

Keeping guinea fowl

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Guinea fowl are native to Africa. Their name is derived from Guinea, a part of the west coast of Africa. They have been traced back as far as the ancient Greeks and Romans who raised them for table birds. Early settlers brought guineas to the United States.

Guinea fowl appear in Greek mythology: When Meleager, who succeeded in killing the Calydonian boar, was killed, his sisters Deianira (wife of Hercules) and Gorge were put to death and turned into Guinea fowl by Artemis. The tears that they shed showered their sable plumage with white spots. Dionysus pleaded with Artemis to undo her work, and the sisters were returned to their human form.

There are three species of guinea fowl – the Vulturine, Crested and Helmeted.

The **Vulturine** guinea fowl (*Acryllium vulturinum*) is from the semi-arid regions of east Africa. The vulturine is not commonly raised in the United States as it is more sensitive to cold and lacks the hardiness of the common guinea fowl. It has a helmetless head and resembles the look of a vulture.

The **Crested** guinea fowl (*Guttera pucherani*) is from South Africa. Crested guinea fowl can be distinguished from other guinea fowl by their black head plumes.

The **Helmeted** guinea fowl (*Numinidae meleagris*) is the most common species of guinea fowl. They are named for the bony 'helmet' on their head. Only three colors are recognized for exhibition purposes: Pearl Grey, African White and Lavender.

The remainder of this publication refers to raising the helmeted guinea fowl. A guinea fowl is definitely not a chicken. It is more active, ranges further, and flies higher than chickens.

WHY KEEP GUINEA FOWL?

Guinea fowl are a game bird that is increasing in popularity. They are rough, vigorous, hardy, and basically disease-free birds. There are a number of reasons for raising guinea fowl.

For show: Many poultry shows include a class of guinea. Guinea fowl can typically be entered in one of two classes – breeding (judged according to a Standard of Perfection) and market (judged according to body conformation as it relates to meat production).

JUDGING GUINEA FOWL

From the Standard of Perfection for Guinea fowl*

The correct age and gender classifications for guinea fowl in poultry shows are cock, hen, cockerel, and pullet. Guinea fowl are rarely handled by the judge until the final placings are decided upon, and then only those birds which he/she expects to place. Those birds are then examined for any defects or disqualifications not apparent from the aisle. Judges should keep in mind that a female guinea fowl in heavy production may have faded leg color. Duck foot can occur in guinea fowl and judges are advised to be on the lookout for it and to disqualify any bird with a duck foot.

*Found online at <http://www.guineafowl.com/standards.html>

TERMINOLOGY

Many people incorrectly refer to guinea fowl as guinea hens. Guinea hens are the female of the species and the term should not be used to refer to the species as a whole.

Poultry – Domestic fowl raised for meat or eggs

Guinea fowl – The proper name for the species

Guinea hen – the adult female guinea a year of age or older

Guinea cock – the adult male guinea a year of age or older

Keet – the offspring of a guinea hen and a guinea cock from hatch through 12 weeks of age.

Young guinea – any guinea aged 12-52 weeks of age

Pullet – a female guinea under a year of age

Cockerel – a male guinea under a year of age

Helmet – the protuberance on the top of the head of guinea fowl

Varieties – differences in color patterns or markings

For income: The meat of a young guinea is tender, resembling that of wild game. Guinea fowl meat has many nutritional qualities that make it a valuable addition to the diet. It has 134 calories per 100 grams, which is second only to turkeys which have 109 calories in the same quantity of meat. Guinea fowl meat is leaner and drier than chicken meat. Guinea fowl are ready to eat at 14 to 16 weeks of age.

Guinea eggs can be eaten just as chicken eggs and should be collected daily if not used for hatching purposes. During the laying season an egg a day is common.

The feathers of guinea fowl are also often sought for use in arts and crafts. They have been used in hats, 'Dream Catchers' and decorative gourds.

Farm yard 'watch dog': Guinea fowl will sound an alarm whenever anything unusual occurs on the farm. Some find this noise a nuisance, but for others the guinea is an effective tool for protecting the farm livestock. Guinea fowl have been proven as 'watch dogs' in non-farm locations as well, such as junk yards. When dogs are used as guard animals, lawsuits are a possibility if an intruder gets injured. In a junkyard with trees, guinea fowl roost in the trees at night and will make

a ruckus if disturbed, alerting the owner of the intruder. Losses to theft can be reduced with no law suits. Guinea fowl will also alert other poultry on the farm of danger. The warning call of guinea fowl notifies others when raptors are in the area, giving them time to dash under shelter.

Insect control: The main food for wild guinea fowl is insects. Guinea fowl will consume large amounts of insects, typically leaving the vegetable and flower gardens alone. Unlike chickens, guinea fowl do not scratch the dirt much and thus do very little damage to gardens. Once established on a farm, guinea fowl are able to pretty much fend for themselves consuming insects, seeds and grasses. They have been used to control deer ticks, wood ticks, grasshoppers, flies, crickets and other insects. They will also eat slugs. Guinea fowl are used in some areas to reduce the threat of **Lyme disease** which is carried by the deer tick population (see insert on page 4). Guinea fowl will also eat honey bees, so you have to be careful if you also have apiaries. Guinea fowl have been known to stand by a hive and eat the bees as they come out.

Rodent control: The loud call of the guinea fowl has been shown to discourage rodents from invading the area. Flocks of guinea fowl will kill and eat mice and small rats.

BODY PARTS

The **HELMET** is a pale, waxy 'appendage' protruding from the top of the guinea's head. It is hard and curves away from the body. It is a blackish color in young keets and becomes brown in the adult. It is also commonly referred to as the topknot, comb, or casque.

WATTLES are the fleshy coral red appendages that hang from either side of the head. It is flat, stiff, and free from wrinkles. The lower edge of the wattles curves from the beak. It is much larger and has a cupped appearance.

The **HEAD** is wedge-shaped and short. It tapers toward the beak. The head is covered with white skin with a line of very fine hair-like feathers down the back of the head sticking out and growing upward.

The **EYES** are very alert, large, round and dark brown.

The **NECK** is rounded with down-like feathers.

The **SHANKS** are bright orange in keets, but change to mottled orange with brown as they get older. The shanks are black as older adults.

The **TOES** are strong and straight.

The **BEAK** is short, strong and curved.

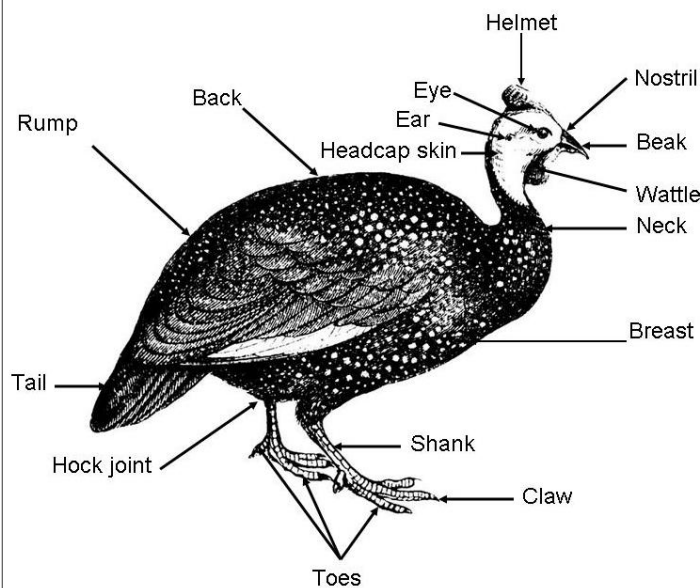
The **WINGS** are large and carried horizontally.

The **BACK** is broad and curves from the neck descending gradually to the tail.

The **BODY** is long with a full, rounded breast.

The **TAIL** is carried low to the ground and is rather short.

Figure 1. Diagram showing the various parts of the guinea fowl



Snake control: Some snakes are known to eat eggs and baby chicks. In areas where snakes are a problem, groups of guineas have even been known to locate and kill snakes before they can cause harm.

Unique ornamental value: Guineas are curious and interesting animals. Some people like to keep them around simply for the entertainment value. Guinea fowl have been described as darting around the yard like little roadrunners. Guinea droppings (guano) are less offensive than most poultry species and are only messy when the birds are sick. The guano is basically dry and washes away easily in the rain. So if keeping guinea fowl for their amusement value you do not have to worry about stepping in a pile of droppings when walking around the yard.

Lyme disease is an infection caused by the bacterium *Borrelia burgdorferi* which is usually found in animals such as mice and deer. Ticks pick up the bacteria when they bite an infected animal and can transmit it to a person resulting in Lyme disease. Some cases of Lyme disease have been reported in Asia, Europe and parts of Canada. In the United States, the majority of Lyme disease cases occur in the Northeast, upper Midwest and Pacific coastal areas. The most commonly affected states include (in alphabetical area) Connecticut, Delaware, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New York, New Jersey, Pennsylvania, and Wisconsin.

Lyme disease is not transmitted from person to person. Instead, a person needs to be exposed to ticks to get sick. People who spend a lot of time outdoors, especially in wooded areas, are more likely to contract Lyme disease.

Lyme disease can affect the skin, joints, nervous system, and other organ systems. Symptoms, and their severity, can vary from person to person. The first sign of infection is usually a circular rash that appears with 1-2 weeks of infection. The rash is often described as having a 'bull's-eye' appearance, with a central red spot surrounded by clear skin that is ringed by an expanding red rash. An infected person may experience flu-like symptoms including swollen lymph nodes, fatigue, headache, and muscle aches. These initial symptoms may go away without treatment, but for some people the infection spreads to other parts of the body. Lyme disease can affect the heart leading to an irregular heart beat; can spread to the nervous system causing facial paralysis; and swelling and pain in the large joints may occur. Treatment involves antibiotics over a 3-4 week period of time.

Domestic animals, such as dogs and cats, may become infected with *Borrelia burgdorferi* and may carry infected ticks into areas where humans live.

VARIETIES

There are three principal varieties of domesticated guinea fowl in the United States: Grey Pearl, White and Lavender. In all three varieties, the head and neck are bare but there may be wattles present. The wattles of the male guinea are much larger than those of the female.

1. The pearl variety is the most popular and typically the one that people recognize the most. They have purplish-gray plumage with dots of white spots giving the look of pearls. Feathers from the pearl variety are often used for ornamental purposes.
2. The next most common variety is the white guinea (also called African White). As the name indicates, the white guinea has pure-white feathers. In addition, its skin is lighter than the other two varieties.

These birds are not albino and are the only solid white bird that hatches solid white and not yellow.

3. Lavender guineas are similar to the Pearl, but their plumage is light gray or lavender dotted with white spots.

BEFORE YOU START

Before you start raising any kind of poultry you should check to the zoning regulations for your area to make sure that you are permitted to raise poultry. This is particularly important when raising guinea fowl. Guineas will range and cross the boundaries of a small lot. It is common for urbanites to move into areas zoned agriculture but then complain if someone's animals cross onto their property. Guinea fowl are typically quiet, but can be VERY noisy if disturbed.

CARE AND MANAGEMENT

Housing

Guinea fowl are often left to fend for themselves but it is best if they are provided with a **shelter** to protect them from high winds, rain, cold, sun, and predators. The shelter can be from a facility you build specifically for them or can simply be room allotted to them in a barn that you already have. If the barn is unheated, it is best if you do not insulate the house. Insulation tends to keep moisture in more than it keeps the cold out. Allowing moisture to build up in a poultry house can cause respiratory problems.

The floor of the 'henhouse' should be covered with an absorbent **bedding** material such as hay, straw or wood shavings. If the litter is kept dry there is no need to replace it for several months. Guineas like to roost so it is important to provide **perches**.

Do not confine male guineas with chickens if there are roosters in the same flock. If your flock is allowed to free range during the day and is only locked up at night, it is okay to keep the guineas and roosters in the same barn. It is also okay to house them together in a short term emergency, such as a blizzard or other bad weather. If the male guineas are housed with the roosters full time, however, the guineas will chase the roosters, keeping them from food and water.

If you are keeping guineas for egg production (for hatching or human consumption) there should be nest boxes available. Nest boxes designed for chickens will usually work. It is best if you keep your guinea hens in the henhouse till noon each day so that they will lay eggs inside rather than on a hidden nest outside.

Fresh, clean water must be available at all times. A variety of different waterers are available, but whatever you choose they should be cleaned daily.

Brooding and rearing

It is best to start with day-old keets. You can purchase them from a local breeder, a local feed mill, or online with delivery through the mail. The main problem with mail orders is that there is often a minimum order required and you may not want to purchase that many keets. The minimum number that can be ordered is usually based on the best survival rate with shipment. Keets coming through the mail are dependent on their combined body heat in order to survive without a heat lamp during shipment. The minimum number is also set to prevent the keets from being tossed around in the shipping box.

Newly hatched birds, including keets, absorb what is left of the yolk that provided food for the developing embryo during incubation. The absorbed yolk provides food to the newly hatched keets making it unnecessary for them to eat or drink for 48 hours after they are hatched.

Being native to dry areas of Africa, guineas are very susceptible to dampness during their first two weeks, and can die from following the mother through dewy grass. After two weeks of age, however, they are probably the hardiest of all domestic land fowl.

Keets may be raised in the same kind of brooder houses and brooders as chicks or poults (baby turkeys). Hovers should be started at 95°F (35°C) for the first two weeks, and then lowered by 5°F (2.75°C) per week thereafter.

After they are fully feathered, guineas are typically able to tolerate extremes in weather fairly well.

Sexing Guineas

One of the most-often asked questions about poultry is how to tell the males from the females. It is very hard to sex young guineas since they all look exactly the same. You can only really sex guineas once they are older. There are two ways to tell them apart.

1. *Listen to the sounds they make.* The hen makes a two-syllable noise that sounds like she is saying 'buckwheat, buckwheat,' 'put-rock, put-rock' or 'qua-track, qua-track.' This is the only sound that the hen makes that the rooster does not. The young birds start making these sounds at 6-8 weeks of age, but some females do not start calling till much later.
2. *Size of the helmet and wattles.* The helmet and wattles of the male are much larger than those of the female.

Managing Adults

If you are purchasing guineas for tick and insect control then you are better off purchasing adult guineas as they require little care and do very well on their own. Clean water should be made available. Guineaes enjoy a little scratch feed scattered on the ground. Guineaes allowed to roam freely will eat very little during the summer months. If you want them for pest control, restricting their feed will encourage them to spend more time eating insects.

It takes guineas a while to get settled into a new home. If you purchase adult guineas, it is best to keep them confined for a week or two to let them get accustomed to their new home. If you let them out right away they may disappear down the street. They should be confined in a pen where they can see the area where they will be living. After the initial 1-2 weeks, let one guinea out. Guineaes hate to be alone so the single guinea will not go far and will learn its way around the area. After a few days let a second guinea out to run with the first. If they stay around it is usually safe to let the rest out.

Guineas are very good runners and prefer this method of getting around, including to escape predators, rather than flying. If the adult guineas are let loose to forage freely, space is usually not a problem. If you are going to confine the guineas for any length of time, they should be given a minimum indoor floor space of 2-3 square feet per guinea. The more room the guineas have, the less likely it is that they will be stressed.

If you want to keep your guineas from wandering from a specific area, they need to be kept in covered pens. Guineaes are able to fly at a very early age and will often fly around the farm. Guineaes are strong fliers and often fly 400-500 feet at a time.

Nutrition

Adult guineas are very 'low maintenance' food-wise. Guineaes will forage for themselves and are able to meet most of their nutrition requirements on their own. They will consume a variety of insects (mosquitoes, ticks, and beetles), grass, weed seeds, slugs, worms, and caterpillars. Guineaes need to consume greens in order to maintain good digestion. They will eat grass, dandelions, weeds, etc. Because they are consuming vegetation, it is important to have grit available. It is also good to have oyster shell available free choice.

If for any reason guinea fowl are not allowed to forage, they can be fed a commercial poultry diet. Guineaes need a higher protein feed than chickens, but do quite well on regular poultry diets. Keets need a 24-26% protein ration for the starter feed. **It is important to use an un-medicated feed.** The protein level should be reduced to 18-20% protein for the fifth to eighth weeks. After that they can be fed a regular laying mash which usually contains 16% protein. If your local feed mill does not sell the feeds in the protein levels you need, you can mix a higher protein diet with a laying mash to get the proper protein level. Guineaes should be fed only mash or crumbles. Pelleted feed is not recommended for feeding guineas.

Supplemental greens should also be given – such as leafy alfalfa - for the guineas to peck at. They will primarily eat the leaves. It is important to remove any leftovers daily to prevent creating a mold problem.

If the guineas are able to get plenty to eat in the area in which the forage they will not eat much supplemental feed. They do like the occasional treat of wheat, sorghum (milo) or millet. They do not care much for the larger grains and will ignore whole corn kernels. When giv-

ing them supplemental grains, whole or cracked grains can be used.

HEALTH

Guineas are subject to the same diseases and parasites as other poultry and respond to the same treatments.

Do NOT feed medicated poultry diets to guinea fowl. Coccidiostats, such as coban, are toxic to guinea fowls.

MARKETING

The normal marketing season is late summer and throughout the fall. The demand is typically for young birds weighing 1.75-2.5 lb (~1 kg) live weight. Many hotels and restaurants in large cities serve guineas at banquet and club dinners as a special delicacy or as a substitute for other game birds.

Guineas are killed and dressed in the same way as chickens. The bones of guineas are relatively small, and the carcass produces a relatively large amount of meat.

REPRODUCTION

Selecting breeders

When selecting breeders from your flock, size and uniform color are important. Both male and female adult guineas weigh 3.0 to 3.5 lb (~1.5 kg). As previously indicated, guinea fowl are sexed by the cry they make and the size of the helmet and wattles (which are larger in the male).

Wild guineas typically mate in pairs, but under domestic conditions, you usually need only one male for each 4-5 females.

Hens can lay more than 100 eggs per year. Guinea eggs are smaller than chicken eggs; about 1.4 oz (40 g) versus 2 oz (60 g) for a chicken egg. If you are keeping guineas for egg production (for hatching or human con-

sumption) they should have nests available. Nests boxes designed for chickens will usually work. It is best if you keep your hens in the henhouse till noon so that they will lay eggs in the henhouse rather than on their hidden nest outside.

Hatching egg production

When allowed to incubate eggs naturally, guinea hens typically do not go broody until the nest has around thirty eggs. A good guinea hen will lay an egg a day. If the eggs are removed, she will most likely make a nest elsewhere. If all but four to six eggs are removed from a nest for safekeeping, she may return to the same spot and continue laying. You can collect eggs daily without having to go on a scavenger hunt each day. Eggs from confined guineas, however, can typically be collected daily with no problems.

Incubation

Guineas often lay their eggs out in the fields and hatch their young by themselves. If you do find the eggs and wish to incubate them, the eggs should be treated like chicken eggs. There is one big difference however - guinea eggs are smaller and have a thicker shell than chicken eggs making them nearly impossible to candle for fertility until they have been incubated for at least 10 days.

The incubation period for guinea eggs is 26-28 days. The eggs can be incubated in most commercially available incubators. If the incubator does not come with guinea-specific instructions, follow the guidelines for pheasants or turkeys.

If using natural incubation, guinea hens typically begin to lay in April or May, but do not become broody till later in the season. If you want to hatch the first eggs laid, you can use a broody chicken hen. Typically a bantam hen can incubate 10-15 eggs while a standard size hen can incubate 25-30.