

## **Section 410 - Licenses**

### **410.01 License Required.**

Subd. 3 Chickens License. All chickens within the City of Arden Hills, except as hereinafter provided, shall be licensed.

A. Application. Within thirty (30) days after acquiring possession of a chicken which has not been licensed by the City of Arden Hills, the owner of the chicken(s) shall make application for a chickens license. The application shall be on forms provided by the City of Arden Hills. If the Applicant is a renter, the Property Owner signature shall be required on the license application form.

B. Neighbor Notification. The Applicant shall be responsible for providing written notification to the neighbors immediately adjacent to the property of their intent to keep chickens. As part of the application review, the prospective license holder shall certify that they have provided the required written notification of their intent to keep chickens.

C. License Fee. The license fee must be submitted with the application. The fee will be established by City Council Resolution.

D. Duration of License. A two year license shall be issued.

E. Issuance of License. Upon completion of the application form and receipt of the license fee, the City Administrator shall cause a chicken license to be issued to the applicant subject to:

(1) No more than six (6) hens shall be housed or kept on any one (1) residential lot with the issuance of a City license.

(2) Dead chickens must be disposed of according to the Minnesota Board of Animal Health rules which require chicken carcasses to be disposed of as soon as possible after death, usually within forty-eight (48) to seventy-two (72) hours. Legal forms of chicken carcass disposal include burial, off-site incineration and/or rendering.

(3) Prior to issuance of a license, the prospective license holder certifies as part of the application review that they have read “Keeping of Chickens Informational Handout.”

F. The following are prohibited within the City of Arden Hills for chickens:

(1) Roosters are prohibited.

(2) No breeding of chickens is allowed.

(3) Slaughtering of chickens on the property is prohibited.

## **Section 1325 – General Regulations**

### **1325.07 Performance Standards.**

A. Location for Buildings Housing Farm Animals. Any building in which farm animals are kept shall be located a distance of two hundred (200) feet or more from any lot line. Any open structure in which farm animals are kept shall be a distance of four hundred (400) feet or more from any lot line, except for chicken coops and bee hives in the R-1, R-2, and R-3 Districts provided the following requirements are met:

Chicken Coops

(1) A coop, separate from other structures, is required to house the chickens. Coops must be constructed and maintained to meet the following minimum requirements:

a. A coop with a minimum of 20 square feet and no larger than 36 square feet is permitted as an accessory structure subject to Section 1325.01. Subd. 4 A. for Size.

## Arden Hills Keeping of Chickens Informational Handout

b. Exemption to Ordinance - A residential property with a detached garage and an accessory structure/shed will be allowed a third accessory structure for keeping chickens. The combined square footage of all three detached structures may not exceed 728 square feet.

c. Located in the rear yard. Chicken coop, pen, and optional exercise yard are not permitted in the front or side yard.

d. Setbacks are subject to applicable accessory structure setbacks of the underlying zoning district. In no instance shall the coop be located in front of the rear building line of the principal structure.

e. The outer limit of the coop including pen shall be located closer to the principal dwelling upon the property that is issued a license than any other residential dwelling on an abutting property and shall in no instance be located less than ten (10) feet from the property line and no closer than twenty-five (25) feet to any public trail or walkway.

f. Climate control – adequate ventilation and/or insulation shall be provided to maintain the coop temperature. Prior to issuance of a new license, the prospective license holder must provide a plan for maintaining an adequate temperature in the coop for safety of the fowl or poultry. The plan must address both extreme winter and summer temperature conditions.

g. Rodent proof – coop construction, all grain and food, and materials must be adequate to prevent access by rodents.

h. Coops shall be constructed and maintained in a workmanlike manner.

i. Chickens must not be housed in a residential house or an attached or detached garage.

(2) A pen is required. The pen must be constructed and maintained to meet the following minimum standard:

a. The pen shall be located adjacent to the coop and fenced with adequate coverage to keep hens in and predators out.

b. Minimum size per bird shall be 10 square feet of floor space.

(3) An exercise yard is optional. This area must be located adjacent to the chicken coop and pen and chickens must be supervised by the licensee while in an exercise yard.

(4) The licensee shall be responsible for cleaning up the chicken keeping areas and disposing of waste in a sanitary manner. Chicken feces must not be composted on site.

(5) Hens, coop, pen, and optional exercise yard shall not be kept in such a manner as to constitute a nuisance to the occupants of adjacent property.

(6) Any violation of the above conditions, (i.e. roaming chickens outside of proper enclosure, uncontrolled odor), if not remedied within 10 days, may result in revocation of the license.

(7) If the license holder does not renew the chicken license, and the coop was licensed as an allowed third accessory structure for chickens, the coop/third structure cannot be repurposed for a storage structure, and the homeowner shall have 60 days to remove any coop, pen, and exercise yard associated with the keeping of chickens in its entirety. If the homeowner/license holder fails to perform the above, the City may enter upon the subject property, remove the coop, pen, and exercise yard from the homeowner's property, and charge the amount back to the homeowner as an assessment on the property tax roll. If the coop was licensed as an allowed second accessory structure, and the property complies with the accessory structure requirements, the structure may be repurposed for a storage structure.

## Raising chickens for eggs

### Quick facts

- Raising backyard chickens can be a rewarding experience and a great way to teach kids about nature, agriculture, and the responsibility of caring for animals.
- Hens begin laying at around six months of age and can continue for five to 10 years, with peak production occurring in the first two years.

### Regulations

Raising chickens in the backyard may require a permit from your city; each city or town may have different requirements and restrictions. It is not legal in some cities to keep poultry. Some cities may also limit the number of animals you can keep.

Additional regulations apply if you want to sell your eggs or meat. The [Minnesota Department of Agriculture Dairy and Food Inspection Division](#) manages and enforces these rules.

### Popular backyard chicken breeds

A wide variety of chicken breeds have been developed for egg and meat production. While many breeds are adaptable to a backyard setting, certain breeds are better than others for backyard conditions.

- Medium to large breeds are good for cold winters.
- Look for breeds with mellow temperaments and good egg-laying.
- Bantam birds are a smaller version of any particular breed.



New Hampshire Red and Buff Orpington hens

### Rhode Island red

- Hens weigh about 6.5 pounds
- Lay brown eggs
- Dark red feathers

## Arden Hills Keeping of Chickens Informational Handout

- It is a dual-purpose breed most often used for laying
- Hardy breed that does well in small flocks

### Wyandotte

- Hens weigh about 6.5 pounds
- Lay brown eggs
- Dual-purpose breed
- Great for small flocks and rugged conditions
- Curvy shape, good disposition
- Many color varieties

### Ameraucana

- Many different color varieties
- Lay green eggs
- Great long-term egg production
- Dual-purpose breed
- Tolerant to all climates
- Easy to handle

### Orpington

- Hens weigh about 8 pounds
- A larger dual-purpose breed
- Lay brown eggs
- Many color varieties
- Heavy size is ideal for cold weather

### Diet

- Chickens are omnivores. They eat grains, fruits, vegetables and insects.
- Chickens should be fed a prepared feed that is balanced for vitamins, minerals and protein.
- A laying hen diet should also contain crushed oyster shell for egg production and grit for digestion.
- A 6-pound hen will eat roughly 3 pounds of feed each week.

They love fruit and vegetable scraps from the kitchen and garden, as well as bread. Scratch-cracked corn and oats are a nice treat for the chickens that does not supply all their nutritional needs but is fine in moderation.



Quality feed and clean water will help keep birds healthy and productive

## Arden Hills Keeping of Chickens Informational Handout

Feed consumption may increase in the winter when they burn more calories, and it may decrease in the heat of the summer.

A critical part of a chicken's diet is continual access to clean, fresh water. This is especially true in the summer as they cool themselves by panting.

### Housing

A quality coop is essential to backyard chicken production. Coops must provide protection from the weather and predators.

Layers need nest boxes, one per 4 to 5 birds. Chickens are descended from jungle birds, which means they like to be up high, so a place for them to roost is important.

There should be a well-insulated area with a light bulb or heat lamp for the winter months and ventilation for fresh air. Be sure to have a minimum of 3 to 5 square feet of indoor space per bird.

There is an endless variety of coop designs with just as much range in cost. Find a design that provides easy access and otherwise suits your situation.

### Predators

Their main predators are raccoons, rats, owls, hawks and cats. An enclosed space for chickens to stay at night is essential to their protection. Ensure that the coop is free of small holes that predators could sneak through. The space should be free of unnecessary objects like woodpiles or equipment, as they attract predators.

### Daily care

- Feed chickens and change their water daily.
- To protect them from predators, let them out of the coop each morning and put them back in at dusk each night.
- Pick up eggs twice a day.
- Clean the coop and pen weekly to maintain sanitation and odor control.

### Bird health

Healthy birds are active and alert, with bright eyes. They move around — pecking, scratching and dusting — except on hot days when they rest in the shade. Chickens that are healthy and active also talk and sing quietly throughout the day.

As each chicken is different in its laying and eating habits, monitor each chicken to get a feel for her normal production and consumption. Healthy droppings will be firm and grayish brown, with white urine salts. Roughly every tenth dropping is somewhat foamy, smellier than usual, and light brown.

## Arden Hills Keeping of Chickens Informational Handout

Chickens raised in backyard settings generally stay healthy and are not as susceptible to diseases. The easiest way to find disease in chickens is to know what a healthy bird looks like. When a chicken isn't acting normal—for instance, if she doesn't run to the food as usual or she wheezes or sneezes—start investigating.

### Possible causes of illness in chickens

#### Infection (invasion by another organism)

- Bacteria
- Mold and fungi
- Parasites
- Viruses (see information about [avian influenza](#))

#### Nonbiological

- Chemical poisoning
- Hereditary defects
- Nutritional deficiencies
- Unknown causes

### Sanitation

An important element of bird health is sanitation. To maintain a clean, healthy environment, the coop and outdoor area should be cleaned weekly or as needed to control manure and odor buildup.

- Feeders and waterers should be regularly cleaned and disinfected.
- Dust baths should be available as they help control mites.
- It is important that at least once a year, usually in the spring, a thorough cleaning is done on the coop and yard.
- Cleaning before introducing new birds to the area will limit the spread of disease.
- A fall cleaning is also helpful with mite control over winter.

Take safety precautions when handling dust during cleaning. Dried chicken manure can be harmful to humans if inhaled.

- Rake and clean out the yard.
- Wear a dust mask and mist the walls surrounding the area to control dust movement.
- All feeders should be removed and bedding completely cleared out.
- Remove dust and cobwebs from the corners of the coop.
- Disinfect the inside of the coop, including troughs, perches and nests.
  - To disinfect, use one tablespoon of chlorine bleach in one gallon of boiling water.

Learn about [biosecurity measures to prevent disease in your poultry](#).

## Manure management

Chicken manure is made up of feed residue, intestinal bacteria, digestive juices, mineral by-products from metabolic processes, and water. In fact, 85 percent of chicken droppings, by weight, is water. This leads to issues with humidity and odor. To manage manure:

- Thoroughly clean the coop more than once a year. This will control the odor and fly populations.
- Pasture the chickens. Moveable shelters are a valuable tool for pasturing chickens and reducing cleaning time. Simply move the location of the house when manure begins to build up. It offers new space for chickens to graze and peck, and it provides free fertilizer for the lawn.
- Composting can be done right in the chickens' bedding.
  - To start this process, lay down about 4 inches of bedding.
  - Regularly stir up the bedding to prevent clumping, and add fresh bedding until it is 10 inches deep by winter.
  - Continue this process until the bedding gets 12 to 15 inches deep. At this depth, composting actively begins and, after 6 months, can kill harmful bacteria.
  - Composting releases heat, which keeps chickens warm in cooler months and attracts natural fly predators.
  - To maintain the compost, it must be regularly stirred to prevent crusting.
  - The same process can be done outside of the coop in a separate bin.

## Egg production

Hens begin laying at around six months of age and can continue for five to 10 years, with peak production occurring in the first two years. They will lay roughly six eggs each week.

Egg production drops each year when the hens molt (replace their feathers in the early fall) and as daylight hours are lost.

Hens need at least 12 to 14 hours of light each day to continue laying eggs. A regular light bulb is sufficient to supply this light.

## Purchasing birds

There are several places to purchase chickens. You can order from major hatcheries online. There are also many individuals breeding and selling poultry. Local farm supply stores may also order them for you.

## Sources

- [\*Storey's Guide to Raising Chickens\*](#) by Gail Damerow
- [\*American Standard of Perfection\*](#) by the [American Poultry Association](#)

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# RECOMMENDATIONS FOR MUNICIPAL REGULATION OF URBAN CHICKENS

*For distribution to public and permit applicants*

**BASIC CHICKEN CARE INSTRUCTIONS (pages 2-8)**  
**REQUIREMENTS FOR KEEPING CHICKENS (page 9)**

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2010

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## BASIC CHICKEN CARE INSTRUCTIONS

### **CONSIDERATIONS BEFORE ACQUIRING A CHICKEN**

#### **Lifespan**

- Chickens can live as long as a dog or cat— up to 14 years or longer.
- Egg laying for a hen generally starts at 6 months old, peaks at 18 months and declines with age.

#### **Cost**

- Start-Up costs for coop, maintenance, tools, cleaning equipment, heating / cooling appliances, dishes, nets, food storage, scale, fencing, security locks, lighting, motion detectors, monitors, cameras, permit application (\$2-3,000)
- Annual supplies per bird for food, bedding, nutritional supplements, hygiene supplies, permit fee, utilities (\$300)
- Vet care per bird per service (office exam \$66, fecal test \$28, plus other services as needed for illness or injury). Are you able to provide the birds with proper veterinary care needed?

#### **Time**

- Average 1 hour per bird per day minimum for cleaning, parasite control, grooming, physical exam, travel time to purchase supplies, construction, repair, medication, feeding, supervise free time out of pen.
- Chickens need to be tended to twice daily. Will you have a person ready to substitute for you when you have reason to be absent?

#### **Space**

At least a 6 ft x 12ft x 6 ft high space in a yard is needed for a coop and pen for 4 birds, in addition to a larger fenced area for regular exercise.

#### **Location**

Coop and pen should be located in an area that provides shade, direct sunlight, good drainage and protection from prevailing winds and will not present a problem to neighbors.

#### **Uninvited guests**

Chickens will attract bird-mites and lice, mice, yard birds, squirrels, raccoons, dogs, coyotes, fox, mink, opossum, rats, owls, bobcats, hawks, snakes, weasels, ferrets, fishers, martens and humans.

### **ACQUIRING A CHICKEN: ADOPTION OR PURCHASE/BREEDING?**

The recent interest in having chickens has overwhelmed animal rescue organizations with inquiries from people wanting to give up unwanted chickens. As with all other animals surrendered to shelters, rescue organizations cannot help them all. There are never enough homes for displaced animals, so adoption of birds who need homes is always the kindest choice. Instead of purchasing from a breeder or hatchery.

**Adoption-** By adopting from a rescue organization or a private individual, you can know what to expect with regard to the bird's health, sex, behavior and personality. Reputable rescue organizations can provide advice on selecting the right bird and care information, and they generally have a generous return policy to insure that bird will be happy, compatible and well cared for.

**Purchase/breeding-** The identification of the sex of chicks by feed stores, breeders and hatcheries is often wrong and not apparent until the bird is 6 months old. 50% of the chicks hatched are roosters who are killed or otherwise discarded of as waste. Newborn chicks shipped through the postal service are deprived of their mothers, warmth and food. The younger the birds, the more fragile and difficult they are to care for.

### HEALTHY BIRD CHECKLIST

**Eyes:** clear, clean, wide open, alert

**Face / comb / wattle:** clean, soft, blemish free, healthy deep red indicating good blood supply, (some faces are not red)

**Posture:** head erect, good balance, stands or perches on both feet on extended legs, good grip on perch, facing activity

**Odor:** none or slightly fermented hay

**Beak / nostrils:** clean, uniform, shiny and solid

**Legs / feet:** clean, shiny, uniform scales and nails; foot bottom soft and blemish-free; legs and toes straight and functional

**Feathers;** clean, bright, shiny, smooth or fluffy; free of mites or lice

**Wings:** held close to body, symmetrical, smooth movement in joints when flexed, flight feathers intact

**Skin:** clean, soft, pale pink and translucent (some breeds have bare red patches at shoulders and keel), free of mites or lice

**Droppings:** 70% odorless green/ white, firm, 30% stinky brown pasty (cecal), watery if stressed

**Keel (sternum):** Straight, good muscle mass on either side, lump free

**Crop (on bird's right side of lower neck):** full, contents of consumed food easily palpated

**Vent:** petite, clean, moist, soft, pliant

**Respiration:** 12-37 per min., inhalation louder and shorter than exhalation, minimal chest movement, closed beak

### NUMBER OF BIRDS

Calculating available space, time, and cost (see above) will dictate how many birds can be properly cared for:

**Coop:** 4 sq. feet of floor space minimum per bird for the interior (an area 2 ft x 2 ft per bird)

**Pen:** 10 sq. ft of floor space minimum per bird (an area 3 ft x 3.3 ft per bird)

**Range/ exercise yard:** 174 sq. ft per bird (an area about 10 ft. x 17 ft per bird)

A single chicken is a sad chicken. Plan to have at least 2— they are flock animals and need the companionship of other chickens. Generally, 3-5 compatible chickens can be well maintained in a typical city environment. Individual birds' sex, ages and temperaments can affect compatibility. Over crowding chickens is the most common mistake. Hens should outnumber roosters. Sometimes single birds can thrive with a human friend if they have special needs. Roosters, single or in pairs, are very sociable and can make terrific companions if handled gently and often.

### HANDLING & RESTRAINT

Never handle a chicken by wings, feet or legs. Herd bird to corner using slow deliberate movement. (Fast= predator, slow = less threat.) Place hands over top part of wings (shoulders) and hold securely but do not squeeze. Pick up and hold under arm to keep wings in place. Support feet with other hand if bird will tolerate. To restrain for transport or examination, drape a towel over shoulders cape-style and wrap around body.

### TRANSPORTATION

Consider travel time and avoid extreme weather conditions. Heat exhaustion can develop quickly, and interior car temps can reach fatal point 10 minutes. Medium-sized, hard pet carriers work well for security, safety, stress. Line with a towel, shredded paper or straw. Food is a good stress reducer. Offer wet food like greens or cucumber for long trips.

### ARRIVAL

If other birds are already present, a 2-week quarantine in a separate area is recommended to watch for

## Arden Hills Keeping of Chickens Informational Handout

signs of illness and parasites. Avoid noisy, high-traffic areas, and allow the bird to acclimate before introducing to other birds, animals and family.

### **PROVIDING A GOOD HOME**

#### **NATURAL HISTORY**

It is important to understand how chickens live in the wild and to provide them with an environment that meets those instinctive physical and psychological needs as closely as possible. Chickens are all descended from Tropical Jungle Fowl and are adapted to living in a natural habitat that is spacious, richly vegetated, diverse and warm. This presents a particular challenge in a small, urban setting in a cold climate like Minnesota.

Flocks have a highly developed social structure and members depend on one another for companionship and security. Naturalists have observed that they can recognize and remember 180 other individual flock members. They are ground-dwelling birds. Most are capable of low flight in short distances; smaller birds can fly higher and farther.

In the wild, they roost in trees at dusk before they sleep or to escape predators. They hide their nests in cavities in the ground. The majority of their waking hours are spent active, widely ranging, grazing and foraging for food— plants, bugs and occasionally small rodents. In their natural state, they typically travel 1/2 mile from their roost each day. In the wild, they are never over crowded; if the population becomes too dense, members will break off into subgroups and spread out. They move on from one area to another, which allows food sources to regenerate and prevents their waste from concentrating in one place so it can decompose without health risk to the flock.

Roosters alert the flock to danger, find food and call the hens to it and stand guard as they eat. They select and build nests and will even participate in caring for the young. They also act as peace keepers to intervene in disputes that can develop between flock members. Roosters will start to crow and display courting behaviors at about 6 months of age. It is essential to gently handle a rooster on a daily basis to establish that you are the flock leader (Alpha) and maintain a well-socialized companion.

The hens spend their time scratching for food, dust bathing, preening, playing and napping. Hens begin to lay eggs at about 6 months of age. Hens in the wild produce only a few clutches of eggs a year for the sole purpose of reproduction. Domesticated hens have been bred to lay one egg a day, but by 18 months of age, egg-laying frequency generally diminishes, and many adult or senior hens stop laying altogether.

Chickens are sociable, cheerful and intelligent creatures who can form lifelong bonds with each other and other species including humans, dogs and cats. Because of their keen intelligence and instinctive physical activity, they need a stimulating environment that mimics as much as possible the rich and diverse world nature designed them to enjoy.

#### **COOP, PEN, RANGE/ EXERCISE YARD**

“Housing and infrastructure. The primary purpose of poultry housing is to protect flocks against adverse weather and predators (coyote, fox, stray dogs, raccoons and raptors). Weather is of critical concern in the Upper Midwest, where summers can be extremely hot and winters bitterly cold. Housing must provide shade from sun and cover from rain. It must be able to withstand high winds and snow loads if it is to be used for year-round operation. These basic housing considerations apply to all poultry.”

*-Poultry Your Way: A Guide to Management Alternatives for the Upper Midwest, Minnesota Department of Agriculture, 2005*

## Arden Hills Keeping of Chickens Informational Handout

**COOP:** *The house, closed structure or enclosed room which provides shelter from cold, heat, wind, rain, snow and predators for protected roosting, nesting, feeding and watering space.*

**Construction & Materials** – Coops can be purchased ready made or in kits, constructed within an existing structure or built from scratch. Local building codes should be followed to prevent damage from snow, wind, etc. **NOTE:** rabbit hutches, plastic igloos, dog houses and such are not appropriate structures.

**Required features:**

**Size:** 4 sq. feet of floor space minimum is required per bird for the interior (an area 2 ft x 2 ft per bird). So, four birds will need a coop with an inside floor space of at least 4 ft x 4 ft, not including nest boxes. Outside dimensions should be about 5 ft x 5 ft x 6 ft high. Overcrowding is the most common cause of behavior problems, injury and disease. Coops should be high enough for a human to stand up comfortably for cleaning, maintenance and egg collection. It also allows for additional roosting. Temperament and social structures should be taken into account, and partitions should be available for birds who are sick, injured or lower in the pecking order.

**Access to electricity:** This is required in free standing structures.

**Floor:** The floor should not collect and hold moisture, should be easy to clean, should retain heat in cold weather and should exclude rodents/predators. A dirt floor draws heat away and is not easy to clean or to rodent/predator-proof. A wood floor is adequate, provided it is at least a foot off the ground, insulated and sealed properly— but it is difficult to sanitize because it is porous. A concrete floor is ideal since it discourages rodents/predators and is easy to sanitize. Regardless of the floor type, bedding strewn on the surface is needed to absorb moist fecal matter and facilitate cleaning. Leaves or wood shavings work best and can be composted or easily bagged and disposed of as solid waste.

**Walls-** Materials that are resistant to moisture and mold and easily cleaned are best. Chemically treated materials should be nontoxic. A good compound with anti fungal agents is good for humid areas. Clear varnish is also good. Everything should be treated or painted before it is assembled. Wooden structures should be draft free and built with double walls that have at least 1 1/2 inch insulation layer between them.

**Roof:** The coop roof should be made of a material that will not collect and hold heat and should be built with double walls that have at least 1 1/2 inch insulated layer between them. The roof surface should be covered with an insulating tar paper to protect it from heavy rains. The roof should be slightly inclined, to allow water to run off. An overhang at the front wall will protect from downpours. A few small openings along the eaves allow moisture to escape and provide fresh air.

**Doors:** One human-sized door is needed for daily access. Doors for chickens should be just large enough for the largest bird and can be positioned anywhere from ground level to about 2 feet high with a stable ramp with cleats. Chickens are ground dwellers, not parrots—small doors at heights greater than 3 feet with flimsy, unstable ladders are not appropriate. Doors must be able to be secured against predators at night.

**Windows:** Chickens love windows and need natural light. Double glaze for warmth. Cover with 1/2" metal screen so they can be opened for ventilation in hot weather. Allow one square foot of window for each 10 square feet of floor space.

**Roosts:** Lumber or branches can be used. They should be strong enough and mounted securely enough to hold all birds. The surface should be rough for good grip with no splinters or sharp edges. For medium sized birds, 2" or 4" flat or 1 1/2" diameter is best for foot comfort. The longer the roost, the better it will prevent competition. They should be set 18" from the wall, 2 -3 feet off the floor. If mounted higher, rung steps are needed, spaced 8-12 inches apart. The addition of a dropping board underneath and an elevated roost will collect droppings and keep floor space below clean and inhabitable.

**Climate:** Shelters should be kept at a comfortable temperature for the animals. According to the Minn. Dept. of Agriculture, "Minimum Temperature 55°(F) , maximum temperature 70° (F)." (Ibid.)

The coop should be heated to maintain a temperature above 32° F during the coldest part of the winter and cooled below 85° F in the hottest part of the summer.

## Arden Hills Keeping of Chickens Informational Handout

Below 32° F, birds are uncomfortable and cannot maintain body temperature. Below 15° F, frostbite begins, and hypothermia increases. Oil- or water-filled safety heaters (i.e. brands Pelonis, DeLonghi, Honeywell) are completely closed, sealed systems that run on electricity. The oil is heated from within and the heat is radiant, so there are no exposed heating elements to create dangerous problems even if they tip over. Heat lamps should only be used with extreme caution and should be firmly attached at least 3 feet from animals and far from any flammable item, especially dry straw or bedding. Smoke alarms are highly recommended. Extra bedding should be available to keep animals warm and comfortable in cold seasons.

Between 75° and 85° F, panting and dehydration begin; above 85° F, heat stress and danger of heat prostration increases.

**Ventilation:** Doors, windows and vents near the ceiling supply oxygen, remove heat from breathing, remove moisture from breath and droppings, remove harmful gasses and dust particles, and dilute disease-causing, airborne organisms. Fans should be provided for hottest weather.

**Light:** Natural light from windows and/or skylights are required. Can be supplemented with full spectrum incandescent light to follow normal seasonal light cycles and for cleaning and maintenance. The minimum light intensity you should provide should be enough to clearly see the hens feed when standing over the feeder.

**Feeders:** Food receptacles should be made of non-corrosive material that is easily cleaned, minimizes spillage, prevents contamination with droppings and keeps food dry. The containers should be large enough for all the birds to comfortably eat at once or numerous enough to prevent competition or intimidation. Large, heavy, rubber feed buckets work nicely. Hanging dishes or feeders work as well and should be hung at about the level of the bird's back. If dishes are outside the coop, they should be set under an overhang to keep them dry when it rains.

**Waterers:** Water receptacles should be made of non-corrosive material that can be cleaned and disinfected with a solution of chlorine bleach, prevent contamination with droppings and is spill and leak proof. The containers should be large enough for all the birds to comfortably drink at once and hold enough water for all birds for an entire day. They should be slightly positioned higher than the feeder or far enough away to prevent contamination with food.

**Nestboxes-** One nest box is needed for every 3 hens. A 12"W x 12"D x 14"H box is most versatile. Chickens prefer wooden nest boxes with covered opening for privacy placed on or as low to the floor as possible. If set higher, they require a perch in front of the opening. They should be filled with 2-4 inches of straw, litter, or grass. They prefer to nest in the southeast corner of the structure whenever possible.

**PEN:** *The pen is a fenced area surrounding the coop that provides secure access to exercise, sunlight, earth and vegetation and is freely available to the birds when they are unsupervised. It is constructed to prevent the birds' escape and prevents entry by intruders/predators.*

**Construction & Materials** – Kennel pens can be purchased ready-made or in kits, or built from scratch. Local building codes should be followed to prevent damage from snow, wind, etc. Temperament and social structures of flock should be taken into account, and partitions should be available for birds who are sick, injured or lower in the pecking order.

### **Required features:**

**Size:** 10 sq. feet of floor space (an area of 3 ft x 3.3 ft) minimum per bird is required, so 4 birds will need floor space of at least 6 feet x 7 feet. If the coop is adjacent to the pen, at least a 6 x 12 foot space in a yard is needed. If the coop is elevated 2 feet so the chickens can use the space underneath, the coop and pen can occupy some, but not all, of the same footprint. Having most of the pen in deep shade all of the time is conducive to unhealthy bacterial and fungal development. The pen should be high enough for you to stand up comfortably for cleaning, maintenance, capture and also to allow for additional roosting.

**Substrate:** Choose a well-drained area. Substrate material for the pen should be clean, nontoxic, biodegradable, readily available, inexpensive and replaceable. Since it will become compacted from little feet and contaminated by concentrated droppings and parasites, it will need to be raked out and

## Arden Hills Keeping of Chickens Informational Handout

replaced frequently to reduce odor and fly activity. Play-sand, leaves, municipal wood chips, sod and hard-wearing ground cover work well.

**Metal fencing / predator control:** The type of fencing depends on what the most likely predators are in your area. Dogs, rats, raccoons, hawks and coyotes are the most prevalent in city neighborhoods, but others include fox, mink, opossum, bobcats, snakes, weasels, ferrets, fisher and marten. It's best to build the strongest deterrents possible. Chain-link panels or welded or woven fencing on a sturdy frame, reinforced at the bottom with small-mesh metal wire that prevents predators from tunneling under the fence will discourage most intruders. Regular inspection is the key to security.

**Gate:** A gate is needed for easy human access.

**Cover:** The pen should be covered to keep birds in and predators out. The type of covering needed will depend on the type of predators. Covering part of the pen with a roof such as corrugated fiberglass can provide shade and rain shelter.

**Windbreak:** Providing a wind and snow break will give the birds a protected area to be outdoors even in winter.

**Shade:** Shade must be available and can be provided by vegetation or strategically placed materials.

**Dust bath:** Taking a dust bath is the closest thing to heaven for a chicken. They derive pleasure and contentment by bathing in the sun and in loose, dry soil depressions in the dirt, which cleans their feathers and rids them of parasites. Birds will usually dig their own hole for dust baths. Keep the soil in the dust bath loose, and add play-sand if it is a heavy clay soil. Adding a little poultry dust, diatomaceous earth or wood ash increases the effectiveness of parasite control. Large, heavy rubber feed buckets filled with play-sand are a welcome addition to the indoor coop in the winter.

**Enrichment furnishings:** There is nothing sadder than a barren pen, when compared to the rich jungle environment chickens evolved in. Lots of large branches, stumps or platforms provide places to go and things to do, and they look natural and attractive in the pen. Include bushes, boxes or other objects to sit in or hide behind. Plant kale or other safe, edible vegetation around the outside of the pen for forage. Overcrowding, boredom and barren pens are the most common causes of behavioral problems.

**RANGE/ EXERCISE YARD:** *The larger fenced area like a backyard that provides ample space for safe exercise, forage, sunlight, earth and vegetation that is regularly available to the birds when supervised.* For regular exercise, 174 sq. ft per bird (an area about 10 ft x 17 ft per bird) is required. Four birds will need access to a 40 ft x 70 ft fenced area in the yard. If there is no access to a larger range/ exercise yard, 16 sq. feet of floor space minimum per bird (an area 4 ft x 4 ft per bird) in the pen must be provided.

**Fencing:** 6 feet of privacy fencing prevents and discourages uninvited human and animal visitors. It also promotes the safety and security of the birds and neighbors.

**Nontoxic plants:** Chickens are inquisitive and voracious eaters of vegetation and many ornamental garden plants can be toxic to them. Learn which of your plants might be harmful and fence them off or better yet replace them with safe and nutritious plants.

**Security:** Chickens are susceptible to theft, vandalism and predators and need to be securely shut in the coop at night. Security cameras, lights and baby monitors are also highly recommended deterrents.

### **PROVIDING GOOD CARE**

#### **FOOD / WATER**

Fresh food and water are required daily and should be available at all times. Hay, grain and prepared feed should be fresh—less than one year old and free of mold, insects or other contaminants. Daily intake should include: 60 % nutritionally balanced, prepared feed appropriate for the age of bird, 20% scratch (cracked corn, oats, black oil sunflower seeds, milo, barley) 20% fresh (nutritious foods and table scraps—caution, toxic: onion, avocados, chocolate). Supplements: oyster shell or limestone for calcium, granite grit for digestion, mineral salt or ground salt licks. Chickens drink 1-2 cups of water a day.

## Arden Hills Keeping of Chickens Informational Handout

Feed should be stored inside rodent-proof containers in a cool, dry area inaccessible to animals. Stored feedbags should be rotated to ensure that feed is always fresh. Food that is uneaten or spilled should be removed from animal enclosures daily.

### **SOCIAL NEEDS**

Temperament and social structures of animals should be taken into account, and separate areas should be provided for incompatible birds.

### **VET CARE**

Locate a veterinary clinic nearby that will see chickens before one is needed—preferably one that specializes in avian care. Chickens are welcome in increasing numbers of city clinics. Check vet backgrounds at <http://www.vetmed.state.mn.us/Default.aspx?tabid=803>.

Have an isolation area or roomy carrier and heating pad for sick or injured birds. Critical/emergency first aid supplies should be kept, including roll gauze, gauze pads, tape, vet wrap, blood-stop powder, antibiotic ointment, antibacterial scrub and solution, and bandage scissors.

### **SANITATION**

Manure and wet bedding should be removed from the coop and animal feeding and lounging areas daily. Thorough, complete cleaning of walls and perches, removal of all bedding, and disinfecting of the coop and furnishings should be done at least once a year. Keeping shelter areas clean and dry will help prevent bacteria, fungi, insects, rodents, etc. Rodent levels will be minimized by keeping all feed in rodent-proof containers and removing spilled or uneaten food promptly. Litter can be double bagged and disposed of as solid waste or composted, but composting must be done in an area where chickens will not scratch for at least a year.

Housing animals in spacious, clean and relatively dust-free environments will keep them healthy and will minimize human exposure to infectious disease.

#### *Sources:*

Poultry Your Way: A Guide to Management Alternatives for the Upper Midwest, Minnesota Department of Agriculture, 2005

Standards of Care for Chickens, Adapted from Standards of Care for Farmed Animals, The Association Of Sanctuaries (TAOS). Edited by Chicken Run Rescue. 6/2008, revised 4/7/09

Poultry Housing Considerations for Low Input Small Scale Producers, David Sullenberger, TimeWarrior Farm Chronicle Special Reports, Revision E, fall 2003

Building Chicken Coops: Storey Country Wisdom Bulletin A-224, Gail Damerow, 1999

Chicken Health Handbook, Gail Damerow, 1994

**REQUIREMENTS FOR KEEPING CHICKENS**

The Permit for keeping chickens and other domestic fowl is contingent on your meeting responsibilities to your neighbors and the birds. Our department so often sees animals in inappropriate settings. Before going further, please read the enclosed CHICKEN CARE SHEET. Consider the commitment needed with regard to the lifespan, cost, time, space, location, and other consequences of caring for chickens. Next, consider the kind of impact they may have on your neighborhood. You must provide sufficient control so that their presence will not disturb neighbors with property damage, activity, noise, odor or trespass. You must keep your property clean and maintained in a manner that prevents insect and rodent infestations. Finally, consider the birds themselves. Are you willing to assume a long term commitment to them? They must be provided with food, water shelter and veterinary care. They also need kindness and personal attention.

**COOP:** *The house, closed structure or enclosed room which provides shelter from cold, heat, wind, rain, snow and predators for protected roosting, nesting, feeding and watering space.*

**size:** 4 sq. feet interior floor space minimum per bird (an area 2 ft. x 2 ft. per bird).

**access to electricity**

**floor:** wood- 1 ft. off the ground, insulated / sealed or concrete

**bedding:** clean, absorbent, nontoxic, biodegradable and replaceable material

**walls:** varnished, treated or painted draft free double walls 1 1/2 inch insulation

**roof:** will not collect / hold heat, min. 1-1/2 inch insulation, insulating tar paper, inclined, vents

**doors:** 1 human-size, 1 bird door 0-2 ft. high, stable ramp, secure latch

**windows:** 1 square foot of window per 10 square foot of floor space

**roosts:** 1 1/2 diameter or greater, 18" from wall, 2 -3 feet off the floor.

**climate control:** heater, fan, ventilation to maintain temperature 32° min.- 85° max. F

**light: full spectrum,** windows and/or skylights, incandescent light or other to follow normal seasonal light cycles.

**feeders/ waterers:** non corrosive, clean, size and number sufficient, accessible for all birds

**nestboxes-** 1 per 3 hens, bedding

**PEN:** *The fenced area surrounding the coop that provides secure access to exercise, sunlight, earth and vegetation and is freely available to the birds when they are unsupervised. It is constructed to prevent the bird's escape and prevents entry by intruders/predators.*

**size:** 10 sq. ft of floor space minimum per bird (an area 3 ft. x 3.3 ft per bird)

**substrate:** well drained area; clean, nontoxic, biodegradable and replaceable matter

**metal fencing and gate / predator control:** sufficient to keep birds in/predators out

**cover:** sufficient to keep birds in/predators out

**windbreak, shade, dustbath, enrichment furnishings** (ie. branches, stumps or platforms bushes, boxes)

**RANGE/ EXERCISE YARD:** *The larger fenced area like a backyard that provides ample space for safe exercise, forage, sunlight, earth and vegetation that is regularly available to the birds when supervised.*

**size:** 174 sq. ft per bird (an area about 10 ft. x 17 ft per bird)

If no access to a larger Range/ Exercise Yard, pen must provide 16 sq. ft. of floor space minimum per bird (an area 4 ft. x 4 ft per bird)

**fencing:** 6 ft privacy fencing

**FOOD / WATER:** Fresh food and water daily, calcium supplement, grit, stored in rodent proof containers, uneaten / spilled removed daily.

**SOCIAL:** separate areas provided for incompatible birds.

**VET CARE:** designated veterinary clinic, isolation area

**SANITATION-** manure/wet bedding removed daily; clean / disinfect coop and furnishings annually. Soiled litter double bagged for solid waste or composted in an area inaccessible to chickens for at least a year.