



RAISING JAPANESE QUAIL

~ From Egg to the Table

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I have been a fan of Coturnix Quail (Japanese Quail) for quite some time now. They are fast producers and very healthy birds for the market. I received my first quail in 2006 at Oregon State University and ever since fell in love with the beauty of plumage, size, and eggs. I would not trade these birds for the world since they have many health benefits and their meat is lean and delicious.

Coturnix are well known since they have a fast turn out rate. They hatch in 17 days, mature in 6 weeks, and can be butchered in 9 weeks. They have many health benefits in their eggs, can be used in laboratories due to their fast maturing rate. Coturnix are more docile than other quail species since they have been so domesticated overtime. They do make great pets and many people who cannot

have chicken due to their location have a Coturnix as their laying source or companion. Coturnix can be housed in smaller confinements than poultry. They require little space to procreate. Like their cousin, the Chinese Blue Breasted Quail, they do make good aviary birds, since they are bottom dwellers and stay on the ground. They can be housed with parakeets, doves, and finches in the same environment for the avian fancier.

The Egg

Being only 9 grams, the egg is very remarkable. It is ovoid, small, and smooth. The color is variable but many are of speckles. Each hen tends to mark her egg with her own bloom and tint. Coturnix lay their eggs at night, in comparison to chicken to laying their eggs in the morning. The Coturnix egg is very nutritious such when compared to the average chicken egg, they contain 6 times more vitamin B1, 15 times more vitamin B2, 5 times more phosphorus, and 7.5 times more iron. Quail eggs are also very high in vitamin D.



Above: Coturnix eggs.

Left: 7 Jumbo coturnix eggs - 90 grams.

Raising the Coturnix for Egg Production

A cross of two unrelated lines is recommended to combine the meat traits of a heavy weight male with the high egg production of a smaller female line. The idea is to avoid a possible loss in egg production that might accompany selection for larger body size. This is similar to the breeding selection of Jumbo Pekin Duck. It is an attempt to have the best of both worlds. We select breeders that lay an egg of 14 grams or more

and replace breeders every 6 months to keep them producing frequently. A hen will lay her entire lifetime, so we either let the older females rest or re-evaluate breeding plans with them.

Coturnix Quail lay an average of 300 eggs a year. This is with artificial lighting of 14-16 hours to keep the days longer.

Raising the Coturnix for Meat Production

The Japanese Quail grow at a rapid rate but in a slower sense than the broiler chicken. From a newly hatched chick of 8 grams they can grow up to 275 grams by six weeks of age. Both sexes are weighed to standard according to the author. The female will be slightly heavier due to her functioning ovary and oviduct but the weights are similar. The full size of the Coturnix is not achieved until they are 10-12 weeks of age. Body weight can increase as much as 30% in the period from 6-12 weeks. Depending on strain,



it is more realistic to say 10% is increased, however. To keep the birds growing past 9 weeks, corn and supplements are added, but it is not feasible to some breeders, therefore the cutoff weight is determined at 9 weeks of age. The Jumbo Coturnix varieties are used as a table bird. They are raised like the standard varieties, but grow to a heavier weight. We breed Jumbo Coturnix to a standard. We start weighing birds at 3 weeks of age (21 days) and stops weighing at 9 weeks (63 days). This is when we decide if the coturnix will be a suitable breeder or culled from the flock.

Breeding for Color

Just like chicken and ducks, Coturnix come in an assortment of color. Selectively breeding in colonies of like color will help the bird breed more true to color. There are many fanciers out there like us that want to see a standard out there in the future for quail.

Color Varieties in the United States Currently (many mutations and variations are being created all over the States and at Stellar Gamebirds as well:

- Pharaoh
- Jumbo Pharaoh
- Texas A and M
- English White
- Italian
- Manchurian
- Italian Tuxedo
- Tibetan
- Rosetta
- Scarlett
- Red Range
- Roux Dilute
- Tuxedo
- Autumn Amber



Right: English White Coturnix.



Left: Autumn Amber.

Below: Italian.



Left: Texas A and M Coturnix.

Below: Manchurian Coturnix.



Incubation of Coturnix Quail

It is best to set up your incubator one week in advance prior to receiving your eggs. There are many incubators on the market. For classrooms and hobbyists, Brinsea and Hovabators are recommended. For those serious hatchers, the cabinet incubators are the ones to be used. It is recommended placing an extra thermometer that did not come with the incubator, as sometimes the ones that do come with it become faulty. A faulty thermometer will affect the hatch rate for incubating eggs. The correct temperature for quail eggs is 99.5 degrees F.

Right: Basket of chicks.

Brooding Coturnix Chicks

Small brooder set up:

It is best to set up brooders before your eggs hatch. That way the newly hatched chicks have something warm and cozy to go into after their stressful adventure out of their shells. For Coturnix quail, depending on the numbers hatched of course, fish tanks work well. 10 gallon tanks are suitable for 10 chicks for the first 2 weeks of brooding. A heatlamp is attached to the top. A 60-75 watt bulb is sufficient but depending on the location of the brooder, a 100 watt bulb may be needed. The commercial brooder lamps are too hot for the small Coturnix brooding setting. Make sure there is a screened lid as the birds grow fast and can fly by three weeks of age. The bottom is lined with a bedding that absorbs well. Pine pellets work well as they expand when wet and it takes longer to spoil. The non stick shelf liners work well too but needs to be changed more often.



Above: Example of a larger brooder.

Larger brooder set up:

Larger fish tanks will work for a larger hatch, however they may be harder to clean due to weight. Plastic storage containers can be used. For the lid, a rectangle is cut out. Hardware cloth is measured and stapled over the "hole." A heat lamp of 60-75 watts is then placed on top to promote warmth. Due to the location of the brooder, a 100 watt bulb may be used. Larger farms use battery brooders as their quail chick brooders. These work great for large numbers.

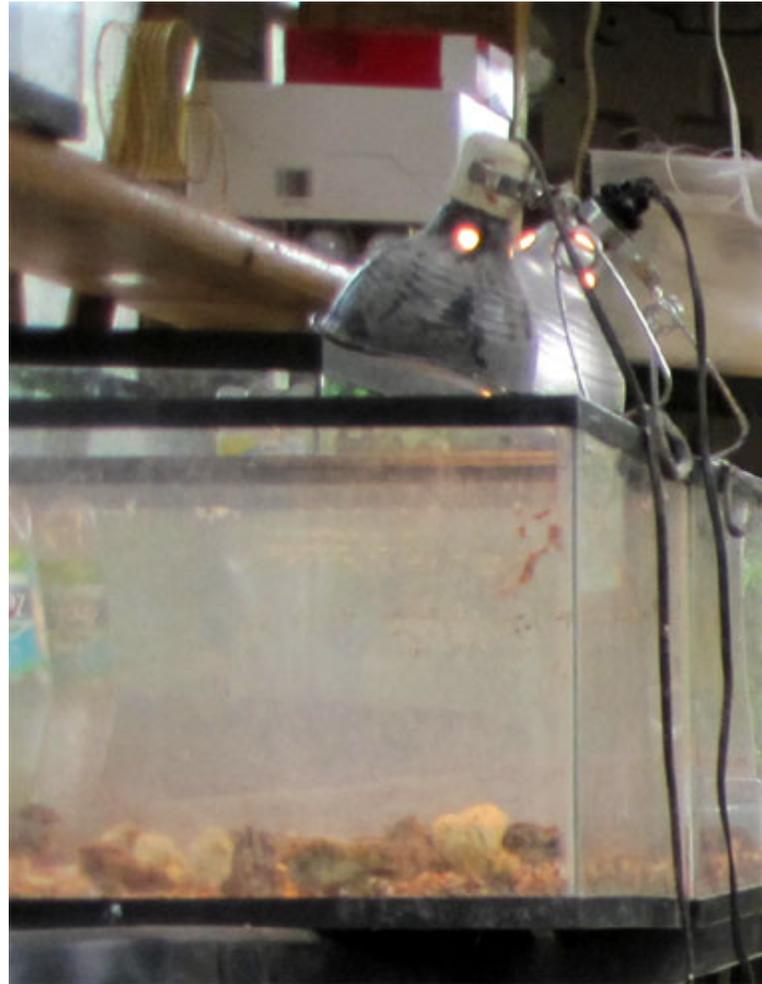
After a couple days on the softer bedding we move our chicks to a mesh flooring.

Right: Example of some brooders.

Nutrition for Chicks

Coturnix chicks need some extra care at day one. Once they are dry, they should be removed from the hatcher and placed in their brooders. They do not have the same reserves as poultry and waterfowl and need food and water right away. Protein is essential for Coturnix since they are fast growing birds. A minimal of 24% gamebird starter is recommended. Due to regions,

medicated starter may be only offered, therefore check with the feedstore to make sure the feed is unmedicated. One can use chick starter unmedicated or turkey grower as an alternative if a gamebird starter is not able to be ordered in.



Left: Grow-out pen.

Because Coturnix are quite small at hatch, we blend the crumbles to a cornmeal consistency. This aids in their digestion and this is where the Jumbo Coturnix can grow to their potential. If one does not have a blender and a small amount of chicks to feed, a mortar and pestle will work. Oyster shell is also given to young birds in the form of calcium carbonate. This is ground up as well and offered in addition of the feed.

Jar lids make great food dishes for the day old chicks. A jar lid full of water with marbles inside provides hydration

and stimulation to drink as the birds will peck at the marbles and in turn drink the water. Mason jar waterers with the quail bases can be used as well or chick bases with marbles added in. Craft stores sell marbles in large quantities.

Gender Identification

Gender identification has become more complicated as the Coturnix come in many varieties. A few varieties can be feather sexed at 5 weeks of age, others have to be vent sexed at sexual maturity.

Right: Jumbo quail.

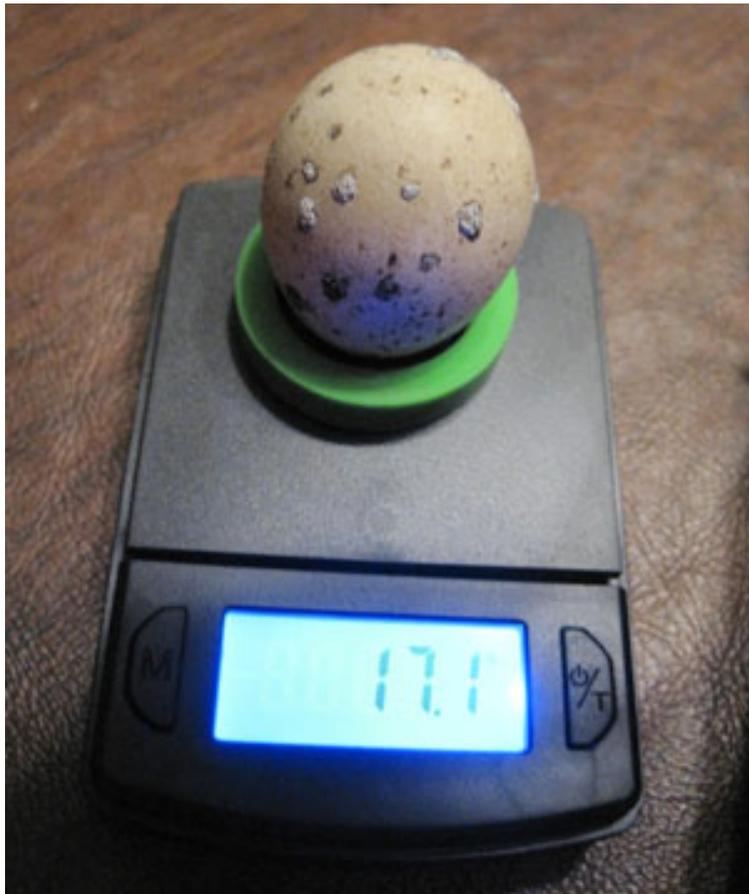


Breeder Management

At 6 weeks of age, the chicks can breed. It is amazing how fast these birds grow up. Coturnix are creatures of habit. They do not like change. Any environmental change, such as moving cages, moving feed dishes or waterers, reduces egg laying cycles. Bright light, a new noise, even the presence of an animal will cause them to reduce their laying. Since they lay in the evening, paying attention to them in the morning time and adhering to a strict schedule will in result be worthwhile for maximum production. Birds producing hatching eggs require a high protein feed to maintain a high rate of lay. In warmer climates, the protein level should be increased because warm weather tends to reduce amount of feed consumed, hence reducing protein intake. Fertility increases with higher protein as well.

Right: Example of some cage systems.

Below: Selectively breeding layers, that lay an egg of 14 grams or more; in this case 17 grams!



Nutrition for Breeders

Feeding the Breeders a high protein gamebird diet is essential for optimum production. We feed 30% gamebird starter and add protein as snacks. The breeders get thistle seeds and alfalfa sprouts as added treats throughout the breeding season. Fresh water must be given at all times.

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Below: Jumbo Pharaoh next to Pharaoh.

