

Questions And Answers On Turkey Raising

By CARLOS X. BURGOS
Chief, Livestock Extension Division Bureau of Animal Industry

(With the last issue we finished with *Livestock and Poultry Questions and Answers*. We start with this issue *Questions and Answers on Turkey Raising*. After this set, we will publish *Questions and Answers on Duck Raising*, *Goat Raising*, *Rabbit Raising* and *Fish Culture*.)

1. From what country did the turkeys originate?

The turkeys originated from America, where they are still found in a wild state. They were first domesticated by the Aztecs in Mexico, from which country they found their way to Spain in the 16th century and then to England. Later, turkeys were re-introduced into America from Europe as new breeds.

2. How did the name "turkey" originate?

Some believe that it originated out of the resemblance of the fowl to a Turk with his fez on, or, possibly, from the fact that the Moors known as Turks brought it to England from Spain. In Spain the turkey is known as "pavo." This fowl is related to the pheasant.

3. Where did the Philippine turkey come from?

Most probably, it came from Mexico, as Spain governed the Philippines largely through that colony.

4. What do the census figures show about the turkey population in the Philippines?

In 1903 there were 9,201 turkeys in the Philippines; in 1918, 27,754; and in 1939, 43,419.

5. What were the leading provinces in turkey production according to the 1939 census?

They were, together with their respective populations, as follows:

a. Pampanga	5,586
b. Bulacan	4,494
c. Negros Occidental	4,139
d. Nueva Ecija	3,883
e. Laguna	3,640
f. Pangasinan	3,542
g. Rizal	3,457
h. Cebu	2,928
i. Tarlac	2,162
j. Iloilo	1,685

6. What are the most important breeds of turkeys?

In Europe, they are the White Holland, a continental popular breed, and the Black Norfolk, an English breed, both of which played an important part in the development of

the domesticated turkey. In the United States, they are the Mammoth Bronze, the Medium White, the Bourbon Red, Narragansett, and Slate. The last is a blend produced from the crossing of the Black and White turkeys of Europe.

7. Why do not many people raise turkeys in this country?

Because of the general belief that too much hand feeding is essential to the successful raising of turkeys.

8. Is that belief based on facts?

No. Turkeys can be raised as easily as chickens. In fact as to the growth of meat the turkey is a faster grower than the chicken, and once it is over one month old and it gets well accustomed to the range, especially a suitable range, it is very economical and easy to raise.

9. What do they like most to eat in the range?

Tender grass, shoots, berries, fruits, grass seeds, beetles, grasshoppers, worms, frogs, tadpoles, and lizards. If left to range over newly harvested fields of palay or corn, they will pick up fallen grains and other seeds that had escaped the eye of the harvester. For this reason, in California, many rice growers use turkeys to clean their fields after harvesting.

10. Can turkeys be raised on a large scale in the Philippines?

Yes, and this has been done. Early in 1939, a man from Bataan who had never raised turkeys started with a few dozen turkey eggs. He raised his poults (young turkeys), guided largely by instructions furnished by the Bureau of Animal Industry. By Christmas in 1940, he had over 200 Bronze turkeys. In some barrios of Tuguegarao, Cagayan, before the war, farmers preferred to raise turkeys in flocks of fifty or more. In Binangonan and Angono, Rizal; and in Hagonoy and Paombong, Bulacan; there were also many raising them. Likewise, many farmers in Cebu City; Janiuay, Iloilo; and in some towns of Occidental Negros were successful in raising them.

11. Describe the Bronze turkeys.

They are the largest breed of turkeys; they weigh 13.5 to 15 kilos for toms and 7 to 9 kilos for hens. In the Philippines, they weigh only 10 to 13 kilos for full-grown toms and 5 to 6 kilos for hens. Exceptionally large Bronze turkeys in the United States

weigh as much as 22 or 23 kilos. In color, they are black or brownish-black, with a copperish sheen or brilliance. There are also narrow white barring on the wings, tail feathers, tail coverts, and breast.

12. Describe the native turkey.

The native turkey is very small compared with the Bronze. The toms weigh, on the average, 5 to 8 kilos; and the hens, 3 to 4 kilos. The black turkeys of Bulacan may weigh a little heavier than these. The average native turkey, however, resembles the Bronze in appearance, except that it does not have that metallic sheen the latter has.

13. How may the males be distinguished from the females?

The males, even when very young, are usually larger than the females, especially as to size of shanks and body. As they grow older, their difference in size becomes more marked and the face caruncles of the males appear to be more prominent. Likewise, the fleshy appendage over the nostril that shortens and elongates at will is much more developed in the male than in the female. Moreover, only the male, when full grown, grows spurs and a tuft of tough hair over the crop.

As to behavior the male, when adult, may easily be distinguished from the female, especially in the presence of the latter by his various showy ways—the spreading of the tail feathers into fan-shaped forms, his strutting gait, and his long-drawn gobbles which he emits when hearing sharp and piercing sounds. The female sometimes imitates the strutting of male, but she is a poor imitator.

14. What is a satisfactory place for turkeys?

A place that drains easily during the rainy weather and where no stagnant water collects. If possible, the soil should be sandy loam if it is not in a rolling country. The range should be wide and rich in green feed, tender edible buds, fruits, berries, weed seeds, grasshoppers, and other insects. Wild or semi-wild surroundings with no predatory animals help to reduce the cost of maintenance and to promote successful turkey production.

15. If the range is limited what is the best policy to follow?

Divide it into at least two parts so as to rotate the range and let the

plants of one part recuperate.

16. *Is a house necessary in raising turkeys?*

It is always better to have at least a shed with one or two sides covered as protection against the prevailing winds that usually accompany heavy continuous rain. Some people raise turkeys in the open. Even in such case, however, their roosting place should be also provided with a wind-break against the prevailing winds which are accompanied by heavy continuous rain.

17. *Are enclosures important for turkeys?*

Yes, when there are neighbors nearby. But where there are none or they are far away, the turkeys will do better if allowed to roam as they please in the open fields.

18. *Will turkeys return to roost in the same place as chickens do?*

They will; but as a precautionary measure when the flock is fairly big, a boy or some other person should herd them, keeping them where food is plentiful and making sure that they are not lost or molested. Turkeys can be easily herded in the same way as goats and sheep. But it should be remembered that they have a higher market value than the ordinary goat.

19. *How many eggs do the native turkey hens lay?*

They lay ordinarily a clutch of 14 to 16 eggs, which may be increased when feed of better quality and greater variety is available. They lay two to three clutches a year.

20. *What is the egg production of Bronze turkey hens?*

The Bronze turkey hens lay 16 to 20 eggs to a clutch. If the eggs laid are removed so that only one is left in the nest at a time, they will lay as many as 26 eggs or more to a clutch. If the nest is removed at the end of a period of a clutch, they will lay again in 10 days to 2 weeks. The average number of eggs laid in a year by a small flock of 20 hens, frequently supervised by the Bureau of Animal Industry during 1940 and 1941, was over 90 eggs per hen. It may be stated here that this flock was fed a laying mash similar to that given to the White Leghorn commercial flock kept by the same owner.

21. *Where do turkey hens prefer to lay their eggs?*

They prefer to lay them in nests that are well concealed and difficult to find. In fact, whenever they lay, they leave their roost early in the morning and go quietly direct to their nests.

22. *Describe their eggs, as to size,*

shape, and color.

Their eggs are large, oval, very much more pointed than the average chicken egg, whitish, and abundantly spotted with reddish brown dots. The Bronze turkey eggs are much larger and have a more prominent coloration than those laid by the native stock. In fact, there are times when many of the native turkey eggs are almost spotlessly white so that they may be mistaken for White Leghorn eggs.

23. *How, then, may nests be placed to control egg production?*

Empty barrels or fairly big boxes, used as nests, may be arranged in dark places in the turkey house or shed, or they may be spread and fairly concealed among the shrubbery. It is important, however, to visit such places daily to collect the eggs, or if other nests are put in other places they should be protected against rain or against attack by pigs or any other predatory animals.

24. *How may the eggs be collected without disturbing the hen?*

This may be done by first locating the nesting place of the hen at a distance early in the morning. When the place is located, one should wait until the hen leaves. It is easy to tell when she leaves, because she continually calls out the flock to know its whereabouts. The gobblers, as soon as they hear her call, will inform her of their whereabouts by their typical answer call.

25. *What is the procedure in collecting the eggs?*

An egg should be dated as soon as it is laid, and the egg last laid is left in the nest, unless there are available China eggs or other artificial eggs which should, of course, be left in the nests.

26. *Are turkey eggs as palatable as chicken eggs?*

Yes. If the turkeys have continuous access to a laying mash or are fed daily with a grain mixture, the fresh eggs laid by them cannot be distinguished from chicken eggs except for their larger size. Older eggs, kept away from feeds or other products emitting odors which may be absorbed by eggs, will have the same flavor as chicken eggs similarly kept.

27. *How many eggs may be set under a turkey hen?*

Generally, about 15 turkey eggs. If there are broody chicken hens at the time the turkey hen sits, as many as nine eggs may be set under each of these hens. When the poults hatch they may all be given to the turkey hen. On the seventh day after the

infertile or dead germ eggs have been removed, two or three chicken eggs should be included to hatch. The reason for this will be explained later. Older large turkey hens that have proved to be good mothers may be given as many as twenty eggs, but their nests should be well made.

28. *What is the incubation period of turkey eggs?*

The incubation period of turkey eggs is 28 days. This is the reason why chicken eggs, to be incubated with turkey eggs, are included after the 7th day of incubation, for both kinds of eggs to hatch at the same time.

29. *What is the reason for including a few chickens eggs with the turkey eggs?*

To have chicks in the same hatch that will teach the poults to eat. Chicks readily learn to eat the mash feed placed before them and the poults try to imitate whatever the chicks do.

30. *What precautions should be taken in setting eggs under turkey hens?*

The same precautions taken with chickens. See to it that the nesting material is sufficiently thick and that the nest is well made. That the hen in alighting on its nest does not break any egg. That the necessary measures are taken to get rid of lice and mites before placing the eggs under incubation. That steps are taken to protect eggs from ants, crows, snakes, rats, and such other animals that may cause disturbance to the sitting hen.

31. *What months are most favorable for raising poults?*

In places where weather conditions are similar to those in Manila, incubation may be started as early as the middle of October and as late as the middle of January.

32. *What is the reason for this?*

Generally, the conditions in these parts of the year are more favorable for raising poults. From November onward, there are longer spells of good weather. Green, especially tender greens, are easily available, and there are usually plenty of insects. Continuous rainy weather and coarse pasture feeds are not favorable to turkey production. The period for raising young turkeys, however, could be extended if in spite of adverse weather conditions, they could be properly sheltered and given tender green forage.

33. *Can turkey eggs be hatched under artificial incubation?*

Yes, but to be successful in ordi-

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nary incubators it is necessary that only turkey eggs of the same size be set and that the bulb of the thermometer be placed on the same level with the uppermost portion of the eggs. All other factors to be considered, such as age of eggs, moisture, and heat should be the same as those for chicken eggs.

34. *What is the best ratio of toms to hens?*

Use one vigorous tom for as many as ten hens in small flocks. In large flocks use one tom for every 6 to 8 hens.

35. *What is the percentage of fertility in turkey eggs?*

Usually, it is 90% to 100%, which is higher than the percentage in chicken eggs, but sometimes all the eggs in a clutch are infertile.

36. *Why is this so?*

It appears that a successful breeding is sufficient to fertilize the whole clutch of eggs. However, when one tom is too big and heavy for the hens or if other toms continually interfere during mating, the turkey hen lays infertile eggs.

37. *How many turkeys can be raised in a hectare of pasture land?*

It is from 20 to 30 hens, depending on the luxuriance of plant growth, and on the number of toms to be used. If most of the food, however, can be given in well-balanced concentrated feed mixtures, even 500 turkeys may be raised per hectare.

Albay B. P. I. ...

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the afternoon.

In one of these experiments conducted on the 15 cavans seedlings of Tomas Alianza of Bagumbayan, Legaspi, Mr. Ilagan found the seedbeds studded with cracks or slits where the worms absconded. Broadcasting of the compound was accomplished around 6:30 p.m. but on account of these slits which practically sheltered the pet peeve of the farmers, success was about 80% only.

Several kilos of white arsenic have been requisitioned from the Manila office of the Bureau of Plant Industry and with the farmers themselves ready and willing to furnish the rice-bran, it would not be amiss to avert that this simple mixture may prove a real substitute for calcium arsenate in subjugating the rice cut- and army-worms that today are proving real thorns on the side of the rice planters.

WITH OUR 'TENANTS'

New American Farm Machinery Will Help Farmers Everywhere

By HAROLD FAIR

Reuters' Special Correspondent

NEW YORK, June 6 (Reuter)—New farm machinery designed in the experimental workshops of the United States Government's Tennessee Valley Authority project, a \$740,000,000 hydro-electric power and flood control development, will benefit farmers throughout the world.

The new machinery is being made available for manufacturer by commercial concerns, much of it considered useful for increasing food production in Europe and Asia. The United Nations Relief and Rehabilitation Administra-

It should be remembered that the more birds there are, the more shoots, buds, fruits, and insects are needed for feed every day.

38. *Give a poult mash feed mixture.*

Mix the following according to weight:

3 parts, first-class tiki-tiki

2 parts, finely-ground yellow corn

1 part, finely-ground mongo (or soybean oil meal)

1 part, blinlid

1 part, fish meal (or shrimp meal or meat meal)

To every 100 kilos of the above-given mixture add 3 kilos of finely-ground oyster or clam shells and 1/2 kilo of salt.

39. *When should the feeding of poult start?*

The feeding of poult should start 36 to 48 hours after hatching. Like chicks there is sufficient food in their bodies to keep them from getting hungry.

40. *Where is the mash feed placed when given to the poult?*

On the second and third days small amounts of poult feed may be spread over clean newspaper or other clean surface or directly in the feed trough. From the fourth day on, the feed should be given in the trough and it should be either dry or in moist form but never wet. If moist, the amount should be such that the poult may clear in 15 minutes; they should be fed every three hours. Larger amounts if not consumed are liable to spoil and do harm.

(To be continued)

tion has ordered 500 units of a new threshing machine for use in Central Europe. Another 250 units have been ordered by South American buyers.

Models of the machinery have been placed on public exhibition for manufacturers' inspection and some are on factory assembly lines. The new developments will help farmers thresh wheat mill flour, dry hay, irrigate fields and shell peanuts.

One machine considered suitable for UNRRA and South American use is a trailer thresher. It can be towed behind an automobile from one small hill field to another and threshes—wide variety of grains. A feed grinder has been developed to meet the needs of the small farm. It weighs only 45 pounds exclusive of hopper motor and control attachment automatically regulates the flow of grain into the mill and does not require the constant attendance of the farmer.

Tests have shown this mill can grind all the grain required during the year for an average size farm.

A new machine also has been devised to scarify seeds—to break the hard seed coating to speed germination. Laboratory experiments show 85 to 90 per cent of bush clover seed will germinate within 21 days if it has been scarified. Only 20 per cent of the unscarified seeds germinate in the same period.

Driven by a one-horsepower motor the machine consists of an abrasive disc and fan. It has a capacity of 200 to 300 pounds of seeds per hour.

A special peanut harvester is tractor-drawn and equipped with a series of moving forks that pull the peanuts (ground nuts) from the ground, shake the dirt from them and throw them into loose rows for effective drying. One man can operate this harvester and by working two rows at a time can pull and shake 15 to 30 acres of peanuts a day.

Another new devise is a portable sprinkler for irrigation. It consists of a motor-driven pump, a series of sprinklers and durable lightweight pipe with connections that can be readily detached so distribution lines can be easily moved from one place to another over the fields.