisconsin, and the list is growing.¹⁴ In addition to gardens, some communities are also starting community orchards.¹⁵ Many communities also have volunteer programs to grow food for people experiencing poverty, such as food pantry or church gardens, or Plant A Row for the Hungry. These types of non-farm food production sites can be located on public or private land. For example, many schools are starting gardens for student education and cafeteria use.

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“Traditionally planners have attempted to *draw their lines* between the urban and the rural, essentially creating areas of food production and food consumption. However, this *dichotomy* often proves to be an oversimplification and may be harmful to the socially desirable goal of sustainability.”

Hemert and Holmes¹⁶

Planning

There are several components of community planning in which local governments can consider and promote local food production.

Build relationships with food system partners in the community and region involved in local food production on farms and in your community. This may include:

- Small and mid-size producers
- Producer groups
- Nonprofits
- Institutions

Determine the best way to engage partners on an ongoing basis to address food production needs, such as through a food policy council, a standing or ad hoc committee, or regular communication with appropriate staff.

Gather data on local food production.

For example:

- Work with community and university partners to conduct a food system assessment that determines the boundary's of the local foodshed.¹⁷
- Assess the pressure of development on agricultural land used for local food production. Conduct a land inventory assessment to identify public and private land suitable for local food production.¹⁸
- Participate in regional efforts to determine the land requirements, producers, and amount and types of product necessary to feed the local population.¹⁹

Address local food production in community plans

including comprehensive, farmland preservation, sustainability, and other plans.^{20,21}

- Develop specific and measurable goals for local food production, considering both farm and non-farm production.

- Identify ways to reduce barriers to local food production. Review zoning code. Provide in-kind or financial support for programs that enable area farmers to serve the local food system.
- Recognize the benefits of food production in close proximity to urban centers. Identify and address areas suitable for long-term food production in your county's farmland preservation plan.
- Promote mixed use development that includes neighborhood-level food production through home and community gardens and orchards, and raising micro-livestock such as chickens or bees.²²

Model Comprehensive Plan Goal and Objectives

Comprehensive plan goals identify community priorities and set the direction for future action. Include local food production in appropriate elements:

Goal: Support local food production that strengthens the local food system

1. Provide or support networking and educational opportunities for local food producers and other food system partners
2. Address farm and non-farm local food production in the zoning code
3. Support beginning local food farmers by providing access to resources, such as affordable farmland
4. Provide food producers with market analysis to help them access local markets and meet local food needs

Regulation

Local regulation affecting food production primarily occurs through zoning and farmland preservation. There are several areas in which local food production could be considered.

Educate local government officials, staff, and the public about food production regulations. Provide the information on local government websites.

Specifically define components of local food production in the zoning code.²³

Include both agricultural land such as farms and community gardens and accessory structures such as greenhouses, hoop houses, raised beds, fish tanks, chicken coops, rainwater collection systems, etc.^{24,25}

Review the zoning code and reduce unnecessary barriers to food production in each district (e.g., residential, commercial, open space, and mixed use).

- Distinguish between intensive, and less intensive, food production.²⁶ A farm might make sense as a conditional use in some districts, whereas a community garden might make sense as a permitted use.
- Consider creating districts specifically for food production, such as urban agriculture districts in urban areas,²⁷ or local food production districts on the development fringe.²⁸

Use appropriate regulation, rather than outright bans, to address local food production nuisances. For example,

- Allow micro-livestock in select districts with appropriate limitations (e.g., allow hens but not roosters). Common regulations address number and type of animals, allowable zones, site specifications such as lot size and setbacks and types of accessory structures, slaughtering, and disposal.^{29,30} Most zoning ordinances do not address slaughtering, except to note that it is banned. However, slaughtering is a means of disposal

and an important cultural practice to some immigrant and refugee populations that can be regulated.³¹

- Permit home gardens in residential districts and review landscaping requirements in all districts. Include regulations that balance edible landscaping with maintenance standards and user rules.³²

In addition to farmland preservation in general, consider ways to preserve or encourage food production in particular.

For example:

- Create agricultural conservation easements through local government or an area land trust that are specific to local food farms, community gardens, and orchards.³³
- Support programs that provide resources to beginning local food farmers. Learn about ways municipalities, institutions, and land trusts can lease land to farmers.³⁴

Model Local Food Production District

Local food production districts address agriculture on the development fringe. This district is focused on local, rather than commodity, food production.

- Permitted uses include produce farms, nurseries, greenhouses, community supported agriculture, community gardens, and so forth.
- Provisional uses include animal husbandry, residential food processing, and agricultural retail.
- Conditional uses include aquaculture, schools, community buildings, etc.

Examples in Wisconsin

Below are examples of planning and zoning activities related to local food production.

Eau Claire Comprehensive Plan - Health Chapter

<http://bit.ly/1hJcW8G>

In August 2013 the city of Eau Claire approved adding a new health chapter to their comprehensive plan. The chapter has six objectives, including food and nutrition. Below are a few of the policies related to local food production that are included:

- Increase the number of neighborhood and community gardens in public spaces.
- Consider allowing limited animal husbandry while protecting against possible associated nuisances.
- Consider creating a master plan for the community's food system.

Urban Agriculture in Appleton

www.appleton.org/municipal_code/

In 2012 the city of Appleton updated their zoning code to include urban agriculture. Definitions were created for community gardens and urban farms. Neither definition includes micro-livestock, which is being discussed separately. In addition, the city added a new special use permit for urban farms, which are allowed in several districts (including residential). This addition was in response to nonprofit Riverview Gardens' desire to redevelop an urban farm on an old golf course.

After submitting a special use application that included an urban farm management plan, Riverview Gardens was approved to develop the farm on the 72-acre site, roughly a third of which will be used for intensive food production.



Portage County Zoning Ordinance

www.co.portage.wi.us/ordinances/Chapter%207.pdf

Although considered a rural county, Portage County did not allow chickens in residential districts until 2010 when a group of residents encouraged the county to pass an ordinance. The Portage County Zoning Ordinance includes specific provisions for keeping chickens under Section VI. Up to 12 chickens are allowed in the R1, R2, and R5 residential zoning districts. Roosters are prohibited and no slaughtering or butchering is allowed on site. The chicken coop must be 50 feet from any adjoining property line or well, and 100 feet from any neighboring residence.

Conclusion

Production of food for local and regional consumption represents a small, but growing, segment of Wisconsin food production. Communities that engage in planning and zoning for their local food system may be better prepared to address production issues related to land use.

Written by Kristy SeBlonka and Anna Haines, Center for Land Use Education. 2013. Reviewed by Lynn Markham and Becky Roberts, CLUE; Erin Peot, Center for Community and Economic Development; Carrie Edgar, Dane County UW-Extension; and Teresa Engel, Department of Agriculture, Trade, and Consumer Protection. Publication available on CLUE's website: www.uwsp.edu/cnr-ap/clue. Photo credits: Sunny Sky Farm (front) and Riverview Gardens (above).

References

- ¹Martinez, Steve, et al. May 2010. Local Food Systems: Concepts, Impacts, and Issues. USDA Economic Research Report 97.
- ²Markham, Lynn. Farming Subdivisions: Problematic or Promising? Land Use Tracker. Winter 2007.
- ³The study estimated the “per capita” cropland requirement in the Midwest, taking into consideration the distance between population centers and cropland, variations in yield among 40 crops grown in the Midwest, and targeted dietary recommendations. See Hu, Guiping, Wang, Lizhi, Arendt, Susan, and Randy Boeckenstedt. Fall 2011. “An Optimization Approach to Assessing the Self-Sustainability Potential of Food Demand in the Midwestern United States.” Journal of Agriculture, Food Systems, and Community Development. Volume 2, Issue 1.
- ⁴Metropolitan areas have an urban population center of over at least 50,000.
- ⁵National Agricultural Statistics Services. 2011 State Agriculture Overview: Wisconsin.
- ⁶While the term “commodity” has been used more broadly in recent years, the authors use it in its traditional sense in regards to trade in national and international markets.
- ^{7,9,10,11}Low, Sarah A. and Stephen Vogel. November 2011. “Direct and Intermediated Marketing of Local Foods in the United States.” USDA Economic Research Report 128.
- ⁸USDA Census of Agriculture. 2007 Wisconsin Data. Available at www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Wisconsin/.
- ¹²For an example, see the Incubator Farm Project in North Carolina at www.cefs.ncsu.edu/whatwedo/foodsystems/incubatorfarmproject.html.
- ¹³National Gardening Association. 2009.
- ¹⁴UW-Extension. FEEDS website. Accessed at <http://feeds.uwex.edu/index.cfm>.
- ¹⁵See Ames, Guy. May 2013. Community Orchards. Available at <https://attra.ncat.org/publication.html#horticultural>.
- ¹⁶Hemert, James van, and Joe Holmes. 2007. Putting Sustainable Community Development in Context: A Look at the Food System. Rocky Mountain Land Use Institute.
- ¹⁷Freedgood, Julia, Pierce-Quiñonez, Marisol, and Kenneth A. Meter. December 2011. Emerging assessment tools to inform food system planning. Journal of Agriculture, Food Systems, and Community Development. p. 86-88.
- ¹⁸Most Wisconsin agricultural land is for commodity crops. See page 4 in the Center for Land Use Education’s Wisconsin Land Use Megatrends Agriculture, available at www.uwsp.edu/cnr-ap/clue/Pages/publications-resources/LandUseMegatrends.aspx.
- ¹⁹An example of a land use assessment that considers a regional diet is the Western Lake Superior Region diet. More information can be found at www.superiorfoodweb.org/LAFS/HFHL_FINALREPORT.pdf.
- ²⁰See actions by component in Roberts, Rebecca. Planning for Community Food Systems. Land Use Tracker. Winter 2007.
- ²¹Find a link to your community’s comprehensive plan on the Department of Administration’s website: <http://bit.ly/1fVZaLP>.
- ²²Mixed use development is generally thought of as a mix of residential and commercial, but can be broadened to agriculture, recreation, and other uses.
- ²³ChangeLab Solutions provides some definitions for urban agriculture. See Wooten, Heather (ChangeLab Solutions). October 2011. Seeding the City: Land Use Policies to Promote Urban Agriculture.
- ^{24,27,33}Harvard Law School Food Law and Policy Clinic. July 2012. Good Laws, Good Food: Putting Local Food Policy to Work for Our Communities.
- ²⁵Obtain a copy of the local zoning code from your local municipality. Most Wisconsin cities, villages, and counties have adopted general zoning. Towns may participate in county zoning, or have their own general zoning if the county does not. See Roberts, Rebecca and Lynn Markham. 2007. Planning Implementation Tools: Zoning Ordinances. CLUE.
- ²⁶See Mukherji, Nina, and Alfonso Morales (American Planning Association). March 2010. Practice Urban Agriculture. Zoning Practice, Issue 3.
- ²⁸Ross, Brian (CR Planning, Inc.). 2008. Local Food Networks. Updated Model Ordinances for Sustainable Development. MPCA.
- ²⁹Typical types of micro-livestock include chickens, bees, and goats. See Bouvier, Jaime (American Planning Association). April 2013. Practice Urban Livestock. Zoning Practice. Issue 4.
- ³⁰Butler, William. February 2012. Welcoming Animals Back to the City: Navigating the Tensions of Urban Livestock through Municipal Ordinances. Journal of Agriculture, Food Systems, and Community Development. Volume 2, Issue 2.
- ³¹See Burlington Urban Agriculture Task Force Report for recommendations for a slaughtering ordinance, including how to manage waste, disposal, and sitelines. Available at <http://burlingtonfoodcouncil.org/our-projects/uatf/>.
- ³²Ross, Brian (CR Planning, Inc.). 2008. Landscaping and Maintenance of Vegetation. Updated Model Ordinances for Sustainable Development. Minnesota Pollution Control Agency (MPCA).
- ³⁴To learn more, see *Land for Good. Leasing Land to Farmers: A Handbook for New England Land Trusts, Municipalities, and Institutions*.