

# Urban Agriculture, Composting and Zoning

A zoning code model for promoting composting and organic waste diversion through sustainable urban agriculture



# Acknowledgments

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# Introduction

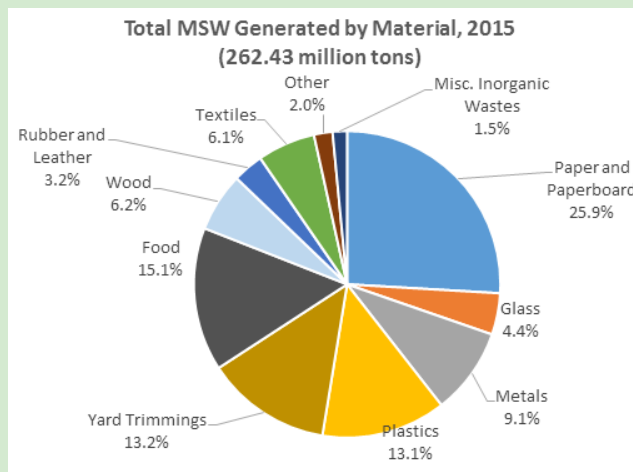
## Ohio EPA, Composting & Urban Agriculture

As an agency, Ohio EPA is responsible for the statewide management of solid waste disposal activities in a manner which protects the environment and human health. Composting offers a safe, simple and relatively low cost alternative for recycling organic waste materials that otherwise would have ended up in a landfill.

Nationwide, organic wastes such as food scraps and yard trimmings constitute about 28% of the solid waste sent to landfills. The percentage is very similar for Ohio. When the amount of organic waste generation is taken into consideration, there is great opportunity for significant waste reduction and a positive environmental impact. Composting food scraps not only prevents organic waste from entering landfills, but it also produces a useable product – compost – which can be a great resource for improving garden soils and increasing plant yields.

Community gardens, part of the overall urban agriculture movement, have seen explosive growth in popularity across the country over the past few years. This growth is credited to the many benefits gardens can offer to a community. In general, community gardens can provide:

- Increased access to fresher and healthier foods, thus improving food security, combatting food deserts and supporting healthy lifestyles.
- Promoting a stronger sense of community.
- Putting underused land lots into productive use.
- Promoting composting of organic waste, which reduces GHG emissions, reduces the need for petroleum-based fertilizers, and produces a nutrient-rich soil amendment.



The United States Environmental Protection Agency estimates that the nation generated approximately 39.7 million tons of food scraps in 2015 – that is over xxx pounds per person. Of that amount, only 5.3% – about 2.1 million tons – was composted. The remainder was sent to landfills where it accounted for 15.1% of the 262 million tons of solid waste landfilled that year.

In 2015, approximately 10 million tons of solid waste was generated in Ohio, of which approximately 1.5 million tons (15.1%) were food scraps. In the same year about 68,063 tons of food scraps were diverted to licensed composting facilities. Although composted food scraps represented only 0.7% of the total solid waste, it resulted in reduced emissions of about 49,000 metric tons of carbon dioxide equivalent. This reduction of greenhouse gas emissions is equivalent to removing 10,306 passenger vehicles from roadways, conserving over 5.5 million gallons of gasoline, or over 2 million propane tanks used for home barbeques. Imagine the benefits if all food scraps were diverted from landfills!

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Urban farms are a component of urban agriculture that create interest for their potential to foster economic development. While community gardens are mainly communal gardens where neighboring residents grow food for their own use or to share with others, urban farms are often commercial or entrepreneurial enterprises.

## Urban Agriculture as a Regulated Land Use

Ohio EPA makes a clear connection with active urban agriculture activities because they can significantly advance the Agency's organic waste diversion goals. Promoting composting in urban agriculture is a simple but significant step for fostering healthier, safer and more sustainable communities.

Urban agriculture is a very desirable activity, but the establishment and operation of these agricultural locations can be impacted by various local and state regulations. At the local level, zoning codes determine if urban agriculture is an allowable land use, and where it can be conducted. Zoning codes also specify various structural design requirements, such as building heights and setback distances for greenhouses, hoop-houses, composting bins, storage sheds and other structures. Requirements for operating hours, maintenance and governance are also common. Zoning codes may make a distinction between community gardens and urban farms, and specify different requirements for each.

In addition, zoning codes may regulate composting activities in community gardens and urban farms. While some codes explicitly allow composting and may set some requirements, others are not specific. Since composting also takes place in non-agricultural settings, what is allowed and which local codes and state regulations apply can be confusing.

## Regulation of Composting Activities

At the state level, composting is regulated as a solid waste disposal activity. The Ohio Revised Code (ORC) requires Ohio EPA to establish statewide administrative rules for the permitting and operation of facilities that compost solid waste, including the types of waste that can be composted and where compost may be utilized. Historically, accepting waste not generated on-site for composting is considered to be providing a commercial disposal service. This activity must be regulated under the composting facility regulations. Regulations have largely provided exemptions or exclusions to those composting waste generated on-site, such as a household doing backyard composting or farming operations. As sustainability efforts move forward, Ohio EPA considers a distinction between the historical intent of the regulations and what the community gardens and other interested groups are trying to achieve to meet community needs.

Ohio's revised composting regulations, effective on October 1, 2018, make it easier for households, community gardens and urban farms to compost

### Ohio EPA's Composting Exclusion (Rule 3745-560-001 (D)(2), Ohio Administrative Code)

This chapter shall not apply to the following:  
Any person composting yard waste, agricultural waste, animal waste, food scraps, bulking agents, and additives within an aggregate area not greater than five hundred square feet on any premises in a manner that noise, dust, and odors do not constitute a nuisance or health hazard and does not cause or contribute to surface or ground water pollution.

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materials from a variety of sources. Under a new regulatory exclusion, a community garden, or any person that composts in an aggregate area no larger than 500 square feet, and only accepts yard wastes, animal wastes, food scraps, bulking agents and additives, will not be subject to registration, licensing and other requirements of composting regulations. Furthermore, waste materials can be accepted from any source and the compost produced can be used in any location. In addition, the compost produced will not be subject to the testing requirements required for commercial composting facilities.

Community gardens and urban farms requiring larger areas for composting are required to comply with regulations. Those interested in composting food scraps must comply with the “Class II Composting Facility” requirements. Additional changes in the new rules have streamlined the authorization process, and reduced or eliminated some costs. These changes are intended to incentivize the start of small to medium urban farms, while maintaining the same protective requirements for public health and the environment expected from their larger counterparts. The administrative rules can be found in Chapter 3745-560 of the Ohio Administrative Code (OAC). Contact the Division of Materials and Waste Management of Ohio EPA at (614) 644-2621 for assistance determining applicability of composting regulations and registration as a Class II facility.



Montgomery County MetroParks hosts several gardens.  
Source: Lucille Beachdell

code language concerning community gardens and urban agriculture in general. By establishing local zoning codes governing urban agriculture, we can ensure plentiful locations exist for community gardens and urban farms to incorporate composting as a sustainable waste reduction and soil conservation strategy.

This document provides model code language meant to serve as a guide for planners, zoning officials, municipalities, community groups and all urban agriculture stakeholders in developing local zoning that encourages the establishment of community gardens and composting activities in compliance with related local land use and state environmental regulations. Ohio EPA developed this model language by reviewing publications, comparing existing zoning standards that address community gardens in Ohio and other cities throughout the nation, and obtaining input from community garden organizations, university extension agents, and planning and zoning officials. In the context of this document, urban farm activities would be considered commercial operations and could trigger additional regulatory considerations. Therefore,

## Purpose and Structure of this Document

While some Ohio cities have taken steps to promote urban agriculture, many Ohio jurisdictions do not specifically recognize community gardens and urban farms as a land use category. As awareness of this issue has risen over the past few years, several communities are considering, or already have updated

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these activities are not the focus of the model language. However, the language could still serve as a starting point for addressing urban farms.

The rest of this document is organized in three parts. The first part, *Code Incorporation Approach*, reviews the two common approaches used by municipalities that have incorporated community gardens and/or composting activities into their codes and explains the pros and cons of each approach.

The second part, *Sections in Model Zoning Code*, aims to introduce stakeholders, both familiar and unfamiliar with zoning code language development, to the sections of a zoning code necessary to address community gardens and composting activities. Having an understanding of the fundamental aspects of a zoning code should make for a smoother and quicker code amendment process. Because communities have different code structures and different goals, this part also explains why the code sections are necessary and what considerations must be taken when deciding which sections to include and drafting code language. Examples of existing codes are also provided to illustrate various approaches and options.

The third part, *Model Code Language*, presents the model language as it could appear in the zoning code. This model code language was crafted as a compilation of existing codes and components that those using these codes identified as planned amendments to improve their codes. Certainly, this model language may reflect unintended biases by the authors and collaborators, and should be considered as a good starting point for writing your own code.



Garden in residential lot in Cleveland.  
Source: Jim Thompson

# Code Incorporation Approach

## Incorporation into Zoning Codes

The two prevalent approaches to incorporating community gardens and composting in zoning codes are: establishing “urban agriculture zoning districts”, and listing community gardens (and urban farms) as one of the “defined use categories” allowed within existing zoning districts. A zoning district establishes the general categories of uses allowed in an area, such as residential, commercial, and manufacturing zones. A defined use category contains the specific requirements for conducting an activity on a parcel of land (i.e. farmers market, landfill, daycare facility, medical offices, etc.). These can then be allowed as a primary, accessory or conditional use within the zoning district. A “defined use category” is the most common approach used and was recommended in a review published by the Boston College Environmental Affairs Law Review. The model language suggested in this document is based on community gardens as a “defined use category” and as a “primary permitted use” within a zoning district.

Once community gardens are added as a defined use category, it needs to be listed in the desired zoning districts as a primary permitted use. Primary uses are automatically permitted as long as they meet standards established for the defined use. Alternatively, they can be listed as a conditional use. A conditional use is a use that can be allowed in a zoning district, but requires review or approval by the local planning commission or zoning board. Listing community gardens as a primary use is generally preferred because this reduces or eliminates reviews and hearings, and is more efficient. Community gardens can be listed as a primary use in some zoning districts and as conditional use in others.

The “urban agriculture zoning district” approach is used in some municipalities with equal success. The City of Cleveland’s urban gardens district is a good example. This approach requires parcels be rezoned, which entails proceeding through the entire rezoning process. While most communities consider this approach to be time consuming, others see it as a way to protect established community gardens and urban farms from proposed future land use changes and ensure their perpetuity.

This document also approaches composting activities as an “accessory use” to community gardens. Accessory uses are those customarily incidental to the primary permitted use. Zoning codes generally allow certain accessory uses and structures on a property as long as they relate to the primary permitted uses and are conducted on the same property. The purpose of accessory use provisions is to permit uses that are necessary, expected, or convenient in conjunction with a primary use. In this case, composting is necessary for the community garden to manage vegetative waste and make compost for use in the garden. Similarly, composting bins and piles will be considered accessory structures.



A hoop house in Stanard Farm, operated by the Board of Developmental Disabilities in Cleveland, Ohio  
Source: Nicole Wright

# Sections in Model Zoning Code

## Definitions

Definitions are standard practice in zoning regulations to ensure clear understanding of the code's intent. Below are suggested definitions for terms commonly appearing in urban agriculture codes:

**Community Garden:** An area of land managed and maintained by a group of individuals to grow and harvest food crops and/or non-food ornamental crops, such as flowers, for personal or group use, consumption, sale, or donation. Community gardens may be divided into separate plots for cultivation by one or more individuals or may be farmed collectively by members of the group and may include common areas maintained and used by group members.

**Hoop House:** A structure made of PVC piping or other material covered with translucent plastic, constructed in a "half-round" or "hoop" shape.

**Cold-Frame:** An unheated outdoor structure consisting of a wooden or concrete frame and a top made of glass or clear plastic, used for protecting seedlings and plants from the cold.

**Greenhouse:** A building made of glass, plastic or fiberglass in which plants are cultivated.

**Composting<sup>1</sup>:** Combining organic wastes (e.g., yard trimmings, food scraps, manures) in proper ratios into piles, rows, or vessels; adding moisture and bulking agents (e.g., wood chips) as necessary to accelerate the breakdown of organic materials; and allowing the finished material to fully stabilize and mature through a curing process.

**Compost<sup>2</sup>:** Organic material that can be used as a soil amendment or as a medium to grow plants.

The definitions for composting and compost suggested above are the definitions used by U.S.EPA. Ohio's

composting regulations have very similar definitions (see box below). This wording is more tailored toward operators of large scale commercial facilities. Using either set of definitions, combining them or making your own is appropriate. However it is strongly recommended that the definition of composting used conveys how the composting process is managed. Organic wastes will eventually compost if piled and left unattended, but this could lead to odors and vermin nuisances. It is important to convey that management of composting materials, such as turning the piles, is expected.

### Definitions in Ohio EPA's Composting Rules (Ohio Administrative Code Chapter 3745-560)

"Composting" means the process of biological decomposition of solid wastes under controlled conditions resulting in compost. Controlled conditions include but are not limited to grinding, shredding, chipping, mixing feedstocks, bulking agents and additives, piling, physical turning, aerating, adding moisture, performing procedures to achieve human pathogen reductions, or other processing of solid wastes.

"Compost" means a humus-like organic material resulting from the biological decomposition of solid waste.

<sup>1</sup> As defined by the US EPA: <http://www.epa.gov/osw/conserve/rrr/composting/basic.htm>

<sup>2</sup> As defined by the US EPA: <http://www.epa.gov/osw/conserve/rrr/composting/basic.htm>



# Sections in Model Zoning Code

## Establishment and Use Clauses

Establishment and use clauses commonly appear as general provisions at the beginning of the code. They can be used to specify the zoning districts where community gardening activities are allowed, establish applicability of other requirements in the zoning code, and establish additional requirements specific to the community gardens as a defined use category. Among requirements to consider as establishment or and use clauses are:

**Applicable Zoning Districts:** Used to specify if community gardens will be allowed to establish in all or only selected zoning districts. Most municipalities choose to allow community gardens in residential, commercial, and industrial areas, but restrict them in downtown development zones or other high density commercial areas. Another option is to list community gardens as a permitted use in some districts and as a conditional use in others where closer review is

### Example: Applicability Statement

#### Franklin County Zoning Resolution, section 115.064(a)

##### 115.64 – Establishment and Applicability

a) Community gardens are a permitted use in the following zones: residential, multifamily, commercial, mixed-use, open space, industrial, institutional and vacant land, subject to the following regulations.

### Example: Defined Listings Method

#### Cincinnati City Code, subsection .05 of any district

Use Classification	Use	Additional Regulations
Agriculture and Extractive Uses		
Community gardens	Permitted	See § 1419-41

desirable, or where land uses are expected to significantly change in the future, making community gardens incompatible.

**Statement of Compliance/Requirements:** This can be used to reiterate that regulations apply for all community gardens. This can be as simple as a statement that all community gardens must comply with all development and registration standards in the code.

**Other Requirements:** When necessary, this section can also be used to include optional requirements such as sales, maintenance or soil testing requirements. See “Additional Requirements” at the end of this section for discussion of common optional requirements.

## Development Standards

Development standards are the basis of any zoning code. They regulate physical characteristics of a site such as size, setbacks and height, and allow accessory uses and structures. Standards to consider include:

### Physical Standards:

**Setbacks:** Setback requirements may be established specifically for community gardens or they may be required to conform with those in place for the district where the community garden is located. Standards for setbacks generally range from 3 to 10 feet. Many require smaller setbacks in the back and side and a slightly larger setback in front, such as 3 feet from the back and side property lines and 10 feet from the front property line. Setbacks can be applied to structures, fencing, and specific activities like the gardening area.

**Maximum Height:** While this requirement is not absolutely necessary, it can be beneficial to include a height standard to ensure accessory buildings or structures do not exceed a reasonable height which

## Sections in Model Zoning Code

could interfere with the character of the surrounding uses. Certain structures such as hoop houses can be over 20 feet depending on their size. Existing height codes generally range from 15 to 25 feet or require conforming with the height standard for the zoning district in which the community garden is located.

**Size Restrictions:** The nature of community gardens often places the gardens in areas with natural size restrictions due to previous development or land value. However, it may be beneficial to set a size restriction to ensure that the neighborhood character is maintained. Most community gardens are less than one acre but some may be as large as four acres.

### **Accessory Uses and Structures:**

Municipalities vary widely in treatment of accessory buildings and structures. Typically, developing a secondary building, structure or equipment on a parcel requires permitting as an “accessory structure”. Many municipalities use other approaches to avoid this permitting step. For example, some have excluded buildings, structures or equipment from being considered as accessory structures by establishing a maximum square footage under which these will be considered an accessory use under the primary permitted use. Similarly, others limit the number of buildings and structures but not their size. Others include a list of buildings, structures and equipment that are considered acceptable accessory uses and which ones are prohibited.

Regardless of the approach chosen, it is strongly recommended that codes include a list of buildings, structures and equipment that are acceptable as accessory uses. This list should include structures such as benches, bike racks, cold frames, hoop houses, raised planting beds, composting and waste bins, picnic tables, garden art, rain barrel systems and children’s play areas.

Another approach found in the Franklin County zoning resolution is to declare the structures listed in the previous paragraph as “non-accessory structures” if they do not exceed a “reasonable size”. In this particular case, a ‘reasonable size’ is not defined to allow maximum flexibility for the planning commission to determine each instance on its own merit and adjacent uses. This allows for the inclusion of all “non-accessory structures” (as well as up to 65 feet of accessory buildings). The language for this approach can be found in section 115.066(b)(3) and 115.066(b)(4) of the Franklin County Code shown below.

#### Example: Accessory Structures Language

Franklin County Code, section 115.066(b)(3) and 115.066(b)(4) :

3) If the total area of structures used in conjunction with a community garden does not exceed 65 square feet, the structures are not considered accessory buildings. Otherwise, all structures used for community gardens are accessory building and must comply with SECTION 512 – ACCESSORY BUILDINGS.

4) No building or structures shall be permitted on the site except as permitted above. The following are not considered structures for the purpose of this section, provided they do not exceed a reasonable size: benches, bike racks, cold-frames, hoop houses, raised/accessible planting beds, compost or waste bins, picnic tables, garden art, rain barrel systems and children’s play areas.

**Fencing:** Most municipalities already have fencing regulations in their code. Refer to the existing code if possible. If the requirement is needed, the most common height limit is 6 feet tall, and allowance for 50% opacity.

*See the Cincinnati code section 1419-21(j) for an example of defined structures regulations.*

## Sections in Model Zoning Code



The Hampshire Road Community Garden in Cleveland Heights, Ohio, has a fence around it.

Source: Nicole Wright

**Signage:** Similar to fencing, most zoning codes already have extensive requirements for signage in their graphics code. Refer to the existing code if possible. Nearly all municipalities limit signage to a single (1), non-illuminated sign which does not exceed four (4) square-feet in area and is raised no more than six (6) feet from the ground.

**Parking:** Several existing codes do not address the topic of parking directly. It is advised that the requirements for community gardens are specified. When the users of the community garden reside within walking distance, parking needs may not be a pressing issue. However, the need to bring equipment and supplies to the garden might require parking space to be accessible. Parking is most commonly provided as on-street parking, but some codes allow a limited number of vehicles to park on the site (generally two). Some codes apply off-street parking codes for gardens over 15,000 square feet. This practice is more common for urban farms requiring access by employees,

*See the Cleveland code section 336.05(d) for an example of how to address parking.*

customers, distributors and others. The decision as to whether paved parking should be required would be an excellent opportunity to encourage environmentally-friendly parking practices such as permeable pavement and bike racks.

**Water:** All gardens need reliable access to water for their plants and it is important to ensure that the community gardens take measures to secure water access. Some parcels used for gardens can be connected to metered water lines. However, there are associated costs to consider regarding how community gardens can afford connection and subsequent water bills. In addition, utility codes may not allow a municipality to provide free water service to gardens, but may allow a property owner to install an auxiliary meter to an outside spigot and avoid paying sewer fees, as is the case in the City of Columbus. Collecting rain water in cisterns and rain barrels is a good affordable alternative. Gardeners must ensure mosquitoes are not able to breed in the water storage system to prevent health risks and nuisance complaints. Regardless of the chosen solution, it is important to require community gardens to have access to a source of water on-site in order to prevent any possibility of illegal water sources.

**Drainage:** Proper drainage is a primary concern of many property owners located near a community garden. Over-watering the garden may result in water pooling and slow drainage around a house's foundation. In addition, neighbors may be concerned about the excess water carrying traces of herbicides, pesticides and fertilizers that may have been used at a garden. Most community gardens use organic and sustainable agriculture methods, but that is not usually a requirement. The use of synthetic agricultural products is possible. While this clause does not need to be detailed, clarification is strongly recommended so that no water or chemicals drain off site onto other

## Sections in Model Zoning Code

properties. Some municipalities require drainage plans to strengthen this requirement. Local Soil and Water Conservation Districts are an excellent resource for help with drainage best management practices.

### Organizational Structure and Registration

Consideration should be given to the organizational structure for operating the gardens. It can be helpful to know how each individual garden will be operating and to have contact information. The zoning code can establish detailed operating requirements or include a general requirement for registering each garden. The information obtained through a registration can ensure compliance and enhance communication. Keep the registration process simple and ensure this requirement can be implemented with the existing staff resources. Specific organizational and registration requirements to consider include:

**Hours of Operation:** There are three approaches for addressing hours of operation. The municipality may specify times (e.g., 8:00 am to 7:00 pm) or base time on sunrise/sunset. A third option is to allow each garden to set hours (requiring approval) in their registration.

**Governance:** Many gardens operate under a board of elected individuals or appoint a head caretaker or coordinator. Others may have a very loose governing structure. By providing a basic description of the organizational structure, the zoning code can help enhance communication between the municipality and the community garden organization, and garden participants.

**Coordinator:** Regardless of the structure of the governance, there should be a designated coordinator to deal with administrative needs of the garden and serve as a contact person for the municipality. Assure



Healthy Plants workshop participants - one of the many benefits of having an active organization.

Source: Nicole Wright

that the coordinator's contact information is obtained.

**Maintenance:** This requirement establishes the need for determining who is responsible for maintenance of fencing and signage, general landscaping, equipment and associated costs.

**Plot Distribution Rules:** This requirement establishes how plots will be divided and assigned to participants. It also should specify how this will carry over from year to year. It is important to assure that plots are distributed in a fair manner.

**Information Home-Base:** This language specifies which municipal department will be managing information. Most manage it through their development/planning department and some use their health or other departments.

### Composting as Accessory Use

Composting is widely practiced in sustainable gardening and should be considered an accessory use.

## Sections in Model Zoning Code

Some municipalities have chosen to include specific requirements for composting in community gardens to ensure composting occurs in compliance with state requirements, and to address potential nuisances not covered by state composting regulations. This can be helpful for composting activities excluded from Ohio EPA's composting regulations. Some considerations include :

**Size:** Some codes impose size limitations on the area used for composting, commonly around 250 square feet. However Ohio's new composting regulations include an exemption for composting activities up to 300 square feet and new codes should attempt to be consistent with this size to avoid confusion.

**Siting:** Some codes require composting bins be located a certain distance from property lines. For example, Cincinnati requires composting activity to take place at least 3 feet from side lot lines, 10 feet from the front lot line, and a maximum of 25 feet from the back lot line.

**Material Restrictions:** Ohio's new exemption for facilities with a size of 300 square feet or less, allows

the acceptance of yard waste, animal waste, food scraps, bulking agents and additives from any source. All materials might not be advisable at all locations. For example, animal manure may not be an issue at a community garden in a mostly manufacturing district, but it could cause noticeable odor during delivery to a lot in a residential district. Consideration should be given to the need for restricting the use of certain wastes in specific areas or zoning districts.

**Other Requirements:** Other requirements of the Ohio EPA rules have made their way into local codes. Ohio EPA revises composting regulations every five years and some requirements may change. Be aware that zoning code will have to be reviewed to determine if changes are necessary.

### *Examples of composting requirements:*

*City of Dayton code section 150.420.1.5*

*City of Cincinnati code section 1419-41 (d)*



A 3-bin composting system in Montgomery County, Ohio.

Source: Lucille Beachdell

### Materials Definitions in Ohio EPA's Composting Rules (Ohio Administrative Code Chapter 3745-560)

"Agricultural waste" means plant material including but not limited to stems, leaves, vines, or roots from an agricultural operation.

"Animal waste" means animal excreta, bedding, wash waters, incidental waste feed, and silage drainage.

"Bulking agent" means a material added to a composting process to provide structural support, improve aeration, or absorb moisture and includes wood chips, straw, clean untreated wood, shredded newspaper, shredded cardboard, sawdust, shredded brush, compostable containers, and stover.

"Food scraps" means food residuals including but not limited to vegetables, fruits, grains, dairy products, meats, and the compostable packaging that may be commingled.

"Yard waste" means solid waste that includes only leaves, grass clippings, brush, garden waste, tree trunks, tree stumps, holiday trees, prunings from trees or shrubs, and vegetative waste resulting from the use of commercial products, including but not limited to discarded flowers, potted flowers, or grave blankets that do not include plastic, metal, styrofoam, or other non-biodegradable material. Yard waste does not include wastes from industrial processing, agricultural processing, or food processing.

# Sections in Model Zoning Code

## Additional Requirements

A code language should address any related activity that may take place at the gardens. This is especially important for activities that might be covered under other regulations such as the sale of processed or cottage goods.

**Sale of Items:** Most codes do not permit the sale of items on-site but will allow for sales of the produce offsite (local farmer's markets). Those that do allow on-site sales generally limit them to only produce grown on-site (no arts and crafts) and apply the same time and frequency requirements as applicable for yard sales. However, some codes exist which allow on-site sales; such sales are often subject to additional regulation regarding stand size, hours, parking and more.

*See Cleveland code section 337.25 (d) for requirements for produce sales in residential districts.*

**Special Maintenance Requirements:** There may be specific maintenance requirements, outside of general maintenance, which should be addressed. The most common special maintenance requirement is that all plants are cut down during non-growing months.

**Nuisance Statement:** The code should include a nuisance statement to serve as a catch-all for other concerns which may arise due to using land as a community garden. This is especially applicable to composting. Consult the city or county health department nuisance code to ensure language is consistent.

**Soil Testing:** Brownfields and empty residential lots in older sections of cities are popular locations for community gardens. Soils at non-remediated

brownfields may be of low quality due to prior industrial uses. Also, residential lot soils may be affected by excessive pesticide use, winter salt, atmospheric deposition and other unknown activities. It is important to have some knowledge about the area's soil to ensure plant growth. While full environmental assessments are required in some places, experts agree it is wise to perform soil testing before developing a community garden in an urban area. This can prevent the use of soil containing high levels of heavy metals or other contaminants. Such testing is currently required by Franklin County. This testing requirement can be waived if a garden is using exclusively raised beds. It is advisable to consult a soil expert to learn which metals to test in your area.

If requiring soil testing, it is important to consider which environmental standards will be used to determine acceptable soil for direct planting. The Voluntary Action Program, administered by Ohio EPA, specifies brownfield revitalization standards in Chapter 3745-300 of the Ohio Administrative Code, which are an appropriate option. Other standards applicable to agricultural practices can also be an alternative. The US EPA maintains a useful urban agriculture website – [www.epa.gov/brownfields/urbanag/](http://www.epa.gov/brownfields/urbanag/) - with links to additional brownfield revitalization programs across the country and funding sources to help with testing and revitalization efforts. In some existing codes that require testing, the presence of any heavy metals is considered to be unacceptable, so raised planting beds are required in those instances.

The Ohio State University Extension has a very useful factsheet on soil sampling and testing, including a list of soil testing laboratories. See the *References and Resources* section for additional information.

# Model Code Language

This section provides model zoning code language. Items with an asteric (\*) have alternative approaches to the one presented in this model code. Please review earlier sections for discussion on alternative approaches. Blank lines have been provided where specifications or references can be inserted.

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## Section ###.##– Community Gardens

(a) DEFINITIONS: This section refers to community gardens, hoop houses, cold-frames, greenhouses, composting and compost as defined in section \_\_\_\_\_ of this code.

(b) PERMITTED USES: A community garden shall be permitted in the following zones pursuant to all applicable conditions of section - \_\_\_\_\_ of this code:

1) Residential, Commercial, Industrial, Open Space, and \_\_\_\_\_.

(c) MAINTENANCE: At the end of the growing season – no later than December 1 of each year – all plant material must be cut to no more than 6 inches in height.

(d) DEVELOPMENT STANDARDS: Any community garden established under section \_\_\_\_\_ of this code must meet the following development standards:

1) SETBACKS: All structures and activities must be located at least \_\_\_ feet from any side property line, \_\_\_ feet from any back property line and \_\_\_ feet from any front property line.

2) MAXIMUM HEIGHT: No structure or building may exceed \_\_\_ feet in height.

3) AREA: A community garden may only operate on a parcel of less than \_\_\_ acre(s) in area.

4) FENCING: All fencing shall conform to the requirements set forth in section \_\_\_\_\_ of this code.

*Alternative when there is no existing or applicable fencing code:*

Fences shall not exceed \_\_\_ feet in height, shall be at least \_\_\_ percent open if they are taller than \_\_\_ feet, and shall be constructed of wood, chain link, ornamental metal, or \_\_\_\_\_. For any garden that is \_\_\_ square feet in area or greater, and is in a location that is subject to design review and approval by the \_\_\_ (City Planning Commission, Historic District Board), no fence shall be installed without review by the \_\_\_ (City Planning Commission, Historic District Board) to ensure that fences are compatible in appearance and placement with the character of nearby properties.

5) SIGNS: All signage shall conform to the requirements set forth in section \_\_\_\_\_ of this code.

*Alternative when there is no existing or applicable graphics or signage code:*

Only one (1) non-illuminated sign per access point, measuring no more than \_\_\_\_\_ square feet in total area and no more than \_\_\_ feet in height from the ground may be erected onsite.

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\*6) PARKING: No off-street parking shall be allowed except on parcels of greater than \_\_\_\_\_ square feet. In such a situation, only \_\_\_ space(s) per each additional \_\_\_ square feet above \_\_\_\_\_ square feet will be allowed.

7) WATER: The community garden shall have reliable and legal access to an onsite source of water. Use of water storage systems such as cisterns and rain barrels is allowed when in compliance with the accessory structures provisions of this code.

8) DRAINAGE: The community garden shall be operated in a manner which prevents the drainage of water or chemicals onto any neighboring property.

9) SOIL TESTING: Prior to development of a community garden, soils shall be tested to ensure the viability and safety of the location.

1) This requirement is waived when:

a) Soils have been remediated and/or demonstrated to meet the Ohio EPA's Voluntary Action Program direct-contact soil cleanup standards for residential land use in Chapter 3745-300 of the Ohio Administrative Code.

b) Raised beds are utilized on site for growing all crops for human consumption.

2) At a minimum, soil shall be tested for the following heavy metals: boron, arsenic, mercury, selenium, lead, cadmium, chromium, nickel, zinc and copper. Analytical test shall be conducted with methods and procedures suitable for soil media.

3) Suitable soil shall be defined as soil which meets the standards set forth in/by \_\_\_\_\_.

\*(e) ACCESSORY BUILDINGS: The following buildings and structures are permitted on the site seeing as they do not exceed \_\_\_\_\_ square feet in total area:

1) Green Houses.

2) Gardening Sheds.

3) Other enclosed buildings which are found to be reasonably related to the activities of community gardening.

\*(f) ACCESSORY STRUCTURES: The following structures are not considered buildings and may be erected on the site seeing as they do not exceed a reasonable size:

1) Benches.

2) Bike racks.

3) Cold-frames.

4) Hoop houses.



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- 5) Raised planting beds.
- 6) Composting, recycling and waste bins.
- 7) Picnic tables.
- 8) Garden art.
- 9) Rain barrel systems.
- 10) Children's play areas.
- 11) Other structures which are found to be reasonably related to the activities of community gardening and are not enclosed structures.

\*(g) HOURS: The community garden shall only operate from the hours of \_\_\_\_ AM until \_\_\_\_ PM.

(h) REGISTRATION: Prior to development and operation, all community gardens must complete a registration to be filed with \_\_\_\_\_, which contains the following information:

- 1) Governing structure.
- 2) Coordinator and contact information.
- 3) Plot distribution rules.
- 4) Parcel owner and contact information.
- 5) \_\_\_\_\_

(i) COMPOSTING: Composting may occur on-site pursuant to Ohio Environmental Protection Agency chapter 3745-560 of the Ohio Administration Code and the following standards:

- 1) No compost pile or total composting area may exceed 300 square feet in size without obtaining the required authorizations from the Ohio Environmental Protection Agency.
- 2) Any compost pile must be placed at least \_\_\_\_ feet from \_\_\_\_ (any, front, rear, side) property line.
- 3) Unless generated at the community garden location, the following materials shall not be accepted from off-site sources for composting in areas zoned \_\_\_\_ : \_\_\_\_ (animal manures, food scraps).
- 4) Composting areas and structures must be maintained in a manner that protects adjacent properties from nuisance odors and the attraction of rodents or other pests.

\*(j) SALE: No produce may be sold or distributed on site.

(k) NUISANCE: The community garden and all related activities shall not be operated in any manner which may constitute a nuisance under section \_\_\_\_\_ of this code

## References and Resources

American Community Garden Association. <http://www.communitygarden.org/>

Brown, K. H. and Jameton, A.L., (2000). Public Health Implications of Urban Agriculture, *Journal of Public Health Policy*, 21 (1), pp. 20-39.

City of Cincinnati, Ohio, (2010). Zoning Code, Section 1419-41 (Community Garden). Municode. Retrieved May 2, 2011, from: <http://library.municode.com/index.aspx?clientId=19996&stateId=35&stateName=Ohio>

City of Cleveland, Ohio, (2007). Codified Ordinances, Chapter #336. FindLaw: Cases and Codes. Retrieved May 2, 2011, from: [http://caselaw.lp.findlaw.com/clevelandcodes/cco\\_part3\\_336.html](http://caselaw.lp.findlaw.com/clevelandcodes/cco_part3_336.html)

City of Cleveland, Ohio, (2010). Codified Ordinances, Chapter #337. FindLaw: Cases and Codes. Retrieved May 4, 2011, from: [http://caselaw.lp.findlaw.com/clevelandcodes/cco\\_part3\\_337.html](http://caselaw.lp.findlaw.com/clevelandcodes/cco_part3_337.html)

City of Columbus, Ohio, (2011). Relevant code and policy explained for community gardens. Retrieved February 16, 2012, from: [http://columbus.gov/uploadedFiles/Area\\_of\\_Interest/Get\\_Green/Get\\_Involved/Garden%20code%20guide.pdf](http://columbus.gov/uploadedFiles/Area_of_Interest/Get_Green/Get_Involved/Garden%20code%20guide.pdf)

City of Dayton, Ohio, (2010). Zoning Code Section 150.565.12.5 (Community Garden). Retrieved May 4, 2011, from: [www.cityofdayton.org/departments/pcd/planning/Documents/ZoningCode.pdf](http://www.cityofdayton.org/departments/pcd/planning/Documents/ZoningCode.pdf)

City of Dayton, Ohio, (2010). Zoning Code Section 150.420.1.5 (Composting). Retrieved May 4, 2011, from: [www.cityofdayton.org/departments/pcd/planning/Documents/ZoningCode.pdf](http://www.cityofdayton.org/departments/pcd/planning/Documents/ZoningCode.pdf)

Franklin County, Ohio. (2010) Zoning Resolution Chapter 115.06 (Community Gardens). Retrieved May 2, 2011, from: [www.franklincountyohio.gov/commissioners/edp/zoning/ZoningResolutionUpdated6.9.10.pdf](http://www.franklincountyohio.gov/commissioners/edp/zoning/ZoningResolutionUpdated6.9.10.pdf)

Gao, G., Boggs, J. and Chatfield, J., (2009). Soil Testing Is an Excellent Investment for Garden, Lawn, and Landscape Plants, and Commercial Crops. Factsheet HYG-1132-09. The Ohio State University Extension. Retrieved June 8, 2012 from: <http://ohioline.osu.edu/hyg-fact/1000/pdf/1132.pdf>

Mukherji, N., and Morales, A. (March 2010). Practice: Urban Agriculture. American Planning Association, *Zoning Practice*, 3.

## References and Resources

Ohio Environmental Protection Agency, Division of Materials and Waste Management. (2012). Composting Regulations. Ohio Administrative Code, Chapter 3745-560.

Public Health Law and Policy. (2011). National Policy and Legal Analysis Network To Prevent Childhood Obesity. Seeding the City: Land Use Policies to Promote Urban Agriculture. Accessed January 27, 2012, from <http://www.phlpnet.org/childhood-obesity/products/urban-ag-toolkit>

Public Health Law and Policy. (2011). National Policy and Legal Analysis Network To Prevent Childhood Obesity. Ground Rules: A Legal Toolkit for Community Gardens. Accessed January 27, 2012, from <http://www.nplanonline.org/nplan/products/CommunityGardenToolkit>

San Francisco Public Utilities Commission (2011). Urban Agriculture and Community Gardens Website. <http://sfwater.org/index.aspx?page=469>

United States Environmental Protection Agency, (March 2011). Basic Information about Food Waste. Retrieved May 9, 2011, from: <http://www.epa.gov/osw/conserves/materials/organics/food/fd-basic.htm>

United States Environmental Protection Agency, (March 2011). Basic Information Composting. Retrieved May 9, 2011, from: <http://www.epa.gov/osw/conserves/rrr/composting/basic.htm>

United States Environmental Protection Agency. (2010). Waste Reduction Model. [http://www.epa.gov/climatechange/wyacd/waste/calculators/Warm\\_home.html](http://www.epa.gov/climatechange/wyacd/waste/calculators/Warm_home.html)

United States Environmental Protection Agency, (October 2011). Urban Agriculture & Improving Local, Sustainable Food Systems. Retrieved February 16, 2012 from: <http://www.epa.gov/brownfields/urbanag/>

Voigt, K.A. (2011). Learning From Disaster: Lessons for the Future From the Gulf of Mexico: Note: Pigs in the Backyard or the Barnyard: Removing Zoning Impediments to Urban Agriculture. Boston College Environmental Affairs Law Review, 38 (537).

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