A partnership between Forward Pinellas and the City of St. Petersburg

FORWARD PINELLAS
Integrating Land Use & Transportation

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URBAN AGRICULTURE

Bayboro Food Forest at University of South Florida-St. Petersburg

The term “agriculture” conjures up an image of open land for growing crops or grazing livestock. But in an urban environment where land is at a premium, farming comes in many other creative forms. Gardens in residential front yards, rooftop greenhouses, community gardens on vacant lots, backyard chickens and beehives...the possibilities for growing fresh local food are nearly endless. And popular demand for these products is growing.

Many local communities have embraced urban agriculture. Others may be looking to encourage it, but don’t know where to start—or are still considering whether to allow it at all. To help with those decisions, this handbook draws from the experience of local governments, farm owners, educators and others. We provide an introduction to the spectrum of agricultural activities in the urban environment, discuss the potential benefits and regulatory considerations, and provide links to resources for further information.

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Why encourage urban agriculture?

Today, up to 15% of our food originates from within metropolitan areas.[1]

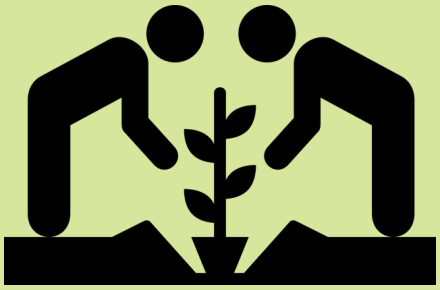
There are 44 community gardens, urban or hydroponic farms in Pinellas County.[1]

In Pinellas County, only 15% of residents are within walking distance of a grocery store.[2]

Urban farms and community gardens can cause neighboring property values to rise.[3]

In the United States, 38% of adults and 20% of children are classified as obese.[4]

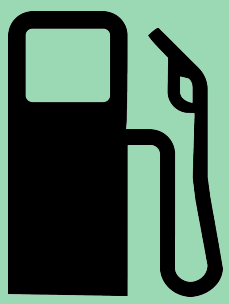
Studies show urban farming leads to greater fruit and vegetable consumption.[5]



Urban farms reconnect people with their food and foster a sense of community.[6]

Fresh produce can travel more than 1,500 miles on average by either truck, freight, or air.[7]

Increasing local fresh produce consumption by 10% could save 300,000 gallons of fuel per year.[7]



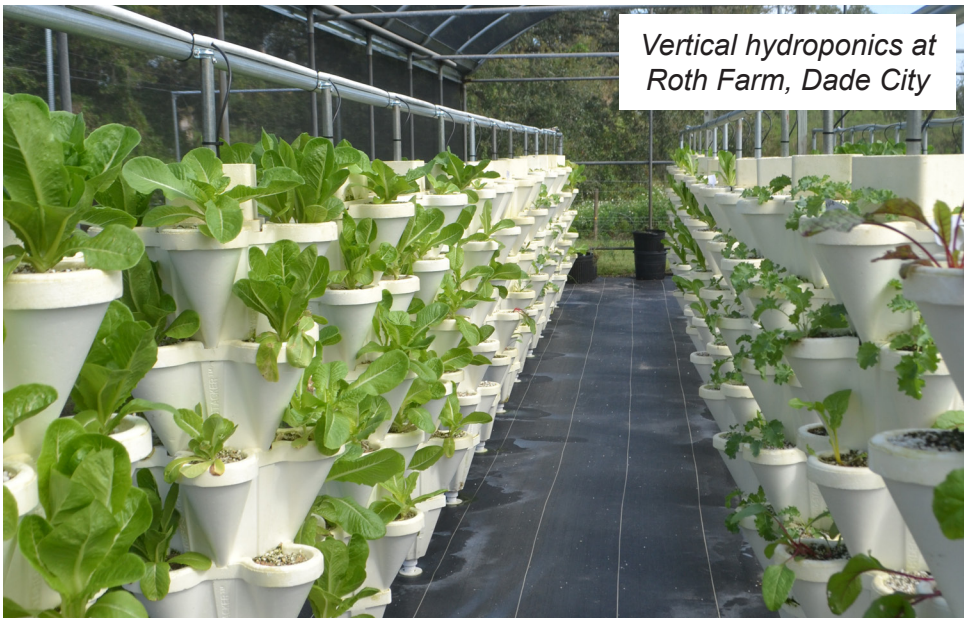
Annual greenhouse gas emissions from agriculture are 8% of the U.S. total.[8]

Shifting to a diet higher in fresh produce can eliminate 20-30% of these released emissions.[8]

Opportunities and Challenges

Growing food in an urban environment can bring many benefits, from nutritional to economic, from educational to community-building. Gardens and small farms can make productive use of spaces that would otherwise lie empty. Food grown can be used to offset a family's grocery budget, sold for extra income, or donated to those in need, while keeping more of residents' dollars within the local community. Farmstands or markets can serve areas without convenient access to grocery stores. Since the food doesn't need to be transported long distances, crops can be sold soon after they're picked, at their freshest and most nutrient-dense.

By its nature, urban agriculture also encourages social interaction and community building. New farmers can learn from experienced mentors. Community gardens invite volunteers to work together in a shared space. And buying locally-grown products can connect consumers with farmers in a personal way, providing greater understanding of where the food we eat comes from.



Vertical hydroponics at Roth Farm, Dade City

But for all these benefits, there are reasons that farming is rare in urban areas: Land is expensive and often not optimal for growing. Urban farmers must compete with large rural farms that sell food at high volume for much lower prices, making it difficult to operate commercially. Local governments, meanwhile, must craft regulations that meet the needs of both farmers the surrounding development, while remaining consistent with the Countywide Plan and the Florida Right to Farm Act.

For communities that want to encourage urban farming, it's beneficial to consider it as a system, including not only growing food but also mentoring new farmers, creating a market for value-added products, encouraging resource recovery through composting, promoting nutritional education, and ensuring that all residents have access to fresh food. The following pages discuss different parts of this system, with links to informational resources and examples from communities around Florida and the United States.

University of Florida's Institute of Food and Agricultural Sciences Extension (UF/IFAS)

Dimensions of Urban Agriculture

What factors does a community need to consider before allowing urban agriculture? The term “agriculture” covers a large spectrum of activities, not all of which are appropriate for a developed urban area. This section walks through the regulatory issues that need to be considered when deciding what to allow in your community.

Type

Plant-based agriculture includes **crops**, or plants grown for food, and **horticulture**, which includes other plants such as flowers.

Animal husbandry is the raising of livestock, which may be large or small. It may include **ruminants** (grazing animals such as cows, horses or goats), **poultry** (birds such as chickens or ducks), or other animals such as pigs. Products may include meat, dairy products, wool, or manure for plant fertilizer. The farming of fish or other seafood is known as **aquaculture**.

In the United States, few insects are bred for food purposes other than honeybees; beekeeping is also known as **apiculture**. However, worms can be used to help generate compost, a practice known as **vermiculture**.

Form

A **traditional farm or garden** uses open land used for growing crops (either directly in the ground or in raised beds) or for grazing livestock. But particularly in an urban environment, creative farming techniques come in a variety of other forms.

A **food forest** (also called **agroecology**) mimics a woodland ecosystem by substituting trees and plants that produce food, while also offering shade and other environmental benefits.

Plants can be grown on building surfaces, such as **rooftop gardens**, or by **vertical farming** on indoor or outdoor walls. **Hydroponic** farming grows plants primarily in water rather than soil, often in fully enclosed buildings, as discussed on page 8.

Fish may be raised in indoor or outdoor tanks, alone or in symbiosis with hydroponic crops (known as **aquaponics**). In the controversial practice of **intensive animal farming**, even livestock can be raised indoors in cages or other enclosures, although these uses are not typically found in urban areas.

In practice, many farms fall in between strict definitions of indoor or outdoor, using some combination of open space, partially-enclosed barns or greenhouses, and fully-enclosed buildings.

Community Garden (courtesy of Wunderfarms, St. Petersburg)

Indoor vertical hydroponics

Aquaponic greenhouse

Backyard beekeeping

Backyard chickens (courtesy of UF/IFAS)

Small-scale composting (courtesy of UF/IFAS)

Educational workshop (courtesy of UF/IFAS)

Rooftop garden

Scale

Some communities distinguish between **large-** and **small-scale farms** and allow them in different locations. The USDA definition of a small farm is one with up to $250,000 in annual sales. In an urban setting, the size of the property could also be used. For example, those smaller than one acre could be classified as small-scale and allowed in more zoning districts than larger farms.

Other jurisdictions, including in Pinellas County, distinguish **community gardens** from **agriculture** based on a combination of size, ownership and activities. Community gardens are typically operated by nonprofit organizations or other groups of individuals, with products for member consumption or donation rather than retail sales, and are considered less intensive than commercial farms.

Another distinction is whether a farm or garden is a **primary land use** (a standalone land use that occupies an entire parcel) or **accessory** to another residential or nonresidential use. For example, a homeowner may cultivate crops in their front yard, or a restaurant may use a portion of its property to grow vegetables to serve its customers.

Activities

Agriculture encompasses a range of activities beyond simply growing crops or housing animals. **Indoor or outdoor storage** may be needed for equipment, fertilizer, feed, and harvested products. Some farms engage in supportive activities such as **composting** and **rainwater collection**. Additionally, there may be on-site **processing** (preparation, packaging and distribution) of plant or animal products.

Particularly in urban areas, many farms find it economically necessary to supplement their agricultural activity with other activities. **On-site sales** are often a key component, as discussed on page 7. Some farms may also hold **special events** such as festivals or educational demonstrations, or offer rental space for private functions.

Potential Impacts

All land uses have potential impacts on adjacent properties. Special considerations for farms include **noise** from equipment, **odors** from animals, fertilizer or compost, **runoff** from irrigation, **insects or pests** attracted by food sources, and the **aesthetics** of agricultural operations.

Key Topics

Compost

Composting Pilot Project at Pinellas County Solid Waste Facility

An essential ingredient for many farms and gardens is compost, or organic matter that has undergone biological decomposition over weeks or months. Farmers and gardeners add finished compost to soil to make it fertile for vegetable production. Most Pinellas County soil is sandy and not ideal for growing crops without the addition of compost or other fertilizer. Small-scale farmers and gardeners often produce compost on site, either in containers or directly in the ground. While composting can potentially create odors, best practices exist to significantly limit or eliminate this issue.

Unfortunately, many farms need more compost than they are able to produce, and local urban farming advocates cite a need for formal food waste recovery and composting efforts by neighborhoods or local governments.

Such programs have multiple benefits: A 2014 study by the Pinellas County Department of Solid Waste found that 18.5% of the commercial garbage it processes—more than 55,000 tons each year—is food waste, which decreases the efficiency of the County's Waste-to-Energy Facility due to its high moisture content. Following a 2017 pilot program that demonstrated its ability to produce high-quality compost, the department is conducting a master plan process which will explore large-scale composting and the market potential for a permanent program. The completion of the master plan is targeted for the summer of 2019.

While there is enough demand to support private-sector compost businesses, local and state regulations can make them difficult to operate. Many jurisdictions lack regulations specific to compost businesses, and instead classify them the same as larger solid waste disposal providers, with business taxes and hauling/tipping fees based on quantities significantly greater than what a small-scale compost business typically generates. The State of Florida does permit businesses meeting certain criteria to register as organic waste recycling operations in lieu of obtaining a solid waste permit, as provided in the link below.

Communities seeking to promote urban farming can consider encouraging neighborhood-scale composting efforts, structuring taxes and regulations to support compost generation and sales, and exploring efforts to recycle food waste as part of the solid waste collection process.

Examples and more information:

- *Urban Agriculture, Composting and Zoning* by the Ohio Environmental Protection Agency at **cccfoodpolicy.org/sites/default/files/resources/oepaurbanagcompostingzoning.pdf**
- The State of California's community-scale composting information page at **www.calrecycle.ca.gov/Organics/CompostMulch/Community.htm**
- The Florida Department of Environmental Protection's Source-Separated Organics Processing Facilities information page at **floridadep.gov/waste/permitting-compliance-assistance/content/source-separated-organics-processing-facilities**

Sales

Many small urban farms produce food in amounts too small to support regular, high-volume supermarket sales. Instead, products may be sold to subscribers in exchange for a membership fee, at farmer's markets, or in stores or farmstands on-site. Current land use and zoning regulations in Pinellas County prohibit on-site retail sales in some locations, particularly residential neighborhoods. However, we are currently revising the Countywide Plan to allow on-site sales as a local option (see page 15).

St. Petersburg Saturday Morning Market

Allowing the sale of farm products in neighborhoods can enable a key benefit of urban farming: the ability to relieve "food deserts." These areas are defined by the United States Department of Agriculture (USDA) as lacking convenient access fresh food, compounded by lower incomes that limit residents' mobility. Allowing on-site sales in neighborhoods places more residents within walking distance of fresh food. And since there's no need for sellers to pay transport costs or purchase market space, the food can be sold less expensively.

Farmers markets, or temporary retail installations that appear in the same location on a regular schedule, are another important means of connecting residents with fresh food. These markets can be particularly beneficial when located close to underserved areas, and when vendors accept Supplemental Nutrition Assistance Program (SNAP) dollars. Federal grants are available to help communities establish these resources, with links provided below.

Local food sales can also be used to drive tourism. In addition to farmers markets, pop-up markets happen in conjunction with special events rather than at a regular place and time. Individual farms may also offer special events to supplement their income from regular sales. Markets and events can serve as a draw for visitors as well as residents.

Some communities go further in leveraging the economic potential of locally grown agriculture, building extensive marketing campaigns around unique local food products and experiences. Known as agritourism, these efforts can potentially drive new populations of visitors to their metropolitan areas.

Examples and more information:

- USDA Food Access Research Atlas at **www.ers.usda.gov/data/fooddesert**
- USDA Farmer's Market Promotion Program at **www.ams.usda.gov/services/grants/fmpp** and assistance with accepting SNAP benefits at markets at **www.fns.usda.gov/ebt/snap-and-farmers-markets**
- America's Farm-to-Fork Capital, a campaign of the Sacramento, California Visitor's Bureau at **www.farmtofork.com**

Indoor Farming

Indoor farming at Brick Street Farms, St. Petersburg

Also known as **controlled environment agriculture**, indoor farming can be a solution for urban areas where land is scarce and expensive, or soil quality is less than optimum—both conditions we face in Pinellas County. Instead of soil, indoor crops are typically grown **hydroponically**, in a medium of water and nutrients. Variations include **aeroponics**, in which crop roots are misted rather than immersed; **bioponics**, which incorporates microorganisms into the nutrient solution; and **aquaponics**, where fish are raised symbiotically with plants. Crops grown using these methods can be stacked vertically to produce more food in significantly less space than traditional farming.

Indoor farmers have a great deal of control over the environment, including lighting and moisture that affect the growth cycle of crops, and prevention of pests and diseases. While they use more electricity than a traditional farm due to the need for artificial lighting, the amount of water used is generally much lower. Planting can also be customized to harvest predictable amounts of crops on a regular schedule.

Potential land use impacts from these uses are different from those of outdoor farms or gardens. From the outside they may resemble office or manufacturing uses, lacking the visual appeal of open green space. However, they also typically lack negative impacts such as water and fertilizer runoff or pest attraction. The enclosed nature of these farms make them potentially compatible with a wide range of land use and zoning categories.

Given this compatibility, and the scarcity of industrial and employment land in Pinellas County, there is benefit in allowing and encouraging indoor farms to locate in commercial and appropriate residential areas, close to the businesses and consumers they serve. However, these considerations must be balanced against the limitations on local land development regulations imposed by the Right to Farm Act, as discussed on page 13.

While land costs are lower than for traditional open-space agriculture, indoor farmers need to make substantial up-front investments in technology, including electrical and potable water infrastructure. Therefore, they may particularly benefit from small business loans or grants to help defray these startup costs.

More information:

- *The State of Indoor Farming 2017* by Agrilyst, a private sector company, in partnership with Cornell University at **www.agrilyst.com/stateofindoorfarming2017**
- *Hydroponic Vegetable Production in Florida* by UF/IFAS at **edis.ifas.ufl.edu/hs405**

Bayboro Food Forest at University of South Florida-St. Petersburg

Soil & Food Safety

In urban areas, much of the soil available for growing is directly adjacent to urban development, and may have been previously developed itself. In an environment filled with buildings, automobiles, pollution and other elements of city life, how clean is the soil and the food grown in it?

It's true that some urban soil may contain lead or other contaminants, particularly near older structures built before these materials were banned. Soil testing can help, but there are many different potential compounds that could be present, which must be tested individually. Researching the history of the property is important in deciding whether and how extensively to test its soil. For example, a property formerly used as a dry cleaners would have different potential contaminants than one used as a residence.

But even where these substances are present, research has found that the risk of soil contaminants entering crops is relatively low. While root vegetables such as carrots do take up some contaminants, most above-ground crops, such as leafy greens, do not. These foods should be safe to eat as long as the soil is washed off before consumption—just like food purchased at a supermarket.

Best practices can also help. Adding compost to soil helps dilute and bind lead or other contaminants, making them less bioavailable. An even more robust solution is to use raised beds with new, uncontaminated soil, separated from the ground by a layer of mulch and/or cardboard.

Urban farms and gardens are typically small-scale, and often the is food grown and harvested by those who consume it or whom the consumer knows personally. Many urban farmers also purposefully avoid the use of pesticides or chemical fertilizers. This increased transparency can help encourage the use of best practices for safe growing and harvesting.

More information:

- "Risk of lead poisoning from urban gardening is low, new study finds." University of Washington news release at **www.washington.edu/news/2016/02/02/risk-of-lead-poisoning-from-urban-gardening-is-low-new-study-finds**
- The Sustainable Economies Law Center's soil overview at **www.urbanaglaw.org/soil** and food safety overview at **www.urbanaglaw.org/food-ag-and-health**
- Brownfields and urban agriculture resource page by the U.S. Environmental Protection Agency at **www.epa.gov/brownfields/resources-about-brownfields-and-urban-agriculture**

Local Government Strategies

Land Use, Zoning and Permitting

Local land use and zoning regulations direct various types of development to appropriate places, and protect nearby property owners from incompatible development. Future land use categories determine whether land is primarily residential, commercial, and so forth, and how intensely it can be developed.

Within these categories, land uses can either be allowed by-right (with no special approval process required), or as a conditional use or special exception, which require certain conditions to be met before a farm can be approved. Some communities allow planning/zoning staff to approve conditional uses and special exceptions administratively, but many require approval at a public hearing.

Overlaying the future land use categories, zoning districts govern more detailed aspects of land development and use, such as building heights, parking locations and hours of operation. Zoning districts are the primary means for a community to define and regulate the types of agriculture listed on pages 4 and 5.

For example, a local government may decide to allow crops to be grown by-right in residential districts, but require a special exception for animal husbandry. Some communities also require farm owners to obtain operating permits that must be renewed periodically for the farm to remain active. Supportive activities such as markets and festivals can also be regulated through event permits. In Pinellas County, local future land use and zoning districts need to be consistent with the Countywide Plan, as discussed on page 15.

Outdoor Wall Garden in Copenhagen, Denmark

However, it's important to note that under the Florida Right to Farm Act, local governments are restricted in what regulations they can impose on land that has received an agricultural property tax classification, as discussed in more detail on page 13. Regulation of specific activities, such as beekeeping, may also be preempted by the State (Section 586.10, Florida Statutes).

Examples and more information:

- Urban agriculture planning and zoning overview by the Sustainable Economies Law Center at **www.urbanaglaw.org/planning-and-zoning**
- *Seeding the City: Land Use Policies to Promote Urban Agriculture* by ChangeLabSolutions at **changelabsolutions.org/publications/seeding-city**
- Urban Agriculture Ordinance Wiki by the City of St. Petersburg and Open Partnership Educational Network at **sites.google.com/a/mail.usf.edu/open/programs2/open-themes/seeds-open-theme/city-of-st-pete---urban-agriculture-ordinance**

Public Land

Wunderfarms Community Garden at City of St. Petersburg's Boyd Hill Pioneer Settlement

Some communities set aside publicly-owned land for agricultural use, typically for nonprofit community gardens, but also potentially for commercial activities. This can be done as an incentive to encourage urban farming where suitable land is scarce, to exercise more influence over farming operations than possible with regulations alone, or both.

Local governments typically require execution of a use agreement or contract to outline users' rights and responsibilities. Particularly in residential areas, such agreements may limit activities that could create negative impacts on neighboring properties, such as the frequent use of high-powered farming equipment or spreading of manure as fertilizer. The agreements may also prohibit the building of structures such as sheds or greenhouses, impose setbacks from property boundaries, and limit the hours during which activity may take place. Some communities also require public land users to obtain their own liability insurance.

While local governments have a responsibility to protect neighboring land uses, imposing restrictions that are too strict may inadvertently discourage agricultural activities. Communities seeking to encourage urban farming on public land should seek input from both potential users and neighboring land owners to find a balance that considers all interests.

For nonprofit community gardens that depend on volunteer participation, a key issue identified by both local governments and community advocates is the potential for decline or abandonment of sites over time. Best practices that help limit this issue include designating a leadership team for the garden instead of relying on a single leader, outlining specific responsibilities, maintaining frequent communication, and preparing for succession when team members are no longer able to participate.

Examples and more information:

- *Dig, Eat and be Healthy: A Guide to Growing Food on Public Property* by ChangeLabSolutions at **changelabsolutions.org/publications/dig-eat-be-healthy**
- *Green Pattern Book: Using Vacant Land to Create Greener Neighborhoods in Baltimore* by the USDA at **www.fs.fed.us/nrs/baltimore/local-resources/downloads/nrs_inf_32-15-green-pattern.pdf**
- Sample community garden contract from the American Community Gardening Association at **communitygarden.org/resources/sample-community-garden-contract**
- Community garden leadership handbook from the City of Seattle at **www.seattle.gov/Documents/Departments/Neighborhoods/PPatch/Leadership-handbook.pdf**

Greenhouse at Roth Farm, Dade City

Incentives

In addition to favorable land use regulation and availability of public land, there are a number of incentives that local governments can offer to encourage the creation of community gardens or urban farms. Examples:

- The City of Orlando supports food systems planning and urban farming, including setting goals for increasing local food providers and distributors, at **www.cityoforlando.net/greenworks/food-systems**
- The City of St. Cloud, Florida has an urban agriculture staff member who helps the community gardens organize, find farming inputs, and provides educational programming at **www.stcloud.org/index.aspx?NID=1027**
- Miami-Dade County has its own local certification, Redland Raised, to promote fresh local produce at **www.miamidade.gov/business/agriculture.asp**
- Section 704.06, Florida Statutes, allows local governments or nonprofit organizations to purchase conservation easements, or perpetual restrictions against changing the land use of agricultural or natural lands, at **www.flsenate.gov/Laws/Statutes/2017/704.06**
- New York City's GreenThumb program provides tools, materials, seasonal workshops, and small grants to develop community gardens on previously vacant lots at **greenthumb.nycgovparks.org**
- The City of Cleveland Land Bank Program works to acquire vacant parcels and lease or sell them for approved purposes, including urban agriculture, at **www.city.cleveland.oh.us/CityofCleveland/Home/Government/CityAgencies/CommunityDevelopment/LandBank**
- The City of Cincinnati offers urban agriculture mini-grants to nonprofit or commercial entities at **www.cincinnati-oh.gov/oes/residential-programs/urban-agriculture-grants**

Information

Local governments can also provide informational web pages that explain their urban agriculture ordinances, walk through permitting procedures, or provide links to other helpful resources. Examples:

- Urban agriculture ordinance information from Pasco County at **www.pascocountyfl.net/2791/Urban-Agricultural-Ordinance**
- "Urban Ag Policy 101" brochure for Lawrence, Kansas from the Douglas County Food Policy Council at **assets.lawrenceks.org/assets/sustainability/urban-ag/community-food-production-guide.pdf**
- Urban agriculture ordinance information from Sacramento County, California at **www.per.saccounty.net/LandUseRegulationDocuments/Pages/Urban-Agriculture-Ordinance.aspx**
- Homegrown Minneapolis, a citywide initiative for urban farming and related activities at **www.minneapolismn.gov/sustainability/homegrown**

The Florida Right to Farm Act

In 1979, Section 823.14(6), Florida Statutes (F.S.), known as the Florida Right to Farm Act (FRTFA) was enacted by the Florida Legislature to prevent burdensome nuisance lawsuits against farmers. The intended purpose of the legislation was to protect agricultural activities in rural areas that were becoming more urbanized. But because it refers broadly to any land classified as agricultural, it can apply even in urbanized areas like Pinellas County.

FRTFA prohibits local governments from adopting any ordinance, regulation, rule or policy to prohibit, restrict, regulate or otherwise limit farming operations on land classified as agricultural land by the property appraiser pursuant to Section 193.461, F.S. A property owner can apply for the classification by demonstrating the presence of a "bona fide" farming operation, which is a commercial farm that has been active for at least one year, earns an income, and conforms to generally acceptable agricultural principles. About one hundred parcels are currently categorized as agricultural land by the Pinellas County Property Appraiser's Office.

In addition to FRTFA, Sections 553.73(10)(c) and 604.50, F.S., exempt nonresidential farm buildings on these lands from building permits. Local governments are limited to regulating instances of untreated or improperly treated human waste, garbage, offal, dead or diseased animals or dangerous waste materials. These limitations can inadvertently discourage local governments from adopting new pro-urban agriculture ordinances that include reasonable regulations to limit agricultural impacts to surrounding properties.

For urban communities seeking to allow farms for the first time, how can reasonable regulations be enacted to protect surrounding properties, given these restrictions? One potential option that some local governments have implemented is to restrict property owners from reclassifying parcels as agricultural land in urban areas. The cities of West Palm Beach and Stuart, Florida, both allow urban farms as a permitted use in certain zoning districts, subject to a provision that "A property owner shall be prohibited from seeking an agricultural tax exemption afforded by the local, state, or federal tax regulations." However, this approach would likely be vulnerable to legal challenge.

Another option is allowing urban agriculture only on property owned by the local government. While it limits the number of parcels where these uses can occur, this approach can accommodate commercial farming operations, because there would be no concern that the local government will reclassify parcels it owns as agricultural land. Finally, nonprofit farms such as community gardens, and gardening for individual or residential use are not covered by FRTFA and can be reasonably regulated.

Examples and more information:

- The Florida Right to Farm Act at **www.flsenate.gov/Laws/Statutes/2017/823.14**
- *City of Stuart, Florida Code of Ordinances* at **library.municode.com/fl/stuart/codes/code_of_ordinances**. See Sec. 2.06.08. - Urban agriculture.
- *City of West Palm Beach, Florida Code of Ordinances* at **library.municode.com/fl/west_palm_beach/codes/code_of_ordinances**. See Sec. 94-273. - Extra requirements for special uses or permitted uses, Subsections (11.1) 18 and (78).

More Resources

General

- Community Gardening Toolkit by the University of Missouri Extension at **extension.missouri.edu/explorepdf/miscpubs/mp0906.pdf**
- USDA Urban Agriculture Tool Kit at **www.usda.gov/sites/default/files/documents/urban-agriculture-toolkit.pdf**

Special Topics

- Pinellas Beekeepers Association at **pinellasbeekeepers.buzz**
- UF/IFAS resources for backyard chickens at **blogs.ifas.ufl.edu/pinellasco/2015/10/26/resources-for-backyard-chickens**
- Edible Peace Patch Project, promoting educational gardens in Pinellas County schools at **www.peacepatch.org**
- GreenRoof/Cistern Systems, Section 6.7 of the *Pinellas County Stormwater Manual* at **www.pinellascounty.org/plan/pdf_files/PC_Stormwater_Manual.pdf**

Local Education & Business Assistance

- UF/IFAS Master Gardener Program at **sfyl.ifas.ufl.edu/lawn-and-garden/master-gardener-program**
- Pinellas Technical College Food Systems Technology Center courses at **www.facebook.com/pinellastechnical/photos/ptc-news!-growing-healthy-food/2076598869252374/**
- The Florida Small Business Development Center, offering free business consulting and low-cost training to entrepreneurs at **sbdctampabay.com/pinellas**
- The USDA offers a number of loans directly to farmers, including a microloan program up to $50,000 for small and nontraditional farms, at **www.fsa.usda.gov/programs-and-services/farm-loan-programs**

Infographic References

1. *Pinellas Urban Agriculture Directory,* UF/IFAS Extension Pinellas County, at **sfyl.ifas.ufl.edu/pinellas/urban-agriculture** (shown next page)
2. Geographic information systems data (unpublished), Forward Pinellas, 2017
3. Been, Vicki, and Ioan Voicu. “The Effect of Community Gardens on Neighboring Property Values.” American Real Estate and Urban Economics Association, vol. 36, no. 2, 2006, pp. 241–283., doi:10.2139/ssrn.913356
4. “Obesity and Overweight.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 3 May 2017, at **www.cdc.gov/nchs/fastats/obesity-overweight.htm**
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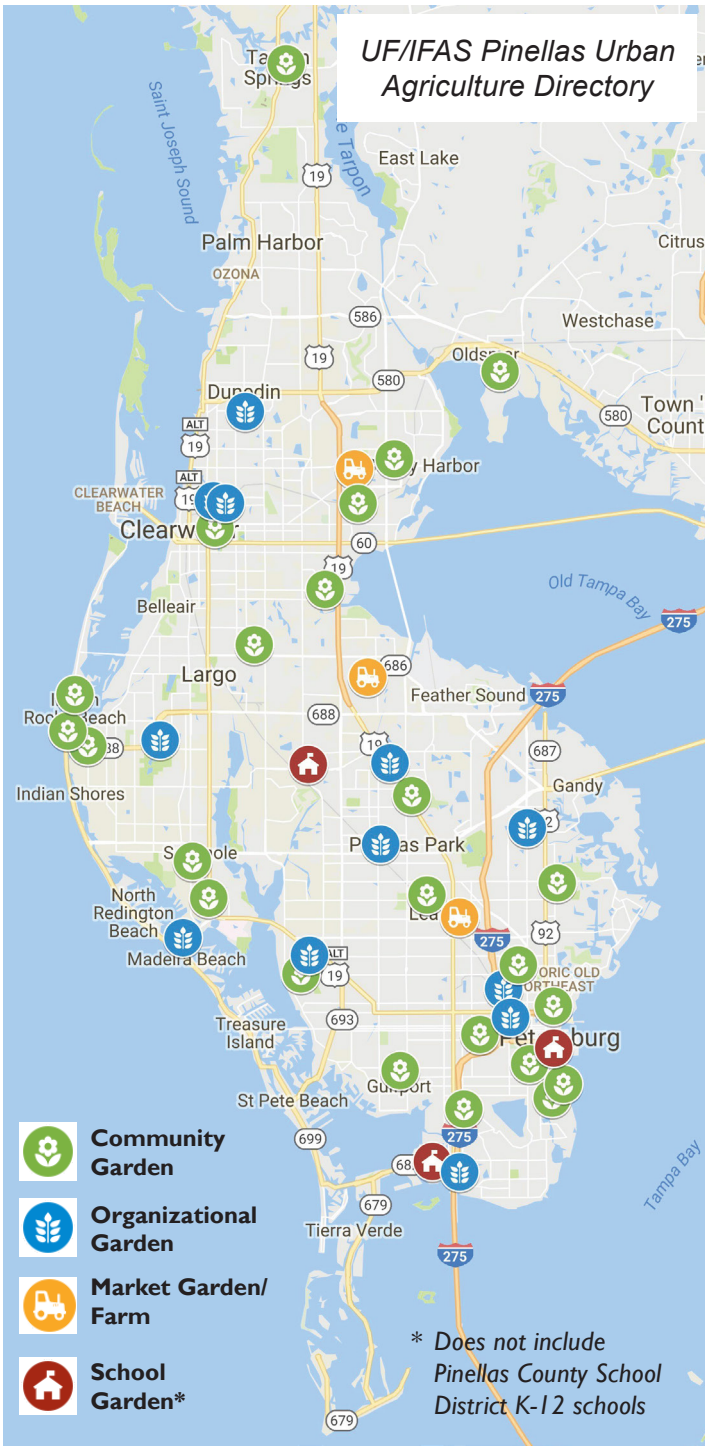
7. *U.S. Food System Fact Sheet,* University of Michigan Center for Sustainable Systems, at **css.umich.edu/sites/default/files/U.S._Food_System_Factsheet_CSS01-06_e2017.pdf**
8. Aleksandrowicz, Lukasz, et al. “The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health: A Systematic Review.” PLOS Medicine, Public Library of Science, at **journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0165797**



Next Steps

The Countywide Plan for Pinellas County guides land use planning among our 25 member local governments. Local land use and zoning regulations can be more restrictive than the Countywide Plan, but not less. The plan recognizes three types of agricultural land uses:

Agricultural Use – Crop production, including plant nurseries; raising livestock, including horse stables, dog kennels and animal boarding; veterinary clinics; and associated uses as permitted by local plans and regulations. Allowed in Residential Very Low, Residential Low Medium, Retail & Services, Employment, and Industrial categories, subject to acreage thresholds in some cases.

Agricultural Processing Use – The processing, preparation, packaging and distribution of agricultural commodities such as livestock or crop products. Allowed only in Industrial category.

Community Garden Use – A public or private open space use devoted to the growing of produce and/or horticultural plants for off-site sale, personal consumption, enjoyment and/or donation by a group of individuals or a non-profit organization. Occasional on-site sales of produce and horticultural products produced on-site are allowed at the discretion of the local government. Allowed (by name or as a subset of Agricultural Use) in all categories except Preservation.

We propose to leave the current definitions unchanged and add another:

Agricultural Use - Light – Public or private property devoted to the growing of produce and/or horticultural plants, small-animal husbandry, aquaculture, beekeeping, or related uses, where noise, odor, runoff, insects, pests, and other impacts are contained on-site and do not negatively affect adjacent land uses, consistent with such standards as may be prescribed by the local government with jurisdiction. This use may allow for some exterior storage of equipment or materials, and the incidental processing, preparation, packaging and distribution of non-livestock agricultural products. On-site sales of agricultural products produced on-site are allowed at the discretion of the local government. Allowed in all categories except Preservation.

The new language, which we propose to adopt later in 2018, will give each community more flexibility to allow agricultural uses, including supportive uses such as on-site sales, in locations it considers appropriate. For more information about the Countywide Plan, see **forwardpinellas.org/guiding-plans/countywide-plan**.

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