CAMBRIDGE

# URBAN AGRICULTURE

A guide to beekeeping, henkeeping, community gardening & more in the city.

June 2025



Cambridge Public Health Department

CAMBRIDGE CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
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# ACKNOWLEDGMENTS


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# INTRODUCTION



This *Cambridge Guide to Urban Agriculture* will be updated as new zoning amendments and health regulations are adopted.

This version includes all you need to know about getting a permit for beekeeping and henkeeping, and also features urban agriculture currently practiced in Cambridge.

As new regulations are put in place, this guide will keep you up to date on how to responsibly practice other kinds of urban agriculture in the city.

City dwellers throughout the world have always grown their own food. In the United States urban gardening surged during World War II, when Americans planted 12 million Victory Gardens in cities and 6 million on farms. But many were abandoned after the war. For much of the past 60 years, Americans have kept a sharp division between urban and rural, city and farm, consumers and growers.

Until recently, that is.

In the past couple decades, urban agriculture worldwide has exploded, along with urban populations. Today, 800 million people grow food in cities, producing an estimated 15% to 20% of the world's food supply and feeding a quarter of the world's urban population. North American cities are now catching on to the urban-ag renaissance that cities in Europe, Asia, Africa, and Latin America have been experiencing for some time now.

Urban agriculture can take many forms:

- From an individual resident, family, or group of neighbors gardening on a rooftop, balcony, yard, or community plot;
- To keepers of bees, chickens, fish, rabbits, and other small city-friendly livestock;
- To commercial farmers who grow in greenhouses, hydroponic houses, shipping containers, "small plot intensives," and other creative spaces.

In 2013, the City of Cambridge formed a task force that asked community members if they wanted more agriculture in the city. They definitely

# INTRODUCTION *[Continued]*

did. Neighboring Somerville and Boston had adopted urban agriculture zoning revisions several years before. You can read the *Health Lens Analysis of Urban Agriculture Policy, Cambridge, Massachusetts*, to learn more about the conversations the task force and the Metropolitan Area Planning Council had with neighborhood residents, farmers, bee and hen keepers here: www.cambridgema.gov/CDD/Projects/Planning/urbanagriculturetaskforce

In December 2017, the Cambridge City Council approved its first urban-agriculture zoning amendment, specifically making beekeeping legal in the city. The Commissioner of Public Health developed beekeeping regulations and a permit process to protect the safety and health of all the city's inhabitants: including the bees.

The city's zoning ordinance was amended in November 2023 to make henkeeping legal in Cambridge as well.

The Urban Agriculture Initiative encourages Cambridge residents to keep cultivating food in Cambridge. The work of the initiative is ongoing and is still looking for ways to bring more commercial farming, rooftop and vertical gardening, henkeeping, and other agricultural practices into the city. In the long term, the initiative seeks to:

- Expand economic opportunities in agriculture;
- Promote sustainability, community resiliency, and ecological stewardship;
- Give residents access to healthy, locally produced food;
- Keep the city safe and healthy for all;
- Increase public understanding of agriculture; and
- Prevent potential conflicts between agricultural and other urban land uses.

For more information on the Cambridge Urban Agriculture Initiative, visit: www.cambridgema.gov/CDD/Projects/Planning/urbanagriculturetaskforce.



# HOW TO KEEP BEES IN CAMBRIDGE

# BEEKEEPING OVERVIEW



Urban beekeeping is on the rise, for many reasons. Most important, honeybees produce delicious honey, with delicate flavors from whatever's blooming—blueberries, black locust, spring fruit trees, summer wildflowers. Some connoisseurs compare the diversity in taste to that found in wines. Growing demand for local honey and wax also provides entrepreneurial opportunities for city dwellers.

Beehives in urban areas consistently produce more honey and also survive the winter at higher rates than hives in the nearby countryside, according to researchers in several cities, including Boston. As pollinator populations have declined worldwide, especially in North America and Europe, cities are increasingly seen as sanctuaries for honeybees.

Bees are critical for pollinating the plants in our ecosystem—our gardens, wildlife habitat, and more than 100 fruit and vegetable crops grown in our country. About one-third of the U.S. diet comes from insect-pollinated plants, and honeybees are responsible for 80% of that pollination.

Plus, bee behavior is endlessly fascinating. Bees give us a close-up connection to the natural world. To do well, beekeeping requires a commitment to year-round care and constant learning, which is best done in the company of fellow beekeepers. The Middlesex County Beekeepers Association (www.middlesexbeekeepers.org) and the Massachusetts Beekeepers Association (www.massbee.org) are great places to learn more.

Honeybees are busy, well-organized workers, and unlike yellow jackets and wasps, rarely sting. As more people keep bees in urban and suburban settings, there is potential for misunderstandings, but there is also an opportunity for better education, and conversations and cooperation among neighbors.

# LAWS & REGULATIONS

In December 2017, the City of Cambridge passed a zoning amendment that allows beekeeping as a land use. At the same time, the city passed public health regulations for setting up and maintaining hives safely and requiring a permit to keep bees in the city.

If you've been keeping bees for a while and are just learning about the regulations, you are required to obtain a permit from the public health department.

We encourage Cambridge residents to practice urban agriculture, and the public health department welcomes your questions and wants to work with you to help you continue safely and responsibly.

These guidelines are a mix of local laws and best practices, based on advice from local beekeepers associations and state regulations.

| ICON | WHO TO CONTACT? |
|---|---|
|  | Contact the **Cambridge Public Health Department** if you have questions about getting a permit, how to set up hives on your property and care for your bees, how to come into compliance, or how to make a complaint about a neighbor's beehive. 617-665-3826 / beekeeping@challiance.org. |
|  | Contact the **Cambridge Inspectional Services Department** if you have questions about where beehives are allowed in the city, the dimensions of your hives or retail honey sales. 617-349-6100 / www.cambridgema.gov/inspection/contactforms/inspectionalservices. |
|  | Contact the **Massachusetts Department of Agricultural Resources Apiary Program** to request an inspection of your hives and equipment to ensure they are disease free, or to register your hives so you can get up-to-date information about threats to bees—both are free and voluntary. 617-626-1801 / bees@state.ma.us / www.mass.gov/apiary-program-honey-bees. |
|  | The Cambridge Public Health Department has adopted as part of its regulation the **Massachusetts Beekeepers Association Best Management Practices**, which you can find here: www.mass.gov/regulations/330-CMR-800-apiary-inspection-regulations. See www.massbee.org for information about the association. |

# BEEKEEPING GUIDELINES

## OBTAINING YOUR BEES

- Beekeepers clubs and associations will often order nucs and packages for members. They can also provide lists of reputable sellers and tips on buying hardy Northern, disease-free bees. See www.middlesexbeekeepers.org or www.massbee.org.
- Take a class and meet other beekeepers at a club or association. This is the best way to get started. Beekeeping is not easy to learn from books or Internet sources.
- To transport bees to or from your property, make sure hives are closed up at night. Secure the entrance with a screen, and strap hives down to avoid tipping. Avoid transporting hives at midday, especially in warm months.
- The Cambridge Public Health Department recommends registering your hive within 10 days of getting your bees, to help you stay up to date on emerging threats to bees and other notifications. Register using this Massachusetts Department of Agricultural Resources online form: www.mass.gov/forms/apiary-and-colony-registration-form. Registration is voluntary.
- The Cambridge Public Health Department also recommends that you request a voluntary inspection from the Massachusetts Department of Agricultural Resources to certify that your bees and equipment are disease free. To request an inspection, use this online form: www.mass.gov/forms/mdar-apiary-inspection-request-form.
- Beekeepers must comply with the Massachusetts Department of Agricultural Resources Apiary Program regulations, which can be found at www.mass.gov/regulations/330-CMR-800-apiary-inspection-regulations. You may find more general information about the Apiary Program and frequently asked questions on this website: www.mass.gov/apiary-program-honey-bees.

# BEEKEEPING GUIDELINES *[Continued]*

## PROVIDING A PLACE FOR YOUR BEES

- In order to keep bees in the city, you must obtain an annually renewable permit from the Cambridge Public Health Department at www.cambridgepublichealth.org/beekeeping.
- You are allowed to keep up to two beehives of the common domestic honeybee, Apis mellifera, per lot.
- As a general guideline, two colonies need about one-quarter acre. Nucs (smaller bee colonies, usually five frames or less) and hives located on rooftops need less space.
- If you need to add an additional hive in order to rescue a swarm or divide a bee colony, contact the Cambridge Public Health Department at 617-665-3826. The department may grant you permission to keep up to two additional hives, for a maximum of four, for 20 days or less.
- Beekeeping is allowed in all zones in the City of Cambridge.
- The maximum volume of each hive is 20 cubic feet, for example, 5x2x2 feet. If you have an observation hive attached to a building, no more than 20 cubic feet of the hive can extend away from the exterior wall.
- The maximum height of each hive is 6 feet, not including stands or other elevation. If you have any questions, please contact City Inspectional Services at 617-349-6100.
- Raise hives at least 5 inches off the ground. Enclose the raised area to keep out pests, using standard industry methods such as rodent guards or hardware cloth. In the fall, rodents may seek warmth in your hives. Before installing rodent guards, check to make sure no rodents have already taken up residence inside.
- All hives must be labeled with the owner's name and contact information.
- Locate each hive at least 5 feet away from any property line. Hives may be closer if a solid fence or wall separates them from abutting property.
- You may place your hive on a porch, balcony, deck, or rooftop, as long as it meets all other public health

# BEEKEEPING GUIDELINES *[Continued]*

requirements regarding placement. An elevated hive must be kept at least 6 feet from any edge, unless there is a protective barrier such as a railing, fence, or wall.

- Face your hives away from any doors or access points, unless you have installed a flyway barrier. If used, barriers must be placed within 3 feet of the hive entrance, extend at least 1 foot higher than the beehive, and at least 2 feet on either side of the beehive.
- Place a weight, such as a concrete paver, on the hive to prevent blowing over, especially if it is elevated.
- Movable frame hives, called Langstroth hives, with adequate space will help prevent overcrowding and swarming. Some beekeepers prefer top-bar hives.
- Avoid placing your hives in low-lying areas that can trap moisture.

## MANAGING FLYWAYS

- You must place the hive entrance so that the bees' flyway (the route they take to and from the hive) does not face any of the following:

  + Entry doors, windows that can open, decks, porches, balconies, or other outdoor living spaces within 10 feet of the hive;

  + The access point to a shared porch, balcony, or rooftop, within 5 feet of your hive;

  + Another housing unit on the same lot, unless the occupant gives permission; and

  + A public street, park, school grounds, walkway, or bikeway within 10 feet of the hive.
- A beehive flyway barrier—such as a solid fence, wall, or thick hedges or shrubs—may be used to direct bees to fly upward as they exit the hive before dispersing. Such barriers must be placed within 3 feet of the hive entrance, extend at least 1 foot higher than the beehive, and at least 2 feet on either side of the beehive.
- Place a sign announcing a beehive is present, if your hive is within 10 feet of a public street, park, school grounds, walkway, or bikeway. The sign should be easy to read from the public way.

# BEEKEEPING GUIDELINES *[Continued]*

- If your hive is on a shared porch, balcony, or rooftop, place a sign at the entrance to the area.
- If possible, after you've taken all these surroundings and requirements into consideration, try to locate hives facing east or south so the sunrise warms them in the morning. Avoid facing hives north to protect from winter weather, and avoid anyplace where the hives are in shade for most of the day.

## CARING FOR YOUR BEES

- Refresh water for your bees daily to prevent stagnation and mosquito breeding.
- Make sure your bees always have access to water on your property, including on the roof or balcony, especially in hot weather. Bees need large amounts of water to control temperature and humidity within the hive. They prefer getting their water in sunny places with surface moisture, such as wet sand or gravel or the edge of a birdbath. Provide access to water on your own property to prevent your bees from congregating around pools, drinking fountains, hot tubs, or other water on neighboring properties.
- Cultivate constantly blooming flowers on your own property to provide nectar for your bees and keep them close to home.
- When removing honey supers for extraction, cover frames with a towel or heavy cloth to prevent robbing behavior. Do not extract honey outside or anywhere accessible to bees.
- You will need to check your hives periodically, depending on the time of year and conditions. Open the hive as quickly as possible, with minimal disturbance to the bees. Warm, sunny days with little wind are best. Be mindful of your neighbors' activities in choosing a time to check your bees.
- Avoid mixing hive equipment or using second-hand equipment, especially boxes, frames, and combs. The risk of disease far outweighs any cost savings.
- If your bees seem unusually defensive—stinging without

# BEEKEEPING GUIDELINES *[Continued]*

provocation—check for evidence of skunks and lay down chicken wire in front of the hive entrance.

- Avoid using any pesticides around your hives, especially neonicotinoid pesticides, which are associated with harm to bees and are persistent environmental pollutants. If you must use a pesticide, check the label carefully for safety around bees.
- Educate yourself about honeybee diseases and pests—such as parasitic Varroa mites, Nosema, and American foulbrood (AFB)—so that you can identify their signs. You can find more information on the U.S. Department of Agriculture website, www.ars.usda.gov/is/np/honeybeediseases/honeybeediseases.pdf.

## MANAGING PESTS

- Promptly clean and put away any materials you use for beekeeping or honey, which may attract pests or honey-robbing behavior by other bees.
- Clean any spilled honey or syrup immediately, and do not leave out in exposed containers.
- Raise beehives at least 5 inches off the ground. Enclose the raised area to keep out pests, using standard industry methods such as purchased rodent guards or hardware cloth. In the fall, rodents may seek warmth in your hives. Before installing rodent guards, check to make sure no rodents have already taken up residence inside.
- Monitor your hives regularly for Varroa mites and take preventive actions. If you discover a Varroa mite infestation, treat it promptly. You can learn more about Varroa mite prevention and treatment at the Honeybee Health Coalition website, honeybeehealthcoalition.org/resources/varroa-management.

## OBTAINING A VARIANCE

- If you have a lot configuration or existing hives that do not comply with the new regulation, you may request a public hearing for a variance when you apply for your permit. The Cambridge Public Health Department encourages residents to practice urban agriculture and wants to work

# BEEKEEPING GUIDELINES *[Continued]*

with you to help you continue safely and responsibly. For questions, call 617-665-3826.

## SELLING HONEY

- You do not need a permit to sell unprocessed raw honey.
- Selling processed honey products—honey that is filtered or extracted by heat, or foods with honey as an ingredient—requires a retail food handler permit from the Cambridge Inspectional Service Department. Contact 617-349-6100 or go to www.cambridgema.gov/inspection/contactforms/inspectionalservices.

## BEING A GOOD NEIGHBOR

- The Cambridge Public Health Department recommends talking to your neighbors when you're first thinking about keeping bees. Listen to their concerns, and try to resolve issues yourself. Show them your plan, and demonstrate that you will be a responsible beekeeper.
- Be aware of your neighbors' activities in choosing a time to open your hives to check your bees. Open the hive quickly, and disturb the bees as little as possible. Warm, sunny days with little wind are best.
- Tell your neighbors about normal bee behavior they may notice, and explain that in almost all circumstances honeybees have docile temperaments. For example:

***Orientation flights.*** In warm weather, new forager bees come out of their hive for an orientation flight, to get their bearings before they go out to gather nectar. A hundred bees at a time may fly within 30 feet around the hive for 10 minutes or so. This is natural to all hives and no cause for alarm.

***Bearding.*** If the hive gets too hot, especially in summer, the bees may congregate in a big bunch at the entrance, which looks like a beard. This is a natural way for the bees to cool off the interior.

# BEEKEEPING GUIDELINES *[Continued]*

***Swarming.*** In the spring, the queen bee may leave the hive with half or more of the worker bees to start a new colony. While the scout bees are searching for a spot to relocate, thousands of bees may cling together in a large football-size clump close to their original hive and alight on trees or other structures.

This may look alarming, but it is normal, nonthreatening behavior and a sign that the hive is strong. The bees are generally very focused on their task and not aggressive unless provoked.

If your bees form a swarm on neighboring property, ask permission of the owner or manager before collecting the swarm. The Middlesex Beekeeping Association can help gather a swarm. Contact: www.middlesexbeekeepers.org.

# GETTING A PERMIT

## APPLICATION

Once you have your plans, apply for an annual beekeeping permit here: www.cambridgepublichealth.org/beekeeping.

## PAYMENT

To pay your permit fee payment, please pay by card within your online Open Gov application or mail a check to:

Cambridge Public Health Department
119 Windsor Street, 2nd Floor
Cambridge, MA 02139

## THEN WHAT?

During the review of your application, the public health department will inspect your property. There will also be one annual routine inspection and others as needed following complaints, violations, changes, or any other safety or health concerns.

## PERMIT MODIFICATIONS AND TRANSFERABILITY

After a permit to keep Bees has been issued, modifications may be made to a plan or structure so long as said modifications are in compliance with all applicable federal, state and local laws, rules and regulations including, but not limited to, the Cambridge Zoning Ordinance and this Regulation. Beekeepers shall notify the Department or its designee(s) of any major changes to the Apiary or Apiaries or daily caretaking operations.

Any permit to keep Bees may only be transferred to a new Beekeeper if the following items are submitted to the Department in advance of the transfer:

1. Written notice from the existing Beekeeper that includes their intent to transfer the permit and the name and contact information of the intended Beekeeper to which the permit will be transferred.

# GETTING A PERMIT *[Continued]*

2. The proposed date in which the transfer of Beekeeper responsibility will take place.
3. An updated statement and contingency plan signed by the Beekeeper to which the permit will be transferred.

If a lot that houses an Apiary is sold or transferred to a new Property Owner, the Beekeeper shall immediately provide written notification of the same to the Department.

If the Property Owner of a lot changes, a copy of the Property Owner's written consent to Beekeeping on their property shall be provided to the Department should the new owner agree to continue Beekeeping on the property.

## RENEWAL

Permits expire on **October 15** of each year. Submit a renewal application with a $25 fee by September 15.



# HOW TO KEEP HENS IN CAMBRIDGE

# HENKEEPING OVERVIEW



Raising hens for eggs is a rewarding way to provide high-quality protein for your family. You will be able to see and taste the difference between fresh eggs from your own hens and commercial eggs, which may be months old.

Hens can also be both a lot of fun and funny. Many people who raise farm animals say their favorite animal to keep is chickens—including one local avian veterinarian we talked to, who told us she likes their sass! Hens definitely have their own personalities and ideas, as well as pecking hierarchies among themselves. If you feed them treats such as vegetable and fruit scraps, they'll come running to you. Some may hunker down to be picked up and petted.

Hens require daily attention to their food, water, space, temperature control, protection, and hygiene, similar to other pets. And they can create sanitation and noise issues in a city, where people and other animals live close together. Like all animals, they may contract and spread diseases.

The City of Cambridge has adopted several regulations to allow residents to keep hens safely and to protect the health of the community. Whether you're new to chicken raising or an old hand, here's what you need to know. These guidelines are a mix of local and state laws and best practices.

# LAWS & REGULATIONS

The City of Cambridge has adopted a zoning amendment and, starting in 2024, public health regulations that allow henkeeping in the city.

If you've been keeping chickens for a while and are just learning about the new regulations, we strongly recommend that you come into compliance with the regulations as soon as possible, for your own health and safety as well as those around you, and to ensure your right to continue henkeeping.

We encourage Cambridge residents to practice urban agriculture, and the public health department welcomes your questions and is prepared to work with you to help you raise food in the city safely and responsibly. If you have any questions, please contact the Cambridge Public Health Department, 617-665-3800, support@cambridgepublichealth.zendesk.com.

## OVERVIEW

In summary, the Cambridge regulations specify:

- A maximum of six adult hens
- A maximum of six non-laying replacement chicks
- No roosters
- Size and setback regulations for a coop and run
- Required plans to manage manure and pests
- An annual permit

# HENKEEPING GUIDELINES

## OBTAINING YOUR HENS

Adult hens may come only from a flock that has a certificate of testing for salmonella pullorum-typhoid issued by the Massachusetts Department of Agricultural Resources (MDAR). Keep this certification and receipts with the name and address of buyer and seller, date of purchase, and number and type of birds purchased.

To find a source to buy hens, check the list of Massachusetts hatcheries and poultry dealers that participate in the National Poultry Improvement Plan.

You can order chicks from local farm stores, breeders, or online, typically in the spring. If you order online, you'll get instructions on picking up your day-old chicks at the post office. Chicks are less expensive than adult hens but also require more care and equipment.

Only domestic breeds of the species Gallus gallus domesticus are allowed and only females, no roosters. Raising other poultry is not allowed in the city.

Choose breeds that are winter-hardy, friendly, and reliable layers. Some tried-and-true breeds for New England include the Rhode Island Red, Plymouth or Barred Rock, Wyandotte, Buff Orpington, and breeds known as Easter Eggers (Americana, Auraucana, and Ameracauna) for their blue eggs. Bantam hens, which are smaller, can also be a good choice, but they are harder to sex, increasing the likelihood you'll get a rooster.

It may seem fun to get a showy breed such as a Polish Gold or a Frizzle. But they may not be as hardy nor lay as many eggs, and they may be bullied by larger hens.

# HENKEEPING GUIDELINES *[Continued]*

## PROVIDING A PLACE FOR YOUR HENS

For chicks, you'll need an indoor space to incubate them with a heat lamp or brooder plate, where they can be safe from children and other pets. A closet or utility room can be a good choice. You'll need a brooder box, bedding such as wood shavings, and chick-sized food and water containers.

For hens, you'll need to provide a coop or henhouse where hens can lay eggs and that keeps them safe at night and in bad weather. They also need a fully enclosed outdoor run for fresh air and sunlight.

Before you make any purchases, you must submit a drawing of your plans in your permit application. It's also a good idea to reach out to your neighbors and let them know of your plans.

**The coop.** The maximum size for a coop is 8 by 6 feet, with a height no taller than 8 feet. The coop must have a minimum of 2 square feet per hen. For example, the smallest coop allowed for 6 hens is 12 square feet, or roughly 3 by 4 feet. The coop must be elevated at least 8 inches above ground level.

The coop should be designed and made of a material that can be easily cleaned and sanitized, such as fiberglass reinforced plastic. The roof or a wall may be removable to allow you to get inside. The coop needs to be well ventilated yet protect the hens from wind, rain, snow, hail, extreme cold and heat, pests, and predators.

Make sure the roof, walls, and doors lay flush. Use wire hardware cloth to cover any gaps in order to prevent rodents and other pests from entering.

Cambridge requires a minimum of one nesting box per three hens, located out of direct sunlight. Put soft shavings or other material to protect the egg when the hen squats and drops the egg in the nesting box. Straw is not ideal because hens tend to scratch and kick it out of the box.

Provide perches for nighttime roosting, which also helps protect your hens from pests.

Label the coop with the owner's name and phone number.

**The outdoor run.** The run must provide a minimum of 4 square feet per hen and cannot occupy more than 25% of the rear yard. The maximum height is 8 feet. For example, the smallest run allowed for 6

# HENKEEPING GUIDELINES *[Continued]*

hens is 24 square feet, or roughly 4 by 6 feet.

The run should be made of a sturdy frame, preferably wood. Cover the top and all sides with wire mesh, such as hardware cloth, to protect your hens from predators and contact with wild waterfowl, and to prevent escape.

The run can be attached to the coop or stand alone.

**Location.** The coop and the run must be set back at least 5 feet from any property line. They must also be at least 15 feet from habitable structures on adjacent properties, unless you obtain written permission from the neighboring owners.

You may not locate your coop or run in the front yard or a side yard that abuts a street. Any portion of the coop or run visible from the street must be screened by a fence or landscape barrier at least 4 feet high.

The coop and the run must be located at least 100 feet from any wetland or public drinking supply. In all cases, make sure no runoff will drain beyond your property line.

## CARING FOR YOUR CHICKS

Until their feathers have grown in at about six weeks old and the outside daytime temperature is reliably at least 70 degrees, chicks need to be kept warm and dry indoors.

You'll need a heat lamp to keep them at about 95 degrees their first week and to decrease the temperature as they grow.

Supply fresh room-temperature water daily, and consider adding vitamin supplements to it. Prevent drowning by using the correct size waterer, and adjust the height as the chicks grow. Make sure they can't perch on the waterer and contaminate it with their feces.

Keep chicks on a chick starter and grower feed until they start laying. Learn the pros and cons of medicated feeds that prevent coccidiosis and unmedicated feeds.

Check on them often, ideally every few hours.

# HENKEEPING GUIDELINES *[Continued]*

## CARING FOR YOUR HENS

**Feed and water.** Set up feed and water stations big enough so all the birds can eat and drink at the same time. There are numerous creative poultry feeders and waterers you can buy. Or you may devise your own system.

Feed and water should be out of direct sunlight. The best place is usually inside the coop.

Provide fresh potable water daily, both for the hens' health and to prevent mosquito breeding. Keeping water at the birds' shoulder height helps them drink comfortably and minimizes spills and contamination.

Purchase nutritionally balanced feed appropriate for the age and type of chickens at farm, garden, feed, and grain stores or online. Store the feed inside the coop or another structure in rodent- and weather-proof containers.

Supplement the hens' diet with grit, which is small pebbles that help them digest food, and calcium to help make strong eggshells.

You may also feed your hens fresh or cooked vegetables, fruit, and other plant-based scraps in moderation. They'll come running to you for these treats, a good way to build trust with them. Check a reliable source to learn which foods are safe. Some foods, such as potato peels and avocado skins and pits, are toxic to chickens.

Chickens are not allowed on any public land. You may give adult hens free range to forage on your property, as long as they are supervised, your entire yard is fenced, and all residents and owners who have access to the property give their consent. Be aware that getting hens to return to their enclosed run may prove difficult. Some chicken owners no longer allow free ranging, especially in wetter seasons, due to the risk of contracting avian flu.

**Managing manure.** You must submit a Manure Management Plan with your permit application and receive approval from the Cambridge Public Health Department.

Litter and manure management is one of the most important parts of keeping your chickens healthy and determining how you set up your coop and run.

Cover the floor of the coop with a dry, absorbent litter such as wood shavings. Remove any wet areas or manure, which

# HENKEEPING GUIDELINES *[Continued]*

can create respiratory problems for your hens, at least every two weeks. Completely change it only every six to twelve months, in order to maintain a healthy microbial environment.

When disposing of litter and manure in the trash, use a separate trash bag and keep it indoors secure from pests until trash day. Cambridge Curbside Compost green bins are ***for food waste only***.

**Managing pests.** You must submit a Pest Management Plan with your permit application and receive approval from the Cambridge Health Department.

Recommended materials in your plan include 19-gauge hardware cloth or other material with gaps of no more than ½ inch, buried into dirt, overlapping, or running under the coop floor.

Store feed indoors in secure moisture-proof containers, and promptly remove any spilled or leftover feed so it is not accessible to pests, especially after dusk and before dawn.

Keep the coop and run free of trash, debris, rotting food, and stagnant water.

If you need to use insecticides, rodenticides, or traps, check the label for safety around poultry.

## PROTECTING YOUR OWN & YOUR HENS' HEALTH

Like all animals, including humans, chickens are susceptible to diseases and health issues, and there are many ways diseases can be spread. Learn the symptoms of sickness in your birds, such as coughing, sneezing, decreased food intake or egg production, swollen heads, and sudden death. Two of the highest concerns to public health are salmonella and avian flu, also known as highly pathogenic avian influenza, or HPAI.

**Avian Flu.** The Massachusetts Department of Agricultural Resources (MDAR) offers free diagnostic testing for avian flu. The correct age of testing for chickens is 16 weeks of age. Contact the Poultry Program Coordinator in MDAR's Division of Animal Health. As of August 2024, that individual is Megan.Megrath@mass.gov, 617-626-1798.

The most important protection from avian flu is to prevent contact between your hens and any wild waterbirds, such as ducks, geese, swans, seagulls, and other shorebirds by keeping your hens

# HENKEEPING GUIDELINES *[Continued]*

in a fully enclosed coop and run. Chase away any waterfowl that enter your yard. Common backyard birds, such as cardinals, robins, sparrows, blue jays, crows, and pigeons, do not typically carry bird flu viruses. Do not allow your hens access to any water, ponds, or streams that wild birds can access.

Change clothes before entering poultry areas and before leaving your property. Consider dedicating a pair of coveralls, boots, and a hat or bandanna that you use only for hen care.

Consider using disposable boot covers or disinfectant footbaths. Remove any manure or dirt first.

Disinfect crates used to transport your birds or any tools or equipment that has come in contact with birds or manure, especially before moving those items to another location.

If your hens leave your flock and return, or you add new hens, isolate them for at least 10 and up to 60 days.

**Salmonella Prevention.** A critical protection for both yourself and your hens is to wash your hands thoroughly with soap and water before and after caring for and handling your hens or their eggs. If using hand sanitizer, be sure to remove any manure, dirt, or feathers first.

If you also have a garden, do not handle your hens and eggs and then handle fresh produce. Pick your garden produce first, then collect eggs and care for your hens, and finish by washing your hands. Keep your chickens out of your garden. Always wash your garden produce.

Children under 5 and people with compromised immune systems should not care for hens because of their increased risk of salmonella infection.

Minimize who handles and cares for your hens, including family and friends. Keep visitors to a minimum. Don't allow others who keep poultry to come into your coop or pen to prevent diseases that can be carried on clothing. Make sure everyone who has contact with your flock knows biosecurity principles.

Control for rodents, flies, and other insects, which can all spread salmonella and other diseases.

**Medications and First Aid.** Vaccines, antibiotics, and prescription medicine may be provided only by a licensed veterinarian. Your veterinarian may authorize you to administer them.

# HENKEEPING GUIDELINES *[Continued]*

The American Association of Avian Veterinarian has a Find a Vet page.

Consider treating your flock with vitamins and probiotics, which increase healthy bacteria in hens' gastrointestinal tract and minimize infectious organisms.

Purchase or assemble a poultry first aid kit, including items such as gauze pads, vet tape, styptic powder, antiseptic ointment, antimicrobial wound-care spray, and over-the-counter first aid products for poultry.

Report sick birds promptly to the state Department of Agricultural Resources Division of Animal Health at 617-626-1795 or online. You may also call the U.S. Department of Agriculture at 866-536-7593.

Learn more about biosecurity with free tools and resources from the MDAR Biosecurity page or USDA's Defend the Flock education program.

Domestic dogs and cats, owls, hawks, coyotes, foxes, weasels, raccoons, and even rats can injure or kill hens separated from their flock. If your hen has escaped, call Cambridge Animal Control at 617-349-4376 with its last known location and your permit number.

## TREATING YOUR HENS HUMANELY

Treat your birds with gentleness and respect for their contributions to your household. A happy, healthy hen lays more eggs.

Make sure that you and anyone coming in contact with your hens complies with state animal-cruelty laws, which can be found here. Cruelty to animals should be reported to the Massachusetts Society for the Prevention of Cruelty to Animals; 617-522-6008 or 800-628-5808.

# HENKEEPING GUIDELINES *[Continued]*

## REHOMING, CULLING, AND CREMATING

Your permit application requires a written plan for your hens if you need to move, cannot keep the hens, or are in violation of regulations. It also includes an agreement not to surrender hens to Cambridge Animal Control. Your plan may include selling or giving them to specific individuals or organizations, such as farms, shelters, or animal dealers.

If you plan to cull older chickens for personal consumption, consult the Cambridge Public Health Department about your slaughtering method, which must be in a safe, sanitary, and approved manner under state regulations.

If a chicken dies, contact your veterinarian, if you have one. Even vets who do not treat chickens can advise you on cremation, disposal, and burial services.

Help prevent the spread of avian flu or other diseases by reporting dead birds to the Massachusetts Department of Agriculture at 617-626-1795 or online.

If you discover you have a rooster, you can find individuals who will take them such as Massachusetts Rooster Rehoming and Rooster Rehoming-MA.

## HANDLING AND SELLING EGGS

Collect eggs at least twice a day, morning and evening.

Clean eggs do not need to be washed. If eggs are dirty, use water at least 10°F warmer than the egg, and keep it moving across the shell. Otherwise, bacteria may be pulled through the shell into the egg. You can also use an egg wash or sanitizer.

Farm-fresh eggs may be sold or given away. Familiarize yourself with state laws regarding egg sales.

Keep eggs in a refrigerator between 33°F and 45°F to prevent bacterial growth.

Eggs for sale must be clean and unbroken. Pack them in clean unused cartons labeled with your name, address, and phone number, a description of what is in the carton, and the date packed.

It is important to review the Egg Guidance and Regulation page of the federal Food and Drug Administration for up-to-date guidance on food safety and labeling.

# HENKEEPING GUIDELINES *[Continued]*

Sale of cooked or processed egg products requires a retail food permit from the City of Cambridge Inspectional Services Department.

## BEING A GOOD NEIGHBOR

When you're first considering keeping chickens, always start by talking to your neighbors and showing them your plan. Demonstrate that you intend to be a responsible hen owner. Listen to their concerns, and try to resolve issues yourself.

Send all adjacent lot owners a letter notifying them of your plans and include documentation of your letters in your permit application.

Offering extra eggs or composted manure for their gardens may be a good way to get neighbors' buy-in.

Make sure there is no odor or noise from your chickens at your property border, and no unsanitary conditions or public health nuisance anywhere on your property.

Make sure no runoff can drain beyond your property line.

If issues arise after you start your flock, you may want to:

1. Build or plant barriers that will block sight and noise.
2. Make structural changes to your coop or run to reduce noise.
3. Reduce daylight in your coop so hens are quieter in the early morning.
4. Change how you're managing your manure.

If a complaint is made or a violation is discovered, the public health department may:

1. Revoke your permit.
2. Require you to immediately relocate your hens at your expense.
3. Issue a penalty of $25 for a first offense, which will increase with additional offenses and days in violation.

# HENKEEPING GUIDELINES *[Continued]*

## LEARNING MORE ABOUT HENKEEPING

Agricultural skills such as henkeeping are best learned from other people who have them. A few resources:

- The American Poultry Association has a list of poultry clubs. You can also find numerous New England poultry groups on social media sites such as Facebook.
- Kaycie McCarthy, director of Equine and Farm Animal Outreach at Nevins Farm in Methuen, offers periodic classes, online resources with videos, and consultations. Send photos to equineoutreach@mspca.org or call 617-689-2917.
- The American Association of Avian Veterinarians offers online care sheets for poultry and other bird owners.
- The Massachusetts Chapter of the Northeast Organic Farming Association offers courses, newsletters, and a website with resources for people practicing agriculture, including poultry raising.
- Andrew Samuelson is the poultry specialist at UMass Extension, asamuelson@umass.edu. Meg Riley at the Plymouth County Extension Service has also offered to be a resource to Cambridge residents, MRiley@plymouthcountyma.gov.
- While there's a wealth of information online, a reliable resource book such as *The Small-Scale Poultry Flock* by Harvey Ussery, can be a good investment.

# GETTING A PERMIT

## APPLICATION

Once you have your plans, you're ready to apply for an annual permit online here.

If you have a lot configuration or an existing flock that does not comply with the new regulation, you may request a public hearing for a variance when you apply for your permit. The Cambridge Public Health Department encourages residents to practice urban agriculture and wants to work with you to help you continue your henkeeping safely and responsibly. For questions, call 617-665-3826.

## PAYMENT

When your application is complete, submit it with a payment of $50 by cash or check to:

Cambridge Public Health Department
119 Windsor Street, 2nd Floor
Cambridge, MA 02139
Voice: 617-665-3826
Fax: 617-665-3888

## THEN WHAT?

The public health department will send a notice of your permit hearing date by certified letter to you and to all neighbors within 300 feet. It's a good idea to call or talk to neighbors first. The applicant and neighbors may attend the permit hearing.

During the review of your application, the public health department will inspect your property. There will also be one annual routine inspection and others as needed following complaints, violations, changes, or any other safety or health concerns.

## NO TRANSFERS

Once you receive a permit, you may not transfer it to anyone else. If the property is sold or transferred, or the hen-keeping plans are changed in any way, a new permit must be issued.

## RENEWAL

Permits expire on April 30 of each year. Submit renewal applications with a $25 fee by March 31.

# Cracking the Myths on Eggshell Colors

*Have you ever wondered how eggshells can come in so many colors?*

The answer is simple: genetics. A hen's breed determines the color of the eggs she lays. For example, Leghorns lay white eggs, Rhode Island Reds produce brown ones, and Araucanas are famous for their pretty blue shells. The color comes from natural pigments added during the formation of the eggs.

- Protoporphyrin IX (from hemoglobin): creates brown shells
- Biliverdin (from bile): creates blue shells
- No pigment: leaves an eggshell white

All eggs start with a white shell made of calcium carbonate. Pigments are deposited at different stages as the egg travels through the hen's oviduct.

In blue eggs the pigment is incorporated early, so the shell is blue all the way through. In brown eggs the pigment is added later in the process and coats only the outer surface. If you crack open a brown egg, you'll see the inside is white.

Some breeds like Olive Eggers produce eggs decorated with both pigments. Their eggs layer blue and brown to create an olive green shell.

Does shell color affect the nutrition of the egg? Not at all. The real differences in egg nutrition come from the hen's diet and environment. Chickens that eat a diverse natural diet (such as those that are allowed to forage for greens, seeds, and insects) often lay eggs with more omega-3s, vitamin A, and vitamin E. So when choosing eggs, don't be swayed by the shell color. It's what's inside that really counts.



# Eggs: Nutrient Powerhouses, Demystified!

*Eggs are nutrient powerhouses!*

One large egg provides 70 calories, 6 grams of protein, and 3 grams of unsaturated fat which includes omega-3 fatty acids.

Eggs are a complete source of protein, containing all the essential amino acids our bodies need. Did you know that almost half of the protein content of one egg is in the yolk? For the total nutritional benefits, the whole egg is a great choice.

For many years, eggs were seen as foods to limit due to cholesterol. Recently, research has shown that dietary cholesterol from eggs does not impact cholesterol levels in our bodies. According to the American Heart Association, an average healthy individual can consume up to seven eggs per week.

In addition to protein, eggs are rich in micronutrients like vitamin A, vitamin D, and choline.

Choline is a nutrient that is not found in large quantities in most foods, except eggs at 169mg per egg (40% the RDA for women, and 30% the RDA for men). Choline plays a large role in early brain development both during pregnancy and in early childhood years. Research has shown that choline can improve cognitive function in adulthood.

Like Choline, vitamin D is another nutrient that can be difficult to find in foods naturally. One large egg, however, contains about 50 IUs of vitamin D (8% of the RDA for adults). Vitamin D has many roles in the human body, from immune health support, to strengthening bones, to even boosting energy and mood.

Vitamin A can be found in foods with a red/orange pigment. In eggs, particularly the yolks, a form of vitamin A found in high quantities is lutein, a carotenoid that plays a big role in eye health. Adequate lutein has been associated with improving vision performance as well as reducing age-related macular degeneration.



Citations



# A COMMUNITY THAT LOVES GROWING ITS OWN FOOD

Food has always been grown all over the City of Cambridge—even though it is the 26th most densely populated city in the country, with more than 16,000 people per square mile.

Every public elementary and middle school in the city has a teaching garden for growing vegetables, flowers, and herbs.

Residents grow food and flowers on 14 community garden plots in every corner of the city.

There is even a collective permaculture farm in East Cambridge called Hurley Street Farm (pictured), where everyone is welcome to work and share in the food produced.

And of course, individual households—whether families whose love of gardening goes back generations and who have never missed a season, or immigrants bringing growing skills from their home countries, or young people learning to garden for their first time—have always grown food in backyards and front borders; climbing up fences; or in containers or beds on balconies and rooftops.



# COMMUNITY STORIES: Cambridge Community Gardens



For nearly half a century, hundreds of neighbors throughout Cambridge have cultivated their own tomatoes, lettuces, roses, zinnias, basil, parsley, and all kinds of other plants in community garden plots. Today 550 residents tend plots in 14 community gardens in the city, managed under the Department of Public Works.

The gardens are just as diverse in style, size, and structure as the city itself, and they have put down their roots in every part of Cambridge. A few examples:

Next to Fresh Pond, residents of Neville Manor nursing home can look out their windows or walk among the 10-by-10-foot raised beds of Maher Park Garden, which was built on a former gravel yard. When one gardener could no longer bend down to her plot, the city raised her bed to waist level.

> "Community gardeners just have a level of such kindness."

More perennials than edibles fill Cambridge's oldest community garden on Sacramento Street, which started in 1975 near Harvard Square. Many of the gardeners there have tended their plots for years or decades. "Having a garden plot to look forward to and tend year to year is an inspiration and motivator for gardeners young and old," observes Jen Letourneau, Director, Conservation Commission, who manages the community garden program for the city.

Neighbors share everything, rather than keeping individual plots, at the small communal Emily Garden in Cambridgeport. Gardeners take turns with the work, rather than being tied down by daily watering, weeding, and harvesting.

When neighbors were having trouble getting to the top of the waiting list for the Costa Lopez Taylor Garden in East Cambridge, the community gardeners already there invited them to join in, by making space for extra pots of tomatoes and other container vegetables.

Waiting lists used to be more than two years, but with new plots being added, the wait is only about a year now, Letourneau says. Members at each of the 14 gardens decide on their own rules, but there are a few general guidelines. The city provides free unmetered water. Herbicides and pesticides are not permitted. Low-nitrogen

# Community Gardens

high-phosphorous fertilizers may be used but not left on site.

Gardens are left unlocked so all the city's residents can enjoy the lush plantings. One of the most important rules: Only pick what you plant.

Letourneau still remembers when her own daughter was a toddler, a community gardener offered her a little tomato to try. "It was her first tomato, and to this day she loves them. I love the image of my daughter sitting in the dirt, seeing it, smelling it, and then tasting it. Community gardeners just have a level of such kindness."

To sign up for a garden space, click on "Submit an application" here: www.cambridgema.gov/iwantto/applyforacommunitygardenplot.



# COMMUNITY STORIES: CitySprouts

Every child should have a garden to learn from and play in. That's why every public elementary and middle school in Cambridge has its own garden for children. Some are small courtyard plots. One is a roof garden. Others are large, fenced-in gardens with sheds stuffed with garden tools, raised beds, hoop houses, and colorful murals. At one garden, a little sign reads, "The hum of bees is the voice of the garden."



In 2001, parents, teachers, and the principal started the first garden at the Haggerty School. They wanted children to learn hands-on where their food comes from and about their natural environment. Some children had never dug in the dirt or seen roots before. Some had never realized a seed can grow into a vegetable you can eat.

Today Cambridge is a leader in a nationwide garden-education movement, thanks to CitySprouts, a nonprofit that provides garden educators for both Cambridge and Boston public schools. In 2015, director Jane Hirschi published *Ripe for Change: Garden-Based Learning in Schools* about this educational model.

Each school has a part-time garden educator who works with teachers on how to take their curricula out into the garden. Science students can observe and record the entire life cycle of a plant. Geography students map where foods come from, then make dishes like eggplant tacos, Ethiopian collards, their own creative pizzas, and a big favorite, vegetable sushi. Art students come to the garden to sketch and paint. English students learn new vocabulary.

In the spring, parents join students for afternoon garden parties, with lemonade and vegetable snacks. Guests can pick a sample to try from the garden or even do a little gardening.

> "My goal was to make new friends and learn [how to make] one full meal. Both were accomplished."

Middle schoolers can join an after-school club or a six-week intensive gardening program in July and August. Summer campers take care of the gardens, harvest and cook their own lunches, learn about science, climate and food justice, while earning a stipend. More than 80% of kids

# CitySprouts

in the program report they tried a new vegetable, liked it, and cooked it at home for their families.

When asked what kids should know about climate change, one garden student replied this way: “Almost everyone loves chocolate or chili sauce…Well, it’s a problem then, because due to climate change, the areas growing the food will be affected by things like rising sea levels.” Another student reported on the program: “My goal was to make new friends and learn [how to make] one full meal. Both were accomplished.”

To learn more about CitySprouts, go to www.citysprouts.org. To apply for the summer youth program, contact middleschoolprogram@citysprouts.org.



# COMMUNITY STORIES: Hurley Street Farm

Hurley Street Farm is not a big farm, just 3,000 square feet. But it has had a big impact on East Cambridge since its start in spring 2017 by the sustainability organization Green Cambridge. Each six-month growing season, more than 100 neighbors work at the farm. Everyone who comes can take tomatoes, lettuce, berries, squash, whatever is growing at the time. "You weed. You feed," as one member says.




Unlike a community garden plot managed by one household, Hurley Street Farm operates as a collective. With a $100,000 operating budget raised by donations of all sizes, a core group of volunteers decides what, where, and how the farm grows food. Then a crew of five to seven drops in for three weekly work sessions to prepare beds, plant, landscape, water, weed, harvest, and do all the other necessary tasks to bring the farm to life.

> "Our goal is to build climate resilience by building community connections & showing what's possible with our land and the resources we have right here."

Visitors enter the farm through the breezeway of a purple house at 213 Hurley Street, then walk under a 100-year-old grapevine. Twenty years ago, the owners built the house right on the sidewalk to avoid disturbing those heirloom Concord grapes.

A picnic table for snacks and workshops, a kit greenhouse for seedlings in a back corner, and raised beds of imported dirt laid out at angles all invite meandering.

"The first thing we did was determine where to get water, which was a challenge with the house at the front of the lot," says Steven Nutter, executive director of Green Cambridge. Rainwater is collected by gutters from the house roof, then cleverly directed through slightly downward sloping white pipes along the fence line, to tanks that hold 1,200 gallons at the back of the property. From there, the water can be slowly released down a gentle slope during dry summer months till it's sucked up by swales filled with tree prunings back near the house.

"A farm with a lot of houses on it " is how Nutter likes to think of his adopted city. "Cambridge gets 200 days of sunshine

# Hurley Street Farm

each year, 49 inches of rain, and has 4,500 acres of space. How can we use those things to feed ourselves and have better relationships with our natural systems? Our goal is to build climate resilience by building community connections and showing what's possible with our land and the resources we have right here."

To learn more, go to www.greencambridge.org/growtogether. To find out what's happening at the farm right now, go to www.facebook.com/GreenCambridge. Visitors are welcome during scheduled work hours or by appointment: 617-453-8364.



# APPENDICES

- How-To: Beekeeping Permitting & Checklist
- How-To: Henkeeping Permitting & Checklist
- Resources and Citations

# HOW-TO: BEEKEEPING PERMITTING

## APPLICATION

Once you have your plan to keep bees in place, you can apply for an annual beekeeping permit and review the permit information through our website at www.cambridgepublichealth.org/beekeeping/.

The permit application requirements include:

- Name and contact information
- Location of the property
- A scale-drawing (hand-drawn or electronic) that shows:
  - + The size of the lot;
  - + The proposed Beehive location(s) and dimensions;
  - + The number of Beehives;
  - + The location of existing structures on the lot, including fences and the distance of Beehive(s) from existing structures on the lot and from all adjacent lots; and
  - + The placement of any additional Beehive structures including entrances, Flight Area, Beehive Flyway, and Beehive Flyway Barriers if utilized.
- Consent from property owner(s)
- Written description of the beehive's construction and pest management practices
- Written contingency plan and beekeeper responsibility agreement
- Detailed site sketch
- Annual site inspection

## PAYMENT

When your application is complete, submit it with a payment of $50 via credit card, or mail a check to: Cambridge Public Health Department, 119 Windsor St, 2nd Floor, Cambridge, MA 02139.

## THEN WHAT?

The public health department will review your application. Once it has been approved, an inspection will be scheduled to ensure your property and beekeeping setup is in compliance with the regulations. *(See inspections checklist listed below.)* There will be one annual routine inspection for each permit renewal in the future, and others if needed should any complaints, violations, changes, or other safety or health concerns arise.

Once the initial inspection has been completed and the requirements have been passed, the inspection report will be made available on your online application and the permit will be approved. A copy of your permit can be downloaded from your application.

## TRANSFERS

Once you receive a beekeeping permit, a transfer of the permit and hive ownership may only be completed if the following items are sent to the Department in advance:

- Written notice from the existing Beekeeper that includes their intent to transfer the permit and the name and contact information of the intended Beekeeper to which the permit will be transferred;

- The proposed date in which the transfer of Beekeeper responsibility will take place
- An updated statement and contingency plan signed by the Beekeeper to which the permit will be transferred

If the property that houses an Apiary is sold or transferred, or the beekeeping plans are changed in any way, notify the public health department in writing.

### RENEWAL

Permits expire annually on April 30th of each year. A renewal application must be submitted through our online application system with the renewal fee of $25.

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## BEEKEEPING INSPECTIONS CHECKLIST

- ☐ Lot has no more than 2 beehives
- ☐ Ground-level beehives are constructed at least 5 inches off the ground
- ☐ Beehives use industry standard methods to exclude pests
- ☐ Beehives are marked with the beekeeper's name and contact information
- ☐ Beehive flyway appropriately positioned
- ☐ Where provided, beehive flyway barrier is appropriately positioned
- ☐ Apiary is located at least 5 feet from any property line, unless a solid fence or wall separates the Apiary from an abutting property
- ☐ Honey spills and beehive by-products are removed regularly from the beehive to exclude pests
- ☐ Bees have daily access to fresh potable water
- ☐ Fresh water is provided for the bees and emptied/ refilled on a constant basis
- ☐ Beekeepers are compliant with the Zoning Ordinance Article 23.40 et seq.
- ☐ A copy of any variance granted by the Department is on file with the permit holder

# HOW-TO: HENKEEPING PERMITTING

## APPLICATION

Once you have your plan to keep hens in place, you can apply for an annual henkeeping permit and review the permit information through our website at www.cambridgepublichealth.org/henkeeping/.

The permit application requirements include:

- Name and contact information
- The proposed number of hens to be kept
- Description of the nature of your henkeeping setup (Intended purpose; Personal background in henkeeping; whether or not you plan to sell eggs)
- Drawing or diagram of the lot as proposed (hand-drawn or digital) including:
    + The size of the lot;
    + The proposed location and dimensions of any Henhouse and Hen Run;
    + The location of existing structures on the lot, including fences and the distance of the Henhouse and Hen Run from existing structures on the lot and from all adjacent lots;
    + The proposed location of feed storage, and if relevant, water storage
- Description of the hen house and hun run structures
- Manure and pest management plans
- Agreement to the care and maintenance requirements of hens
- Signed consent of the property owner
- Documentation that abutters have been notified of intent to keep hens

## PAYMENT

When your application is complete, submit it with a payment of $50 via credit card, or mail a check to: Cambridge Public Health Department, 119 Windsor St, 2nd Floor, Cambridge, MA 02139.

## THEN WHAT?

The public health department will review your application. Once it has been approved, an inspection will be scheduled to ensure your property and henkeeping setup is in compliance with the regulations. (See inspections checklist listed below.) There will be one annual routine inspection for each permit renewal in the future, and others if needed should any complaints, violations, changes, or other safety or health concerns arise. If significant changes are made to your henkeeping structures or setup, notify the public health department in writing and re-upload your site sketch to reflect these changes.

Once the initial inspection has been completed and the requirements have been passed, the inspection report will be made available on your online application and the permit will be approved. A copy of your permit can be downloaded from your application.

## NO TRANSFERS

Once you receive a henkeeping permit, you may not transfer it to anyone else. If the property is sold or transferred, or the henkeeping plans are changed in any way, notify the public health department in writing. A new permit must be issued.

**RENEWAL**

Permits expire annually on April 30th of each year. A renewal application must be submitted through our online application system with the renewal fee of $25.

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## HENKEEPING INSPECTIONS CHECKLIST

- ☐ Number of hens matches the number reported on the application
- ☐ No roosters are kept on the lot
- ☐ Hens roam freely only while supervised and only within the designated lot / enclosure outlined in the application
- ☐ The hen enclosure is at least 100 feet from a wetland
- ☐ Hen enclosures are at least 5 feet from the property line or have a barrier separating it from neighboring property
- ☐ Henhouse enclosures have the Hen Keeper's name and contact information visibly listed on them
- ☐ Areas beneath the hen enclosure drain into the lot (no drainage or runoff into neighboring lots)
- ☐ Henhouse floor dimensions match those listed on the application (minimum 2 square feet per hen)
- ☐ Henhouses are enclosed by a roof and walls on all sides that are made of materials that pests and predators are not able to get through easily
- ☐ Henhouse walls, roofs, and doors are flush against each other without any gaps or entry points for pests
- ☐ The inside of the henhouse is easy to access for regular cleaning (Walls or roofs may be removable for temporary access.)

*Checklist continues on following page*

- ☐ Hen Run floor dimensions match those listed on the application (minimum 4 square feet per hen)
- ☐ Hen Runs are enclosed by a roof and walls on all sides that are made of materials that pests and predators are not able to get through easily
- ☐ Hen Run walls, roofs, and doors are flush against each other without any gaps or entry points for pests
- ☐ The inside of the hen run is easy to access for regular cleaning. (Walls or roofs may be removable for temporary access.)
- ☐ If the Hen Run is connected to the Henhouse, the connecting structure must be flush against the Henhouse with at least 1 door separating them from each other
- ☐ If the Hen Run is standalone, it must have a door that stands flush against the walls of the structure
- ☐ The pest management controls described in the application are present on all hen enclosures and should not interfere with the cleaning or maintenance of the structures
- ☐ Hen feed is stored securely in a moisture-proof container inaccessible to pests
- ☐ Hen feed left over from feeding is removed from any areas accessible to pests
- ☐ The Henhouse and Hen Run is free of decaying or rotting food, filth, pests, and stagnant water
- ☐ Waste is composted with carbonaceous/organic material
- ☐ Waste is stored in a sealed container if composting or proper disposal is not possible
- ☐ Henhouses are cleaned bi-weekly, or more frequently if needed
- ☐ Hen Keepers uphold their approved Manure Management Plan
- ☐ Does the Hen Keeper regularly engage in livestock dealing?
  - ☐ If yes, did the Hen Keeper receive paperwork regarding their flock's pullorum-typhoid status?
- ☐ Hens have access to fresh potable water each day
- ☐ Hens are segregated from interaction with migratory waterfowl
- ☐ Hen Keepers follow MDAR best management practices and recommended biosecurity measures for backyard poultry keepers
- ☐ Hen Keeper plans to sell or not sell eggs produced by their hens as indicated on their application (Yes/No)
  - ☐ If yes: Retail food permit had been obtained for the sale of eggs
  - ☐ If yes: Eggs intended for sale are stored at 45°F or less

# RESOURCES AND CITATIONS

## BEEKEEPING RESOURCES

**American Beekeeping Federation**
www.abfnet.org

**Bee Culture Magazine**
www.beeculture.com

**Massachusetts Beekeepers Association**
www.massbee.org

**MDAR**
www.mass.gov/regulations/330-CMR-800-apiary-inspection-regulations

**Middlesex County Beekeepers Association**
www.middlesexbeekeepers.org

## HENKEEPING RESOURCES

**American Poultry Association**
www.amerpoultryassn.com

**Association of Avian Veterinarians**
www.aav.org/page/FindAVet

**Massachusetts Society for the Prevention of Cruelty to Animals**
www.mspca.org

**Maine Organic Farmers and Gardeners**
www.mofga.org/resources/poultry/chickens

**National Poultry Improvement Plan**
www.poultryimprovement.org/documents/ma.pdf

**MDAR**
www.mass.gov/orgs/massachusetts-department-of-agricultural-resources

**Northeast Organic Farming Association**
www.nofamass.org

## CITATIONS


- Are eggs good for you or not?. www.heart.org. (2025, March 27). https://www.heart.org/en/news/2018/08/15/are-eggs-good-for-you-or-not
- Fooddata Central Frontpage. USDA FoodData Central. (n.d.). https://fdc.nal.usda.gov/
- How many eggs can I safely eat?. Harvard Health. (2022, March 14). https://www.health.harvard.edu/newsletter_article/how-many-eggs-can-i-safely-eat
- Jaiswal A, Dewani D, Reddy LS, Patel A. Choline Supplementation in Pregnancy: Current Evidence and Implications. Cureus. 2023 Nov 8;15(11):e48538. doi: 10.7759/cureus.48538. PMID: 38074049; PMCID: PMC10709661.
- Kuang H, Yang F, Zhang Y, Wang T, Chen G. The Impact of Egg Nutrient Composition and Its Consumption on Cholesterol Homeostasis. Cholesterol. 2018 Aug 23;2018:6303810. doi: 10.1155/2018/6303810. PMID: 30210871; PMCID: PMC6126094.
- Munn D. Why are chicken eggs different colors? Michigan State University Extension. (2013, December 29). https://www.canr.msu.edu/news/why_are_chicken_eggs_different_colors
- Ranard KM, Jeon S, Mohn ES, Griffiths JC, Johnson EJ, Erdman JW Jr. Dietary guidance for lutein: consideration for intake recommendations is scientifically supported. Eur J Nutr. 2017 Dec;56(Suppl 3):37-42. doi: 10.1007/s00394-017-1580-2. PMID: 29149368; PMCID: PMC5715043.
- Réhault-Godbert S, Guyot N, Nys Y. The Golden Egg: Nutritional Value, Bioactivities, and Emerging Benefits for Human Health. Nutrients. 2019 Mar 22;11(3):684. doi: 10.3390/nu11030684. PMID: 30909449; PMCID: PMC6470839.
- Rong et al. Egg consumption and risk of coronary heart disease and stroke: dose-response meta-analysis of prospective cohort studies. BMJ. 2013;346:e8539.
- Shin et al. Egg consumption in relation to risk of cardiovascular disease and diabetes: a systematic review and meta-analysis. Am J Clin Nutr. 2013;98:146-59.
- U.S. Department of Health and Human Services. (n.d.). Office of dietary supplements - vitamin D. NIH Office of Dietary Supplements. https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/
- Ylilauri MPT, et al. Association of dietary cholesterol and egg intakes with the risk of incident dementia or Alzheimer disease: The Kuopio Ischaemic Heart Disease Risk Factor Study. Am J Clin Nutr. 2016;105:476-484.