

Raising Ducks in Small Flocks

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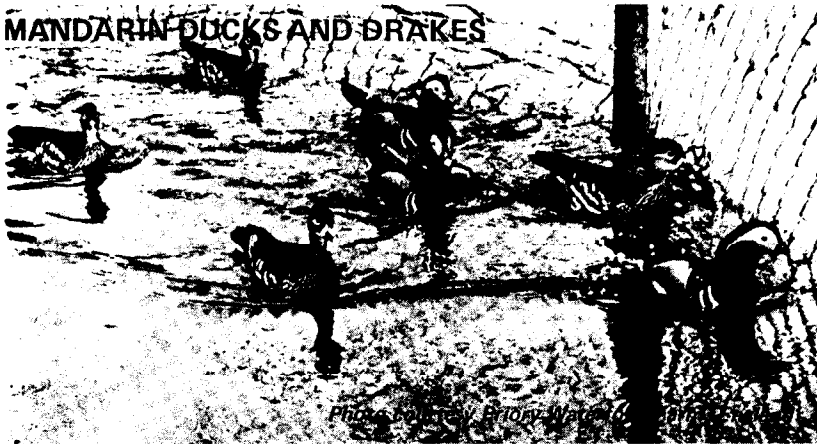
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MANDARIN DUCKS AND DRAKES



Raising Ducks in Small Flocks

INTRODUCTION

In California, ducks are raised to gain a source of food, a family learning experience, insect control, or interest and beauty in yards. There are numerous breeds and varieties, and stock can be obtained by purchasing hatching eggs, ducklings, or adult birds from hatcheries, retail sales outlets, or breeders.

BREEDS

The best breed for you to raise depends on your objectives. *White Pekin*, *Aylesbury*, and *Muscovy* ducks are good breeds for meat production, while *Khaki Campbell* and *Indian Runner* ducks are good breeds for egg production. The *Crested* duck, the *Rouen*, the *Mallard*, the *White* or *Gray* varieties of *Call* duck, and the *Mandarin* duck are breeds with attractive feather patterns, small size, or other special physical characteristics. They are often raised for pets, for insect control, or for their beauty.

Anyone interested in developing commercial duck production must consider the potential market and how ducks or their products are to be prepared for market. In California, few (if any) commercial poultry processors will buy ducks.

UTILITY AYLESBURY

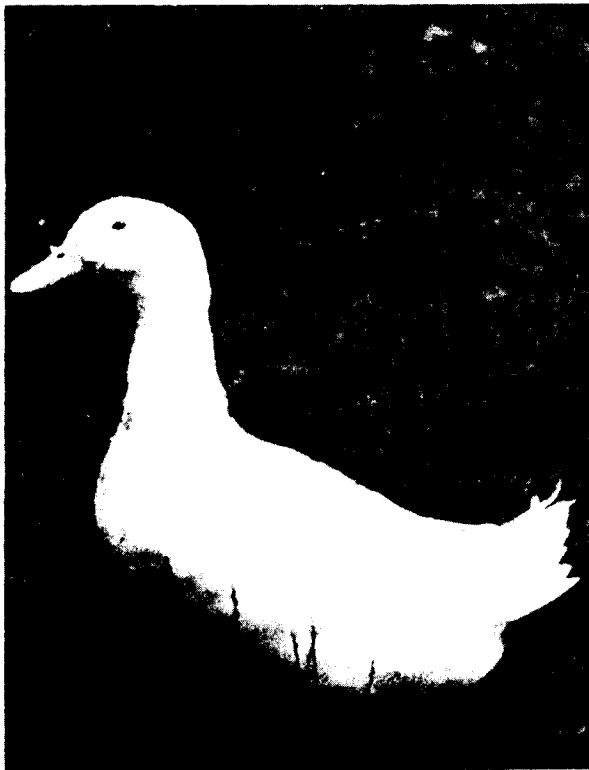


Photo courtesy Priory Waterfowl Farm, England

PEKIN

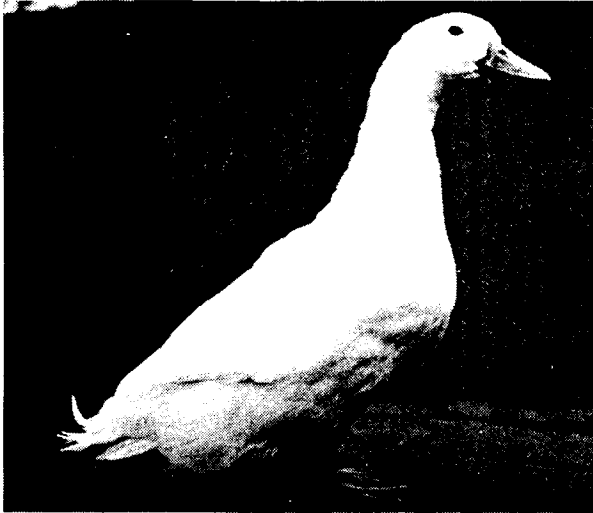


Photo courtesy Department of Agriculture and Fisheries, South Australia

White Pekin

California's commercial duck industry relies on the White Pekin. Seven-pound ducklings at 8 weeks of age become attractive dressed carcasses. The adults are large and white-feathered with orange-yellow bills, reddish-yellow shanks and feet, and yellow skin. Adult males weigh about 9 pounds; adult females weigh about 8 pounds. In one season, each female will lay about 160 eggs; often Pekins are nervous and are not good mothers.

Aylesbury

The Aylesbury is as popular in England as the White Pekin is in California. Aylesburys have white feathers, white skin, flesh-colored bills, and light orange legs and feet. They are slightly larger than the White Pekin (8 to 10 pounds), and in England they are often considered a deluxe table bird because of their light bone and creamy flesh. Egg production and fertility are normally lower in the Aylesbury than in the Pekin. The Aylesbury hen is less nervous than the Pekin hen, but she is also not inclined to incubate her own eggs.

Muscovy

The Muscovy, which does not appear to be related to other breeds of ducks, does not quack and does not have feathers on the face; there are no curled feathers in the male's tail. The incubation period is between 34 and 36 days, compared with 28 days for most ducks. Matings with other breeds result in sterile ducklings. *The American Standard of Perfection* lists three varieties of Muscovy: blue, colored, and white. The face is featherless and bright red; the male has a knob on the top of the head; the skin is white. Adult males weigh from 10 to 12 pounds—adult females, close to 7. Up to 17 weeks of age, the Muscovy produces meat of excellent quality. As a layer, it does not excel; however, it is an extremely good setter and often raises as many as 30 ducklings per hatch. Because of its silence, its inclination to set and brood, and its meat quality, this breed is popular in small flocks.

MUSCOVY

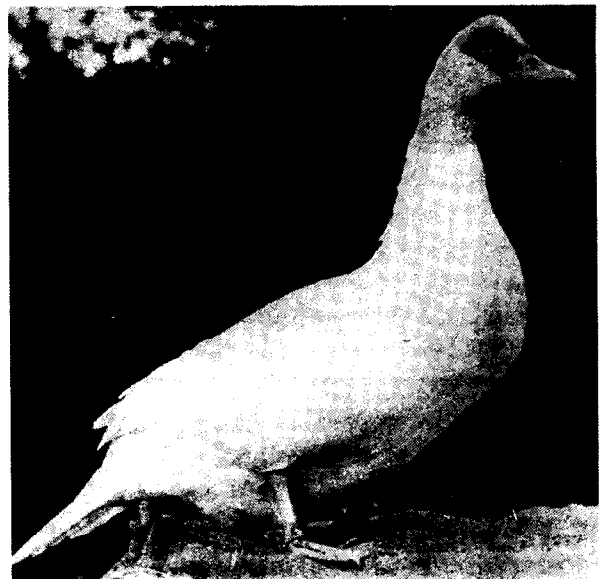


Photo courtesy Department of Agriculture and Fisheries, South Australia

KHAKI CAMPBELL



Photo courtesy Department of Agriculture
and Fisheries, South Australia

Khaki Campbell

Amazing egg production has been recorded by Khaki Campbell ducks. Selected strains have averaged nearly 365 eggs per bird per year. This is a small duck; both males and females weigh close to 5 pounds. The males have brownish-bronze lower backs, tail coverts, heads, and necks; the rest of the plumage is khaki-colored. They have dark green bills and dark orange legs and feet. Females have seal-brown heads and necks, khaki plumage, greenish-black bills, and brown legs and feet. Two additional varieties of this breed are recognized in England: the White Campbell and the Dark Campbell.

Indian Runner

The Indian Runner, an East Indian duck whose egg production capabilities were further developed in Western Europe, today rates in egg production second only to the Khaki Campbell duck. A small breed, its mature males and females average close to 4½ pounds.

The duck is characterized by its upright carriage. Unlike other breeds, it has no pronounced shoulders and little depth of body. Viewed from the front, the body appears as a gentle and gradual expansion of the neck. Excited, the duck often stands perfectly upright, and in this position it forms a perfectly straight line from the head through the feet. The wings are small and are carried closed, crossing over the rump.

Three varieties of Indian Runner are recognized: white, pencilled, and fawn and white. Each variety has reddish-orange shanks and feet.

Cayuga

A black-colored American duck weighing between 7 and 8 pounds when mature, the Cayuga is a hardy, thrifty egg producer that dresses clean and provides a good carcass for roasting.

Crested

A medium-sized white duck (adult males average 7 pounds; adult females, 6 pounds), the Crested duck is characterized by a crest of feathers attached to the back of the head. One drawback: a gene carried by all individuals allows only a percentage of the fertile eggs to hatch. Two-thirds of the ducklings that hatch should develop crests.

Buff or Orpington

The Buff or Orpington is a medium-sized breed that can be an excellent egg producer, a good market duck, and an exhibition bird of merit. *The American Standard of Perfection* lists this breed as the Buff duck; in England the Buff is one of the four varieties of Orpington ducks. The duck is buff in color, with brownish-orange bill and orange-yellow feet. Adult males average 8 pounds; adult females, 7 pounds.

Blue Swedish

A medium-sized thrifty forager and a good roasting duck, the Blue Swedish duck hatches and raises its offspring effectively. Maintenance of the blue color is difficult since it is not a dominant color, but one resulting when black and splashed-white colored Swedish-type ducks are mated. The duck has blue plumage, an inverted heart-shaped bib of white on the lower neck and upper breast, a blue head and bill, and orange-to-brownish orange shanks and feet. Adult males weigh about 8 pounds; adult females, 7 pounds.

Rouen

A very popular breed, the Rouen carries attractive feather patterns and desirable body proportions. Grown males weigh close to 9 pounds; grown females, 8 pounds. This breed, although slow to grow, is a good forager and produces a quality roasting duck. The feather patterns carried by the male and the female are sex linked. The male's color is similar to that of the male Mallard; the female's coloring and pencilled feathers resemble partridge plumage patterns found in chickens.

Mallard

The Mallard, a native wild duck of North America, has been easy to domesticate, and today it is on menus of hotels and restaurants and is used on some hunting preserves. Ducklings, brooded under artificial conditions, tend to become tame and heavier in weight, so that they are less interested in flying than are those raised with their mothers. The adult drake weighs about 3½ pounds and has a dark green head with a distinctive white neck ring. The adult female weighs about 3¼ pounds and has predominantly brown-colored plumage.

MALLARD

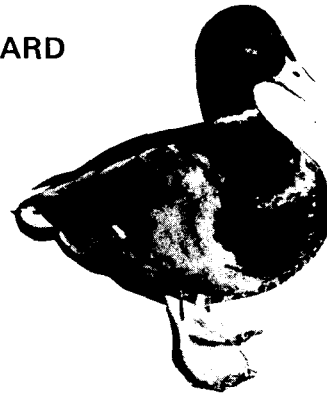


Photo courtesy Ministry of Agriculture, Fish, and Food, London

Call Duck

Often described as a bantam duck because it is small and compact, the Call duck becomes oversized and loses its compact appearance if hatched too early or overfed. Delicate at birth and normally requiring special handling during the first few days, the breed possesses good natural flying ability. There are two varieties: White and Gray. The color pattern of the Gray Call is similar to that of the Mallard.

East Indie

A breed of miniature black duck, admired for its small size and its black color, the East Indie possesses good natural flying ability. Its husbandry is similar to either of the Call varieties. Adults weigh about 2 pounds.

Mandarin

The beautiful feather patterns and colors of the Mandarin duck make this breed a popular addition to a rural home environment. In Asia it has been semi-domesticated for many years and has proven a hardy breed that will become tame in captivity. The eggs hatch after 29 to 31 days incubation. The adult male weighs about 1½ pounds; the adult female, about 1 pound.

HOUSING

Mature ducks do not require housing, but they will lay better and eat less feed if given some protection. Adult ducks that are confined at night should have 5 to 6 square feet of floor space per bird, one nest for each four females, and an artificial light to prevent piling at night. Any simple rain shelter with protection from the prevailing wind is adequate. The floor can be of dirt, wood, or concrete. Straw bedding should be provided inside sheds or houses, and this should be kept reasonably dry by adding or changing straw as necessary. Ducks *do not* require swimming water, but if they are allowed to swim, the pond should be kept fresh by constant addition and overflow of water.

Ducklings are best raised in areas away from adults. Clean houses and yards that provide adequate shade and no standing water are recommended.

All ducks (especially ducklings) should be protected from such predators as rats, racoons, skunks, cats, hawks, crows, and bass.

MATING

Ducks saved for breeders should have desirable weight, conformation, and feathering. Young, vigorous ducks and drakes from parents that gave good egg production, fertility, and hatchability are the best breeders. One male may be mated with five or six females. The male should be with the females a month before eggs are to be saved for hatching.

SEXING

The sex of ducks can be determined at 1 day old. Pressure applied to the vent area will cause the sexual organ of the male to extend and become identifiable. At six weeks in some breeds, a difference can be noted between the sound of the female—a definite “quack”—and the voice of the drake, which is lower pitched and slightly rougher. In most breeds (not the Muscovy) the male develops curled tail feathers at the time it grows its adult plumage. Size is also helpful in determining sex, since the male in all breeds is usually larger than the female.

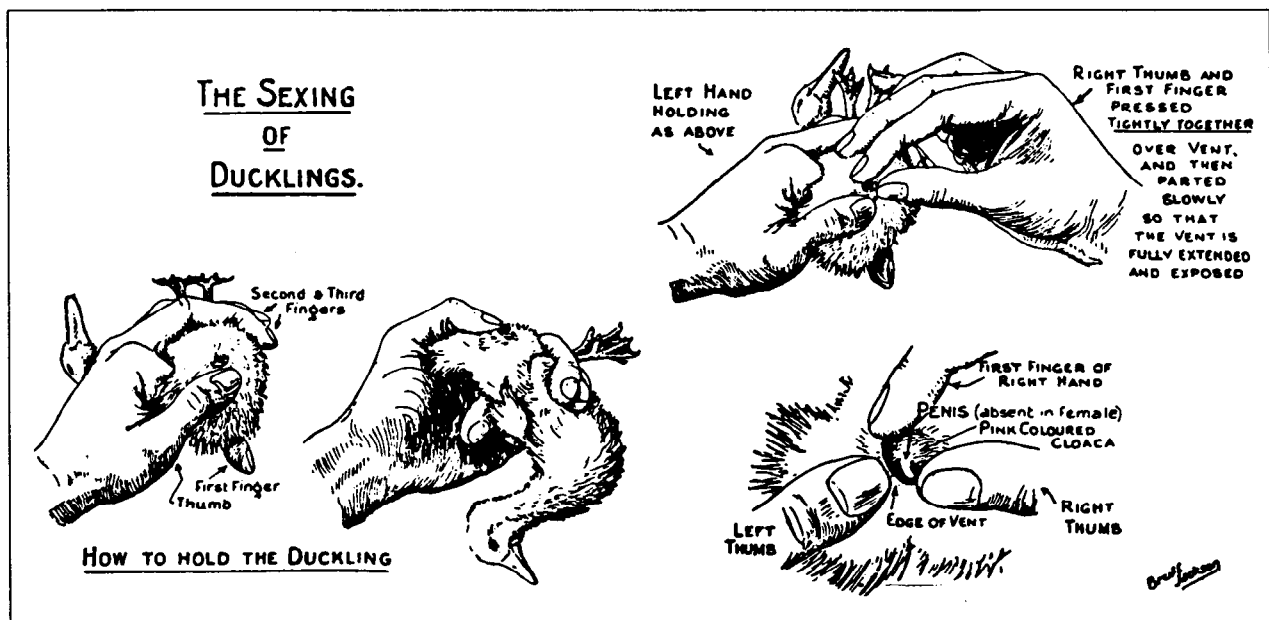


Photo courtesy Beacon Milling Company

EGG CARE

Duck eggs for table use should be dry cleaned, refrigerated soon after gathering, and cooked prior to being eaten.

When eggs are to be incubated, nests (12 inches wide by 14 inches long by 12 inches high) with clean bedding (rice hulls, shavings, etc.) should be provided. Hatching eggs should be gathered each morning, cleaned with sandpaper or steel wool, and stored in a cool place (50° to 70° F and 75 percent relative humidity).

When you want ducks to set and hatch their own eggs, allow three or four eggs to collect in the nest, mark them with a pencil, and then remove the fresh eggs as laid and place them in a cool storage area. When the duck begins to set, replace the marked eggs with the freshest eggs available.

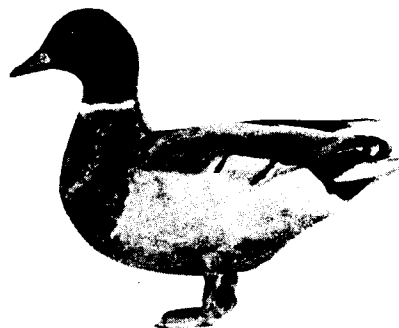
Eggs which are more than 2 weeks old, cracked, misshapen, or abnormal in size will not hatch well.

INCUBATION

You can incubate eggs naturally (under a female) or with an artificial incubator. Natural incubation requires a broody duck or chicken hen. Some breeds incubate more effectively than others. If females do not become broody, try leaving eggs in the nest. If this fails, it is probably best to try a different female or artificial incubation.

To set your duck or hen, prepare a nest well bedded with straw or shavings in a quiet and secluded area. Darken the nest by partially closing the entrance with a cloth or canvas flap. Put as many eggs in the nest as your female can cover comfortably (eight to ten for a medium-sized hen) and then allow her to start setting. To be sure you have selected a consistent setter, take her off the nest a few

GRAY CALL DRAKE



A Gray Call drake shows the compact type and characteristic level carriage of this breed, even though his head is not quite as typical as that of the female pictured.

Photo courtesy American Bantam Association

times and see if she returns to the nest promptly. Be sure to provide feed and water close to the nest. It is advisable, but not essential, to separate setting birds from the rest of the flock. Most duck eggs hatch in 28 days (Muscovy, 35 days; Mandarin, 29 to 31 days).

To incubate eggs artificially, you can buy or build an incubator. If instructions are available with the incubator, follow them exactly. Duck eggs should have high humidity during the hatching period. In small incubators it is advisable to sprinkle the eggs daily with warm water during the last 3 days of incubation. For additional information on incubation and sources of incubators, see Cooperative Extension Leaflet 2653, *Incubating Eggs in Small Quantities*.

NATURAL BROODING

In natural incubation, broody chicken or duck females will brood ducklings effectively. Ducklings and their mothers should be kept in clean areas away from other ducks and protected from predators. Feed and water should be available to both the mother and the baby ducklings soon after they leave the nest. By the time the ducklings are 3 weeks old, the mother can normally be returned to the flock.

GRAY CALL DUCK



An excellent Gray Call female is seen here. Although in somewhat startled pose, she nevertheless has the "buffle" head so important in true Calls.

Photo courtesy American Bantam Association

ARTIFICIAL BROODING

Ducklings can be taken from the incubator soon after they are dry and placed under a heat lamp or a brooder stove. For the first few days, restrict the ducklings to an area close to the brooder, the feed, and the water. A dim light at night will also help curtail wandering, as well as reduce the tendency of birds to crowd.

Initial brooder temperatures should average between 85° and 90° F. Observe the birds closely. If they huddle and are noisy, the temperature is too low; if they pant or stay away from the heat, the temperature is too high. Brooder temperatures should be reduced gradually, so that by the time the birds are feathered the heat can be discontinued. Brooding areas should be dry and draft-free. Cover the floor with a 4-inch-deep layer of absorbant litter, such as pine shavings or chopped straw. If damp spots develop, the moist material must be removed and replaced.

Provide ½ square foot of floor space per bird for the first two weeks, 1 foot of floor space the third and fourth week, and at least 2 square feet of floor space during the remainder of the time the young birds are confined.

FEEDING

Ducklings should be fed as soon as they are placed under the brooder and never later than 36 hours after they are hatched. All ducklings can be started on a commercial duck or chick starter mash that contains about 20 percent protein. If you prefer, you can moisten the mash with water or skim milk. During the first few days, place mash on egg flats or in shallow box lids lined with rough paper. (Do not use a slick surface because the duckling may slip and damage its legs.) Once the birds have learned to eat, they should eat from troughs or hoppers. Be sure ducklings do not get any spoiled or moldy feed; discard wet mashes over a day old.

Use waterers that the ducklings cannot get into. (Ducklings still in the down stage chill easily when allowed to become damp.) Poultry waterers that permit the ducks to get their bills wet to the nostrils are satisfactory. Place the waterers on raised wire platforms or metal grills that prevent the ducklings from gaining access to damp litter which develops around the fountain. Clean the waterers every day.

After two weeks on starter rations, ducklings can be switched to a pelleted or mash growing ration, which can be supplemented with chick-size grain and young pasture or cut greens. If the birds appear to be too fat, restrict the amount fed daily. As soon as the birds begin laying, they should be fed egg-laying mash or pellets. One month prior to the incubation of fertile eggs, the adult stock should be fed a breeder ration. It is advisable to feed oyster shell free choice to ducks if the laying feed has less than 2½ percent calcium and they continue to lay for more than a month.

A common practice with ducks is to locate the feeders some distance from the waterers. In this way, the ducks exercise constantly by moving back and forth between the feeders and waterers.

DISEASE PREVENTION

Ducks raised in small numbers and away from other ducks normally do not encounter major diseases. Providing protection against extreme temperatures, access to clean housing and equipment, quality feeds, and regular attention also helps preserve flock health.

An occasional death may be expected, but if two or more birds die on the same day, you should suspect a disease problem and prompt action should be taken. Affected birds should be submitted to a diagnostic laboratory or a veterinarian familiar with the disease problems of ducks, and the veterinarian's recommendations should be followed as completely as possible. Dead birds should be removed from pens promptly and placed in fly-tight cans or buried at least 1 foot deep.

KILLING AND PICKING

Starve a duck for at least six hours before killing it, but do not restrict water. To kill, cut the duck's throat in the soft spot where the head joins the neck. Do not remove the head. It is important that the jugular vein be severed and that the bird be allowed to bleed.

A bird to be picked dry should be vented soon after bleeding. Venting is the procedure of removing the feces from the vent of the bird by applying pressure to the abdomen. For best results, hold the duck's tail downward. Once vented, the bird should be stored for up to 12 hours in a refrigerator at a temperature of about 33° F. Refrigeration allows the skin and the flesh under the skin to firm so that the feathers can be removed without tearing the skin.

An alternative to dry picking is to immerse the freshly bled duck in water heated to 140° to 160° F for three minutes or the time required to release the feathers. If you heat the

water to boiling and then let it stand while you kill the duck, the temperature will be about right. Add a small amount of detergent to the scalding water to better wet the feathers. Hold the duck by its bill and keep it completely immersed and moving in the water until the feathers on the head can be easily removed.

After removing the feathers, singe the duck's body to remove any remaining hair or down. When many ducks are to be picked at one time, wax picking is often used, a procedure *requiring* the use of special duck waxes. Once most of the duck's feathers have been removed, the bird is immersed in a water solution heated to 165° F which is covered with a 1-inch layer of heated liquid duck wax. The duck is then removed from the wax solution and dipped in a chilled water bath to harden the wax. Peeling the wax from the bird removes remaining pinfeathers and down. If the carcass is not clean after one wax procedure, the process can be repeated. The duck wax can be separated from the feathers with a screen and melted again.

Duck feathers and down, following sorting, washing, and drying, may be used in pillows, quilts, and cushions, as part of household decorations, and for certain recreational equipment, such as arrows and fishing flies.

MARKETING

Small producers will need to develop local markets for ducks. Ducks may be sold to local stores or restaurants, to neighbors or at farmers' markets. A 7- to 9-week-old meat-type duck will weigh between 5 and 7 pounds and yield an oven-ready carcass weighing between 3 and 4½ pounds. Roasting ducks are older ducks, often weighing between 6 and 9 pounds. Other markets include those for ducklings, incubated eggs, hatching eggs, and fresh eggs.

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