## A Guide to Raising Chickens in District School Gardens

## Introduction

Egg-laying female hens (referred to herein as "chickens") are a great way to engage students in the school garden, especially in urban environments like the District of Columbia where many students are disengaged with details pertaining to the food system. Chickens often attract students that are otherwise not interested in gardening and generate excitement among the entire school community. Additionally, chickens provide students with an opportunity to better understand how to properly care for and establish a positive relationship with animals.

This document was created in response to the growing number of schools in the District that have requested guidance on caring for chickens in schools. While the benefits are many, chickens do require vigilant care and attention. There are numerous resources that provide guidance on caring for chickens, some of these are listed in this guide under "Resources" but surprisingly few address the specific challenges of managing chickens in a school setting. Additionally, a Chicken Management Plan Template (referred to herein as "the plan") is provided to assist schools with the specific challenges of managing school chicken projects. This document provides basic guidelines created by The Office of the State Superintendent of Education (OSSE) and the Department of Health (DOH) to assist District schools with establishing and maintaining chicken programs.

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## Getting Started

1. Attend a "Chickens in Schools" training. These sessions are offered in the early spring and winter. Contact Sam Ullery at sam.ullery@dc.gov for more information.
2. Create a Chicken Management Plan using the Chicken Management Plan Template with key stakeholders (administration, teachers, parents).
3. Establish an appropriate chicken run and coop using the guideline provided.
4. Notify the District Department of Health's Animal Services Program (DOH/ASP) that you intend to establish a school egg-laying chicken program by emailing info@dc.gov.
5. Coordinate a pre-inspection visit of the planned site with the DOH/ASP to receive a permit at no charge.
6. Purchase and receive chickens, feed, and any necessary equipment from a reccomened provider (see Resources).
7. Continually reach out to DOH/ASP to support your school chicken program.
8. Coordinate annual inspections of the program with the DOH/ASP.

## Care and Safety

1. Reference the OSSE School Garden Safety Checklist which specifies to:
o Wash hands before and after handling chickens. A hand-washing station that includes a catch container outside the chicken area is recommended.
o Establish procedures that reduce the transfer of foreign substances into and out of the chicken area. Using shoe booties when entering and leaving is an example of an acceptable procedure.
o House chickens in an enclosed area down-slope from the edible growing area.
o Keep chickens out of the edible growing area at all times.
2. No student under the age of five should enter the chicken coop. No student under the age of eight shall handle chickens.
3. Ensure the chicken area (coop and run) is the appropriate size with adequate ventilation and proper materials to accommodate the maximum number of chickens planned (see structure and materials section for details).
4. Provide plenty of shavings for bedding (avoid cedar) and straw for the nesting boxes (make sure that the straw is not contaminated by the herbicide clopyralid).
5. The chicken coop and run should be cleaned by properly trained individuals at the frequency determined by the cleaning schedule (The Plan \#7). Facemasks should be worn when cleaning the coop and run.
6. Follow your maintenance plan. Post your plan and assign someone to track tasks (see program management responsibilities).
7. Do not dispose of waste directly in the garden area. Rather, incorporate waste into compost system if it is set up to safely compost these items. Otherwise waste should be placed into garbage bags and thrown away.
8. The following recommendations should be followed when handling eggs:
o Keep the nesting box clean.
o Eggs should be collected by properly trained students.
o It's not necessary or recommended to wash eggs and may actually increase the risk of contamination because the wash water can be "sucked" into the egg.
o The most efficient method of cleaning eggs is to use a soft brush to remove any small amount of dirt off the outside surface of the shell.
o Do not use eggs that are excessively dirty. If cleaning the eggs with a soft brush does not work, you should wash the eggs with running water (do not immerse). Water should be between 90 and 120 degrees (warmer than the temperature of the egg). Let the egg dry completely and then use a soft brush.
o Dry the eggs completely before packing them.
o Temperature consistency is critical to safety. If eggs are washed they should be refrigerated immediately.
o Refrigerated eggs should not be left out more than two hours.
o Eggs should be stored in a clean carton on a shelf in the refrigerator.
o You may re-use egg cartons as long as they are clean and labeled appropriately.
o Crushed egg shells make excellent compost, be sure to wash out the egg shells before placing them in the compost or directly in the garden.
o Properly dispose of eggs that are not to be consumed.

## Chicken Health

1. Chickens should be fed a high-quality feed that is clean and kept free of mold.
2. Ensure clean water is always available. A two or five gallon standing or hanging nipple watering system is recommended which greatly reduces the chances of water contamination.
3. Ensure feed is regularly available and kept clean with a chicken feeder.
4. Use the same watering and feeding system that the chicken was raised with. They will have difficulty changing over to a different feeding and watering system.
5. Chickens should have a variety of foods and adequate calcium. Greens such as kale, and fruit such as bananas, are examples of healthy treats. These treats can be given daily.
6. Chickens benefit from protein sources such as beetle grubs and other insects. Dried mealworms are a favorite treat and useful for training. These treats can be given daily.
7. Earthworms, snails and slugs should not be fed to chickens to avoid the risk of gapeworm transmission.
8. Select a breed that is hearty, friendly, and are great egg-layers such as:
a. Golden Comet (also known as Red Star and Red Sex-Link)
b. Plymouth Rock (also known as Barred Rock)
c. Buff Orpington
d. Black Australorp
e. Rhode Island Red
f. Polish and Silkie Chickens (these are miniature breeds that look very fun but can only be with other miniature chickens or they get pecked on by the full-sized birds)
9. Establish a schedule to ensure that chickens are monitored as frequently as possible. Post a phone number on coop or run that community members can call to report issues (see The Plan \# 8).

## Structures and Materials

General:

1. Chickens should be kept on the school grounds within the existing fencing that surrounds the outdoor space. Be sure to close and secure all gates during off hours.
2. Be proactive in regards to potential vandals. Chickens may attract unwanted attention to your garden.
Chicken Coop Specifications:
3. Allow 2-10 square feet per bird (depending on the size of the bird, to be determined on a site-by-site basis).
4. Allow for enough space so that an adult can easily clean the coop.
5. The flooring can be concrete, dirt, grass, or wood. If the flooring is dirt or grass a halfinch hardware cloth should cover the entire floor to prevent rodents.
6. Be sure the coop is tightly constructed.
7. Include screened windows with latch and lock.
8. Doors must be at least 1 foot $X 1$ foot with ramp with cleats every 6inches (to be determined on a site-by-site basis).
9. Include roosts but do not place above food or water.
10. Include one nesting box for every five chickens. Nesting boxes should contain nesting material such as straw and should be kept clean.
11. Heat lamps are prohibited as they are a fire hazard and can cause chickens to prematurely molt.
Chicken Run:
12. Allow at least 10 square feet per bird.
13. Include food and water trays.
14. Use a half-inch hardware cloth to construct a fence around, and above the run that tightly "cocoons" the chickens inside. Hardware cloth should be buried at least one foot deep and include and "skirt out".
15. Allow enough space for small groups of students to engage with the chickens. The run should also be an inviting space for students to observe and hold chickens.
Storage:
16. Ensure the storage is secure, weatherproof, rodent proof, and dry. Metal containers with tight lids are recommended.
17. Locate storage containers close to the chicken run and coop.
18. Provide space for feed, classroom equipment, cleaning supplies, safety equipment, and anything else to support lessons in the chicken area.

## Engaging Students

1. Begin each year by setting students' behavioral expectations. Create and agree on rules that students will hold themselves accountable for when working with chickens and assign roles/ jobs that students will be expected to fill.
2. Students should be taught how to approach, pick-up, hold, and set down a chicken properly. This can be done by first demonstrating each step in a comfortable environment such as the classroom. Be sure to transfer the chickens from the chicken area to the classroom safely (pet carriers work great for this).
3. Once students are comfortable handling chickens in the classroom, give students the opportunity to practice how to approach, pick-up, hold, and set down a chicken in the chicken area.
4. Chickens can be used to teach all subjects and a wide range of topics. Review the resources section at the end of the document for ideas.
5. Encourage classes to give the chickens unique names. Keep in mind that one chicken may have multiple names.
6. Because chickens should not leave the run, consider constructing a large run and make it inviting for students.
7. Chickens will live for up to 10 years and it's not legal to kill a chicken in the District. Be considerate of the chicken's quality of life. The DOH/ASP will advise on how to handle dead and sick chickens.
8. Eggs can be given away at school garden farmers markets or used during cooking class.
9. Chickens will eat random objects that look like food. Their area should be kept clean of trash and students should be instructed to fed chickens only wholesome food (according The Plan \#6).

## Program Management Responsibilities

## Students can:

1. Collect the eggs (daily).
o Ensure that students are properly trained to collect eggs.
2. Feed the chickens (frequency determined by response to The Plan \#6).
o Four chickens will consume 20 pounds of feed every two weeks.
3. Provide water to the chickens (frequency determined by response to The Plan \#6).
o Four chickens will consume two gallons of water every five days.
Staff can:
4. Clean the coop and run (once per week for 30 minutes).
5. Care for the chickens during break.
6. Perform as-needed chicken coop and run maintenance (one hour per month).

## Volunteers can:

1. Create instruction signage.
2. Build/ improve the chicken area.
3. Feed and water the chickens over extended breaks.
o Ensure that volunteers are properly trained to care for chickens.

## Pro Tips

The following tips are for existing school chicken programs that are ready to take their program to the next level:

1. Consider building a chicken tractor and creating a rotation plan which will maintain soil health and serve as a valuable teaching tool.
2. Store eggs pointy end down. When storing with the pointy end up, the yolk tends to get stuck in the small end and will break when the egg is cracked open.
3. Egg shells can be crushed and placed in the compost pile.

## Legal Information

To access the full text of each law visit: http://dcdecoded.org/
D.C. ACT 21-226 Emergency Amendment amends D.C. Official Code § 8-1808(h) by adding a new paragraph (6) to read as follows:
"(6) Paragraph (1) of this subsection shall not apply to educational institutions that possess animals for educational and instructional purposes and that otherwise comply with humane, sanitary, and safe treatment requirements, as set forth in section 502 of the Animal Protection Amendment Act of 2008, effective December 5, 2008 (D. C. Law 17-281; D.C. Official Code § 8-1851.02).".
§ 8-1851.01. Animals kept in schools.
Only animals of appropriate size and temperament suitable to a classroom environment shall be introduced into the classroom. Use of such animals shall be for instructional purposes only.

## § 8-1851.02. Care of classroom animals.

(a) Animals kept in schools shall be provided sufficient food and water, be cared for in a safe and humane manner, and remain in schools during holidays only if provided adequate care.
(b) Animals no longer needed in the classroom should be adopted out to a suitable home or given to a local humane organization for adoption.
§ 8-1808. Prohibited conduct.
(a) No owner of an animal shall allow the animal to go at large.
(b) No person shall knowingly and falsely deny ownership of any animal.
(c) No person shall remove the license of a dog without the permission of its owner.
(d) No person shall change the natural color of a baby chicken, duckling, other fowl or rabbit.
(e) No dog shall be permitted on any school ground when school is in session or on any public recreation area, other than a dog park, unless the dog is leashed.
(f) No person shall sell or offer for sale a baby chicken, duckling, other fowl, or rabbit that has had its natural color changed.
(g) No person shall sell or offer for sale a rabbit under the age of 16 weeks or a chick or duck under the age of 8 weeks except for agricultural or scientific purposes.
(h)(1) Except as provided in this subsection, no person shall import into the District, possess, display, offer for sale, trade, barter, exchange, or adoption, or give as a household pet any living member of the animal kingdom including those born or raised in captivity, except the following: domestic dogs (excluding hybrids with wolves, coyotes, or jackals), domestic cats (excluding hybrids with ocelots or margays), domesticated rodents and rabbits, captive-bred species of common cage birds, nonpoisonous snakes, fish, and turtles, traditionally kept in the home for pleasure rather than for commercial purposes, and racing pigeons (when kept in compliance with permit requirements).
(2) A person may offer the species enumerated in paragraph (1) of this subsection to a public zoo, park, or museum for exhibition purposes.
(3) This section shall not apply to federally licensed animal exhibitors; however, the Mayor retains the authority to restrict the movement of any prohibited animal into the District and the conditions under which those movements are made.
(4) The Mayor may allow a licensed wildlife rehabilitator, a licensed veterinarian, or a licensed animal shelter to maintain an animal prohibited in this subsection for treatment or pending appropriate disposition.
(5) Paragraph (1) of this subsection shall not apply to persons who own or possess domestic dog hybrids of wolves, coyotes, or jackals prior to March 17, 1993.
(i) No person may sponsor, promote, train an animal to participate in, contribute to the involvement of an animal in, or attend as a spectator any activity or event in which any animal engages in unnatural behavior, is wrestled or fought, mentally or physically harassed, or displayed in such a way that the animal is struck, abused, or mentally or physically stressed or traumatized, or is induced, goaded or encouraged to perform or react through the use of chemical, mechanical, electrical, or manual devices in a
manner that will cause, or is likely to cause, physical or other injury or suffering. This prohibition applies to any event or activity at a public or private facility or property and is applicable regardless of the purpose of the event or activity and regardless of whether a fee is charged to spectators.
(j) No person who has control or custody of a dog shall, direct, encourage, cause, allow or otherwise aid or assist that dog to threaten, charge, bite, or attack a person or other animal, except that a person may keep a properly trained dog on private property to defend it and its occupants from intruders, and may order a dog to defend a person under attack. This section shall not apply to dogs who work for the Metropolitan Police Department or any other law enforcement agency.
(k) No person may display, exhibit, or otherwise move animals in the District of Columbia as part of a circus, carnival, or other special performance or event, without first obtaining a permit, issued by the Mayor, that governs the care and management of the animals.

## Resources

Training and Support:
OSSE School Garden Program
http://osse.dc.gov/service/school-garden-program-sgp
The Department of Health's Animal Services Program
http://doh.dc.gov/service/animal-services

Egg Safety<br>http://www.extension.umn.edu/food/food-safety/food-service-industry/regulations/sale-of-locally-raised-eggs/\#section-four; http://articles.extension.org/pages/71048/safe-handling-of-eggs-from-small-and-backyard-flocks\#.VAXI-DYpCcw; http://www.fsis.usda.gov/wps/wcm/connect/5235aa20-fee1-4e5b-86f58d6e09f351b6/Shell Eggs from Farm to Table.pdf?MOD=AJPERES;

## Berkley's Edible Schoolyard

A thirty minute "Google Hangout" highlighting the Edible Schoolyard's chicken program in Berkley, CA which includes many useful tips specific to engaging students with chickens. Note you must create an account with the Edible Schoolyard Network to access this resource here: http://edibleschoolyard.org/user . http://edibleschoolyard.org/resource/google-hangout-chicken-talk-esy-berkeleys-garden-manager-geoff-palla

## The Edible Schoolyard Chicken Coop

The presence of chickens and ducks in the Edible Schoolyard program has fostered nurturing amongst the student body and added tremendously to student buy-in. In this short video, garden teacher Jason Uribe outlines what you need to know to create a safe and flourishing environment for chickens at your school - See more at: http://edibleschoolyard.org/resource/video-edible-schoolyard-chickencoop\#sthash.bPhX2gR4.dpuf

## Chickens and School Gardens

The Slow Food National School Garden Program hosts monthly leader calls/webinars to provide Slow Food chapters and school garden volunteers further support and technical assistance. In this webinar hear from Farmer Kim Aman of Moss Haven Elementary School in Dallas, TX and learn how she obtained a flock of feathered friends on her school campus. She discusses the do's and don'ts for gaining chicken success: how to navigate the process with a school district, food safety concerns, student participation, community partners, and resources available to schools looking to get chickens as part of their school garden program. http://youtu.be/5fC1EASviEQ

## The City Chicken

his website provides useful information on just about everything related to raising chickens http://www.thecitychicken.com/.

## Backyard Chickens

This is an extensive site with all things chicken-related http://www.backyardchickens.com/.

## Providers:

## Rent-a-Coop

This is a local for-profit business that rents everything you need (except for the run) to start a school garden chicken program http://www.rentacoop.com/. The rental fee can be paid through individual school fundraisers, or the OSSE Farm Field Trip Grant and School Garden Grant.

Definitions:
Coop: Also called a chicken coop or a hen house, a coop is a structure that houses Egg-laying female hens and includes nesting boxes where eggs are laid as well as perches for sleeping.

Run: Also called a chicken run, a run is a structure that completely encloses the chickens (usually with hardware cloth) protecting them from predators and keeping them out of the garden areas.

Chicken Tractor: A movable chicken coop lacking a floor. Most chicken tractors are a lightly built A-frame which one person can drag about the school grounds. It may have wheels on one or both ends to make this easier.

## Chicken Management Plan Template for District Schools

## School Information

Name: $\qquad$
School Address: $\qquad$

Chicken Program Contact Information
Name: $\qquad$
Email: $\qquad$
Affiliation with School: $\qquad$
\# of chickens on site: (1-6 hens) $\qquad$
Size of coop (in square feet)
Size of run (in square feet): $\qquad$
The chicken management plan should address the following questions:

1. What procedures are in place to ensure hands are properly washed and that shoes are clean are before and after handling of chickens and entering chicken area?
2. What procedures are in place to ensure students have been properly trained to handle chickens?
3. What procedures are in place to ensure students are properly trained to enter the chicken area?
4. How will you care for chickens in the event of unplanned school closings or extreme weather?
5. How do you ensure that the chicken area is secure?
6. Describe the feeding and watering schedule including:
a. What watering and feeding systems will be used?
b. What type of feed will be provided?
c. How frequently will feed and treats be given?
7. Describe the day-to-day care and cleaning of the chickens as well as the chicken area. Include frequency of cleaning the run and coop as well as who will be responsible.
8. What procedures are in place to ensure the chickens are properly cared for over extended breaks of three or more days?
9. Describe how the coop and run structures ensure that both the chickens and humans are safe and healthy.
10. What is the breed of chicken and why was it selected?
11. How are the eggs collected, stored, and used?
12. What is the exit plan for the chicken program?
