Raising Quail for Meat and Eggs:

Protein Production on 1/3 of an Acre

BRAD DAVIES

Biography

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We would also like to thank Bill Mollison, Geoff Lawton, Mark Shepard and our other teachers for changing the way we think.

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Why Quail?

I decided to start raising quail for a few reasons:

1.) Resiliency

When I began thinking about household resiliency, food production seemed to be a good place to start. Looking at my grocery bills, I realised my major expense was the purchase of protein products like meat, eggs and cheese. I decided that raising livestock might be a good way to increase financial resiliency as well as food self sufficiency.

Because I am set on being as resilient as possible, I am simply not willing to put forth the time and effort of raising and caring for livestock that will only have the potential to supplement 25% of my daily needs. If I'm raising something, I'm raising it to replace the need to purchase something else, not to lower the amount I need to purchase.

Quail lay smaller eggs than chickens, but they sure are prolific! Over 100 quail eggs plus a chicken egg for scale.

Overhead view of the author's homestead. Raising quail is part of his plan for establishing an example site for small scale permaculture systems in a cold temperate climate. The narrow 1/3 acre backyard provides a variety of challenges for raising livestock while developing an ecosystem that provides for human needs as well.

2.) Size constraints.

Living on a third of an acre makes it important to select elements that will not be stressed in small spaces and also not detrimentally effect the ecology. Larger livestock, like cows, pigs and sheep did not seem appropriate, because of their space needs. I decided I would not be able to provide for their needs and maintain a productive garden on my site. For large animals I decided to stick to hunting deer and help manage a wild population.

3.) Regulations

Living in the suburbs, I face regulations from authorities regarding what I can and cannot raise on my land. As I knew I did not want to raise larger livestock, I began looking at my options for smaller animals. Rabbits, ducks, and chickens seemed to be the most obvious choices.

I could probably get away with raising some chickens or ducks without anyone complaining, but there is no way that I could raise enough to supply my households needs on a 1/3 acre lot. Currently we consume the equivalent of 15 chicken eggs per day. Unfortunately rabbits don't lay eggs, contrary to popular depictions of spring fertility rites (sorry Easter bunny), so I decided I needed to raise some form of poultry.

Upon researching the various options I had to add poultry to my system, I stumbled upon the book Micro-Livestock: Little known Small Animals with Promising Economic Future, a link to which you may find in the references. These quiet little birds seemed like the perfect option for my situation. They had the potential to provide all of my egg needs, and there were no specific or local ordinances restricting them. After three years, they have performed even better than my expectations.

The following information comes from countless hours of research as well as my personal experience raising quail. I hope it will be a valuable jumping off point for developing your own quail system for meat and eggs.

Why the Breed?

Like most domesticated animals, there are a number of quail breeds with a variety of characteristcs. For quail, there are two distinct species, Old World and New World quail. Although these species have physical and behavioral similarities, there are some important differences.

New world quail, such as Bobwhites, grow larger than old world quail, but they take twice as long to reach mature size (~16 weeks) than Old World quail (~7-8 weeks). Also, Old World quail lay 200-300 eggs a year, while Bobwhites lay around 150.

Bobwhites are more wild and prefer a fly pen once they have developed. Old World Japanese quail have been domesticated for thousands of years, and are well adapted to confined spaces.

For these reasons I chose to raise a variety of Japanese quail. If you want to raise quail in a more natural environment, Bobwhites, Tennessee Reds or another new world variety might be a better choice. Each breed has strengths and weaknesses; the one that works best depends on the situation.

About the Breed

Japanese quail (Pharaoh Variety)

Old World quail are native to Asia and Europe. In the wild, Old World quail prefer temperate climates, with northern habitats reaching 38°N. They are omnivores, eating a mixture of insects, seeds and grains. They have been domesticated for thousands of years, especially in Asia and Oceania. They continue to be raised widely and are popular in Japan.

Originally raised for ornamental value as songbirds, in the early 20th century Japanese breeders selected for meat producing domestic birds. During World War II these birds nearly went extinct, but extensive breeding has since created a resurgence for these quail.

Female Pharoah quail (left) have a speckled breast. Males (right) have a rust colored breast.

Aside from their rapid growth and rampent egg production, Japanese, or Coturnix, quail are hardy, disease resistant birds that are adapted to small spaces. The females begin laying eggs as early as 5-6 weks old and reach full production in 7-10 weeks. Highly productive females may lay 250-300 eggs in a year, however after the first year, fertility and productivity fall off greatly. Eggs average 10 g in weight, and chicks weigh a mere 5-6 grams when hatched.

I chose the Pharoah variety of Japanese quail because of the available breeds, they had the highest potential for meat and egg yields.

Process Overview

1) Incubation - 17-18 days

Japanese Quail need to be hatched in an incubator, as the instinct to brood has all but been breed out of them. They require the same conditions as chickens, with a slightly shorter hatch time. Most eggs will hatch in 17-18 days.

2) Brooding - 17-21 days

A brooder is a heated container for the birds to live in. The temperature should be kept in the mid 90's until the birds start to feather out. The ambient air temperature for your brooder will determine the wattage of bulb you need to achieve this temperature.

3) Grow out - 21+ days

Once the birds have reached 21 days they are feathered out and no longer require supplemental heat. At this stage you can put them into a grow out container of your choice. This can be any container or system from a cage battery to a quail tractor, just something to contain them where they can eat, drink and grow.

Housing Requirements: Incubation

Equipment

1.) Incubator

Any incubator will work as long as you keep everything in the correct range, which is easier said than done. I have personally used a Little Giant and a Bower Top Hatch incubator. Both gave me similar results. In the future I will move up to a larger capacity cabinet style, probably homemade.

2.) Thermometer

You'll need a few of these. Make sure you calibrate them and are measuring the temperature where the eggs are.

3.) Hygrometer

Used to measure the humidity, two is better than one. Make sure it's calibrated, Google "hygrometer salt water calibration" for instructions on how to make sure it's calibrated correctly.

Process

Quail require the same incubation conditions as chickens, with a slightly shorter hatch time. Most eggs will hatch in 17-18 days. The eggs should be kept at 99.5°F if you're using a forced air incubator, 101°F for a still air incubator. Humidity needs to be between 25%-50% for the first 14-15 days. The last 3 days are called the "lockdown" period and the humidity is raised to 60%-75%. The eggs must be turned at least 3 times a day. An egg turner is recommended. Cease turning during the lockdown period. Do not open the incubator during lockdown! Chicks can live for up to 24 hrs in the incubator so wait until there are a few of them before you open it and quickly get them out. Read and follow the instructions of your incubator for best results.

Quail Eggs inside an incubator. The dual thermometer/hygrometer is placed at the same height as the eggs for enhanced accuracy as the air may stratify in the incubator. Additionally, it is placed in a location where it is easily visible without opening the incubator.

Additional considerations

Incubation is by far the hardest part of raising quail. If you have hatched other birds out, you should be fine. If you have never hatched anything before expect failures. Everything must be precisely kept in the aforementioned ranges, close enough works for horseshoes and hand grenades, but not incubation.

Egg storage is an important variable in the hatchability of your eggs. The general internet wisdom is to hatch eggs that are no more than 10 days old. However, if kept in the proper conditions this can be extended with only a slight decline in hatchability. I personally know a commercial operator who keeps his eggs for 30 days and still achieves an 80% hatch rate using a commercial setup. Hatching eggs should be stored pointed end down, in a cool, temperature stable place. Basements or cellars are ideal for this. Anywhere with a stable temp that doesn't get over 75-80°F should be fine. Also, turning the eggs that have not hatched will help increase the hatch rate. An extra egg turner works very well for this.

Troubleshooting

Troubleshooting bad hatches is extremely frustrating. When you look up troubleshooting manuals on the internet or with your incubator instructions it's a bit of a joke. Basically, recheck everything. Calibrate your thermometers and hygrometer. Make sure the eggs are stored properly. Make sure there is an adequate number of males to females; 1 male for every 2-4 females. Make sure the light cycle is correct for the breeders, with a minimum 16 hrs of light. Make sure the breeders are healthy, ect... Pretty much recheck everything, then try again.

Housing Requirements: Brooding

Temporary Rubbermaid® brooder. I keep one of these next to the incubator so I can place chicks directly into the warm dry environment. Once a dozen or two are in it I transfer them to a larger brooder.

Equipment

1.) Brooder

A brooder is nothing more than a heated container for the birds to live in. The temperature should be kept in the mid 90's until the birds start to feather out. The ambient air temperature for your brooder will determine the wattage of bulb you need to achieve this temperature. You can use anything from a 75w flood light up to a 250w heat lamp. Make sure your socket and wire can handle the wattage of the bulb you are using! I use a 75w red flood light most of the time, and add a second one in the winter. I also have mine wired to a dimmer switch for more control, but that really has been unnecessary. As long as the brooder is large enough, the birds will self-regulate and move closer or further from the bulb as they see fit.

My brooder is 2'x4' 13" tall made from scrap plywood. Rubbermaids® and stock tanks also work well.

2) Feeder

In the brooder, Any type of chick feeder will work, store bought or homemade. I prefer the largest capacity feeder that I can fit, to make sure they never run out of food. If you use a feeder that the birds need to stick their heads into, it will reduce wasted feed as dropped food will stay in the feeder.

3) Water

A variety of items may be used for water, from a bowl to an automated system. I use a gravity chicken waterer for a few days in conjunction with my automated system. After the first few days I remove the chicken waterer and rely on the automated system. If you use a bowl or chicken waterer, it is recommended that you put marbles or pebbles in the bottoms so very young birds don't drown. I ignored this advice, until one day I checked the brooder and there were 4 little quail dead with their heads underwater. It was a rather awkward sight, only missing some white Nikes and Kool-Aid.

4) Bedding

It is recommended that you keep some sort of dry bedding for the birds to walk on. Pine shavings, shredded paper, perhaps leaves or straw, use what you can get. For the first couple of days lay down some paper towel. Their legs are very fragile and if they slip, it might end in a damaged leg which is game over for that little bird.

Process

Once the birds start to hatch, wait until there are a bunch of them. Remember you do not want to open the incubator during lockdown any more than is absolutely necessary. I have also found that if you introduce birds into the brooder hours apart they do better in groups rather than individuals. If you notice all of the birds are huddled under the light, the brooder is too cold. If all the birds are pressed to the outside edge of the brooder it is too hot. If the birds are evenly spaced the temp is good enough. After the birds feather out supplemental heat can be reduced or eliminated. At this point you can move them to the grow out container, or just use your brooder as the grow out container if you want.

Be gentle! These little guys are pretty delicate when they're young.

Additional Considerations

Make sure the bedding stays dry, either through changing it or adding more. Quail have small feet that can easily get damages if they are kept in wet or mucky conditions. Depending on your stocking density you might need to adjust the bedding frequently.

The birds are golf ball- tennis ball sized when in the brooder. I have kept stocking densities of up to 12 birds / sq foot without problems. These were all birds of the same size, and from the same hatch.

Occasionally you'll check the brooder and find one or two of them mysteriously gave up the ghost. It happens. Try to look at it from the perspective that you just saved some feed on birds whose genes you probably didn't want anyway. This usually doesn't happen anymore after the first week.

Fore!

Housing Requirements: Grow Out

Equipment

After the birds have feathered out and don't require heat anymore you can move them to the grow out pen. The grow out pen can be any container of your choice. This can range from a cage battery to a quail tractor, just something to contain them where they can eat, drink and grow. A large capacity feeder combined with an automated watering system is suggested to minimize work, but not necessary.

My grow out pens are 2'x2' 9" tall, made from ½" x ½" hardware cloth.

The feeder is a 4" pipe with a slot cut out mounted on the outside of the cage. The door is made from 1"x2" hardware cloth, which allows the birds to stick their heads through to get to the food.

Each cage has its own water cup hooked up to the automated system.

Process

At 5 weeks from hatch the males will begin to "crow" at that point I graduate the culls to the freezer, I let the females keep growing until I need the space. I only cull the males at 5 weeks because I want to keep it quiet, and they annoy the hell out of me.

Front view of a grow out box.

Housing Requirements: Layers

Equipment

The pens are exactly the same as the grow out pens, except they are on an angle. The rear of the pen is 2” higher than the front, or a 1/12 pitch. This allows the eggs to roll to the front of the cage for easy gathering. Not all of the eggs will roll to the front with this pitch, and you might want to increase it to a 3” differential, or a 1/8 pitch.

My laying pens are 2’x2’ 9” tall, made from ½” x ½” hardware cloth.

The feeder is a 4” pipe with a slot cut out mounted on the outside of the cage. The door is made from 1”x2” hardware cloth, which allows the birds to stick their heads through to get to the food.

Each cage has its own water cup hooked up to the automated system.

Feeding tube on the front of a grow out box for layers.

Additional Thoughts

I have kept laying hens at a stocking density of up to 3-4 birds / sq foot, these birds were all from the same hatch and had been kept together since they hatched.

Gather the eggs before you fill the feeder up. If you do that in reverse all of the birds will be at the front of the cage trying to get the food while you're trying to get in to get the eggs.

If you get a sudden decline in egg productions check the water supply. If the water line gets plugged or something malfunctions and the birds don't get enough water they will stop laying almost immediately.

If you get spotty egg production, like hit or miss or less than you were getting, check the light cycle to make sure they are getting at least 16 hrs of light.

Other Housing

Quail Tractor

During the summer of 2013 I used an extra rabbit tractor as a quail tractor. The quail seemed to enjoy the space and being able to dig and play in the grass. The quail denuded and scratched up the area they were kept. Like a chicken tractor, I was able to successfully seed pasture seed mix after each tractor move.

Just like with a chicken tractor, how often it needs to be moved depends on many variables. These variables will fluctuate as the seasons change and the birds grow. Observational experience of how your pasture conditions rebound will be the best teacher.

When designing your tractor, be sure not to have any openings that birds can squeeze out of or under. Quail are very small. If you use an open bottom tractor, make sure that you have good ground contact all the way around. The birds can squeeze out of the bottom rather easily if the turf is rough or uneven. A top that shelters the birds from the elements and secures tightly is very important. A major escape route from my system involved birds jumping up, hitting the tarp ceiling so that it billowed up, and flying out of the space created between the tarp and the 2x4s.

Paddock Shift

I'm interested in trying this for growing out meat birds. I plan on experimenting with a number of set ups and reporting my successes and failures.

Quailtopia

Build your own system! You're only limited by your imagination and your willingness to spend money on these little buggers. Start small and scalable, make sure your plan is going to work before you start construction on your own personal Quailtropolis.

Remember to build tall or build small. Quail have powerful legs and can jump up to 3' straight up. This can lead to broken necks if the housing isn't tall enough to accommodate or short enough to discourage jumping.

Inputs

Feed

Quail are omnivores and will enjoy as varied of a diet as they can get. They will eat most things that a chicken will eat, as long as it's small enough for them to get in their beaks. I am currently feeding mine 100% store bought food with the intent to lower that as much as I can through alternative feeds.

1) Store bought feed

Store bought feed is available for raising quail. It is similar to dry dog food in consistency, and not all grain or vegetarian based. When choosing a feed you need to get at least 24% protein for good egg production. They will survive and still lay with lower protein %, but you will get smaller eggs and less often. The higher the protein % you can give them the larger the eggs and meat birds will be.

I use Purina game bird starter 27%-30% protein and have had no problems with it as a stand-alone feed. Store bought feed is compact, readily available, stores well and is affordable at ~$0.50/pound. A laying hen will eat ~1pound / month.

I have been informed that the shelf life of this dry food is 2 months, second hand from a Purina rep. While I don't doubt that it loses some nutritional value over time, I have never experienced any consequences to using "old" feed. I keep a minimum of 2 month supply on hand, knowing it probably has an additional 2-3 months of distribution time already on it before I buy it. I have never had a quail turn their beak up at it.

2) Alternative feed / supplemental nutrition

A) Black Soldier Fly larva

This looks to be a very promising feed. They turn food scrapes into protein at a very efficient rate. Good for zone 7+, but I am going to try it anyway in zone 6.

B) Meal worms

This might be my alternative to B.S.F.. Meal worms are somewhere in the 40% protein range, and are very low input. I will be experimenting with this soon.

C) Sprouts

Freshly sprouted grain, 2-4 days old, before it really turns into a plant. This is something I would like to try, and will be trying in the early summer.

D) Ticks

Apparently quail love to eat ticks. I am not going to propagate ticks, but if you have a surplus of them in your yard, tractoring quail might be the solution.

E) Seeds

Any tiny seed might have the chance at becoming quail food. Lambsquarter, millet, lettuce, anything with a small seed might be worth trying, especially if it’s abundant and can be grown with little to no inputs.

F) Other insects

Maggots, larva, beetles, ants and all types of creepy crawlies have the potential to be converted into delicious quail meat.

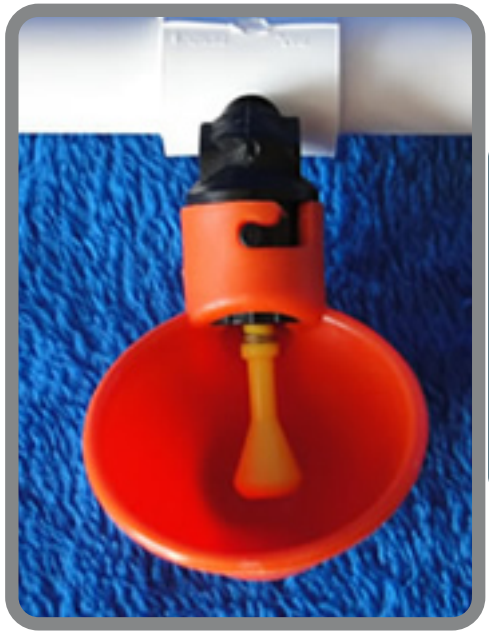
Water

There are many different options for providing your birds with water. Each one has its own set of pros and cons. From bowls and crocks to automated systems pretty much any method that you can use for chickens can be adapted for quail.

I personally don't have time to be cleaning and refilling 10+ bowls a day, and since I already had a gravity watering system setup for my rabbits it was really a no brainer to just tap into it.

I went with these watering cups. They do a good job at keeping things dry and the animals with a constant supply of fresh water. They can be disassembled and the O-rings can be replaced if needed. One word of caution, if you have hard water put a sediment filter in line with your system to prevent the cups from becoming clogged, happened to me once.

Also, these cups aren't supposed to "fill up" and the birds will never "learn" to hit the yellow doohickey to add more water to the cup. Instead the bird will try to get the last bit of water out of the cup, and accidentally hit the doohickey, causing more water to enter the cup. At first I thought the birds were too stupid to figure it out and I didn't think they would work. Turns out they work, just not in the way I had thought.



Watering doohickey. Water is especially important. If your birds stop laying, check to make sure the water system is working first, as this is a primary cause of reduced yields.

Outputs

Eggs: Lots of eggs! 250+ per bird per year. Small in size, ¼ the volume of a chicken egg, but packed with nutrients, see the next section for more.

Meat: Quail meat is delicious and extremely low in fat. It has a great natural taste and really doesn't taste gamey or bland. Cook it similar to venison, or other low fat content foods. It dries out easily if over cooked. See the slaughtering section (p25) for more on how to drees a bird

Heat: Quail are warm blooded and will give off body heat. If you have enough of them in a contained space this could be an asset or a problem depending on your situation.

Organs: Dog food or people food depending on your preferences. My dogs have learned to recognize when it's slaughter time, and always gather around for the spoils.

Feathers: Crafts, fishing flies, high nitrogen compost.

Skin: Compost, can be tanned for dog training / dog toy or so I have read.

Blood: Compost pile, or watered down and added to garden.

Poop: Brown gold, compost it!

We really like the eggs!

Quail Egg Nutritional Value

In Japan quail eggs were once considered more of a medicine than a food. Nowadays, more and more foods are being touted for their superb nutritional and medicinal value. Because the placebo effect has been shown to modify outcomes, and high nutritional density is a common trait for seeds, fruits and eggs, it is difficult to discount potential medicinal properties for quail eggs.

From my experience, my seasonal allergies are almost completely gone since I began eating about a dozen for breakfast every morning.

My roommates dog has also benefited from eating quail eggs. Her dog, an 8 year old pug, would lose 80%-90% of her hair in early spring and be bald, itchy, and miserable all summer. Numerous vet visits procured creams, baths, lotions, steroids, and a suggestion to put her down. Nothing helped.

Then we began giving her quail eggs exclusively. For the first time in her life she kept all of her hair.

Quail eggs make for one happy puppy.

She plays fetch with the big bulldogs. Her chronic ear infections have mostly disappeared. Whether these effects would be seen from eating chicken eggs raised in a similar manner should probably be tested, but she's so happy and we raise quail.

Because specific nutrients can be measured, some of the more overzealous claims of nutritional value of quail eggs can be qualified. Based on nutrition facts published by the USDA for fresh raw eggs, an equal mass of quail or chicken eggs have similar nutritional content. The major differences are that quail eggs contain greater amounts of iron, Vitamin B1 (Thiamin), Riboflavin, Niacin, Vitamin B-12, short chain saturated and mono-unsaturated fatty acids (14:0, 16:1), and cholesterol. They also have lesser amounts of carbohydrates (primarily starches), Vitamin D, and poly-unsaturated fatty acids compared to chicken eggs.

Theres a lot of yolk in these little eggs.

These differences are most likely due to differences in relative yolk size compared to the full egg. It is also important to note that in the case of fatty acids, diet can have a large effect on the relative quantity represented. At least one study showed that supplementation of omega-3 fatty acids in a layer's diet increased the quantity of omega-3 fatty acids in the eggs. In some ways, you are what your food eats!

What this means to you depends on your personal dietary needs. The best advice I can give is to eat a diet balanced in protein, fats and carbohydrates with sufficient, but not excessive, caloric intake for your age and activity level.

Behaviors

Dust Baths

Quail absolutely love dust baths! They will chirp and peep and take turns diving into it. Any sort of small container that they fit in can be used. Dollar store dishpans make great containers. Getting a container with slightly higher walls will help keep the mess in the container, but not too high that they can't get in. You can use a lot of different things for the mix: play sand, dirt, ash, etc.. I also like to add a small amount of Diatomaceous Earth (DE) to keep them mite free.

Singing and Bobbing

If your quail are happy and they know it they will sing, chirp chirp. No seriously, the birds will start to recognize you and get excited when you get near them. For the most part they just peep quietly, but occasionally one will break into a song, I like to think they are singing my praises. It's pretty funny when one starts singing, because the rest of them will pause and listen.

Crowing

The males crow. It's nothing like a rooster, but it is a rather distinctive sound. Not all males are created equal, some have a high pitched shriek of a crow. While others have a lower pitch almost growl.

The distance that this will be audible will vary. With direct line of sight and the garage door, and windows open, I can pick up the sound at 50' away. Further out from that it drops off significantly. With the garage door shut and the windows shut I can barely hear it at 20' away. This all completely depends on the males also. The higher pitch call seems to travel significantly further than the lower pitch one.

Some males will crow incessantly, while others rarely crow. I have found that the ones that are the most annoying are also the ones that taste the best. I'm not really sure why, maybe it's in my head.

Slaughtering

Depending on a number of variables a dressed out quail weighs between 1/4 to 1/3 lb. The meat may be used fresh, frozen, or canned. Three quail fit perfectly in a 1 quart mason jar, and weigh about a pound for easy record keeping.

I do all of my processing with a sharp pair of kitchen shears.

Soon to be bacon-wrapped deliciousness.

First I hold the bird by its legs upside down facing away from me. I then take the scissors to the back of its neck and clip its head off into the compost bucket. I prefer to clip from the back of the neck as the bird doesn't see it coming, it also insures an instant kill as the first clip severs the spinal cord.

Then I clip off the wings and legs and separate the vent from the skin before peeling off the skin from the neck down to the legs. After this, I cut along both sides of the backbone, allowing me to remove it as well as the the innards of the quail.

A link to a video by "Fat Daddy Clause" dressing quail in this manner can be found in the resources section at the end.

The only thing that I do differently is clip the rear vent before I pull the skin off. Six of one, half dozen the other.

I'm also not as picky about the feathers. I drop the bird into a bucket of cool water after butterflying and found that most of the feathers come right off the meat during this soak.

Selective Breeding

One really cool thing about quail is how fast they reach reproductive age. They mature to eating age in about the same amount of time as a rabbit, but reach sexual maturity in as little as 10 weeks. This means you could get through 4 generations in a single year. This makes it so you can morph and change your breed line very quickly, and adapt them to your climate / housing situation in a short period of time.

The Rat Breeding Guide is an excellent primer on selective breeding, and a link can be found in the references section. Although rats are example, the information is relevant to any selective breeding. It's a long read, packed with valuable information.

I follow the "The Tatanka Breeders Club" standards from the Backyard Chickens forum. The Tatanka breeders club is a community of people that have all set the same standards for selecting birds. Every once in a while they mail each other eggs to keep the blood lines fresh.

Breeding Goals of the Tatanka Breeders Club

Beak: slightly curved not flat.

Eyes: expressive, green.

Head: large, wide. square when viewed from top.

Neck: thick, slight arch.

Wings: fairly small

Breast: prominent, full, well defined.

Body: similar to other poultry meat birds, "like a brick" a fuller and longer fowl to increase egg-laying capacity and to produce a frame with more meat for commercial purposes.

Back: breadth across the back is a desirable trait.

Legs: muscled thigh. strong to support weight.

Feet and Toes: (4) evenly spaced, long toes

Feathering: rough feathering is common in larger specimens.

When feeding layers 100% store bought food, eggs cost around $0.50/ dozen. A full sized meat bird costs around $2.50 to raise when buying all its feed. Selecting for larger, more productive birds helps keep raising quail economical.

Aside from physical characteristics, Members of the Tatanka Breeders Club also have standards for the size of eggs that are selected for breeding and quail growth rates.

Eggs: for hatching, eggs must weigh greater than 14 grams.

Weights: All birds male and female must weigh 280 grams by 42 days.

A high quality bird will grow at the follow rate:

14 days ~80g
21 days ~130g
28 days ~200g
42 days = 280g
56 days ~350g

Once you get the hang of raising quail, I would encourage all growers to participate in selective breeding, and when you do, to join a club like the Tatanka Breeders Club.

Suburban Issues

Quail are a great option for raising meat and eggs in urban or suburban environments. They take up little space, do well with high stocking densities, and are also very quiet. They may also be claimed as pets if need be, and have fewer specific ordinances directed at them.

My basic philosophy is what people don't see, smell, or hear, they don't bitch about. Every day when I check them I give the garage a quick sniff test around the outside before I go inside. If you want to keep the smell down you need to stay on top of the manure. Not literally, but don't let it build up. Keep it dry and covered. turn it into compost as soon as you accumulate enough to make a pile. The winter cold really does well to keep the smell down, which is good because carbon to make a compost pile is hard to come by during the winter here.

For noise issues I make sure that at night and in the early morning the garage stays buttoned up, windows and doors closed. This way if one of the males starts with some midnight crowing it will not be disturbing to the neighbors. If a male is loud, or crows a lot, I get rid of him. I would rather keep my egg layers and not get harassed than to give up the whole lot due to a couple of noisy males. Eventually after hatching out enough eggs you find some males with a quiet disposition that you can keep around for fertilization.

Be a good neighbor! Having a good relationship with your neighbors goes a long way towards flying under the radar. Both my neighbors are gardeners so giving them compost is a great way to keep them happy, this works especially well when they see you outside turning it every other day and know that you put a bit of work into making it. Giving away eggs is also a great bribe to keep in their good graces. Give them a helping hand when they are doing some work around the house or loading unloading stuff. All of these tactics seem to work very well with my neighbors.

Tip:

When offering compost, eggs, a helping hand or whatever use a little reverse psychology. Phrase it so they are helping you out by you helping them.

When they show up with a truckload of whatever.

"Let me give you a hand with that!" Works most of the time.

"Do you need a hand with that?" Usually ends in a polite, "Thanks, but I think I got it."

Giving them compost.

"I have a ton of compost right now and am running out of places to put it, do you have anywhere that could use some?" Works pretty well.

"Do you want any compost?" Doesn't work that well.

Giving away eggs.

"Here take some quail eggs, my birds are laying like crazy right now and I'm running out of recipes for all of these." Almost always works.

"Let me know if you ever want some quail eggs, I got a bunch!" Doesn't work well, they won't ask.

The author giving eggs to a "neighbor" who looks suspiciously like the editor.

Resources

More Info on My System

TheSurvivalPodcast podcast 1071
http://www.thesurvivalpodcast.com/quail-for-eggs-and-meat

Prezi: Raising quail for meat and eggs
http://prezi.com/kssuytlqgjs4/raising-quail-for-meat-and-eggs/?kw=view-kssuytlqgjs4&rc=ref-37650931

My Flickr pictures
http://www.flickr.com/photos/moonvalleyprepper/

Online Resources

Micro-livestock: Little-known Small Animals with a Promising Economic Future (BOSTID, 1991, 435 p.)
http://www.cd3wd.com/cd3wd_40/cd3wd/AGRIC/B17MIE/EN/B1143_5.HTM

White Quail Blog
http://whitequail.com/

Backyard Chickens
http://www.backyardchickens.com/

Rat Breeding Guide
http://ratguide.com/breeding/breeding/breeding_methods.php

How to Dress a Quail like Fat Daddy Clause
http://www.youtube.com/watch?feature=player_embedded&v=AEjAtvIfAOM

Scientific Literature

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http://www.ajas.info/editor/manuscript/upload/13-138.pdf

Vali N, et Al. **Comparison of Egg Weight between two Quail Strains**. International Journal of Poultry Science 5(4) (2006)
http://www.docsdrive.com/pdfs/ansinet/ijps/2006/398-400.pdf

Silva, WA, et Al. **Quail egg yolk (Coturnix coturnix japonica) enriched with omega-3 fatty acids.** LWT - Food Science and Technology 42 (2009) 660–663

Sahin et al. **Lycopene enriched quail egg as functional food for humans.** Food Research International 41 (2008) 295–300
www.researchgate.net/publication/225292540_Lycopene-enriched_quail_egg_as_functional_food_for_humans/file/d912f50eae863cdf67.pdf

Minvielle, F. **The future of Japanese quail for research and production.** World's Poultry Science Journal 60 (2004) 500-507

USDA Nutritional Database for Standard Reference
http://ndb.nal.usda.gov/ndb/search/list