

• Raising Philippine Native Chickens for Fun and Profit

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The Philippine colored chicken includes the strains which Filipinos call “native or “bisaya.” These strains are believed to have descended from the *Gallus gallus* which, according to poultry breeders, have high crossbreeding and inbreeding potential. In fact, geneticists all over the world recorded that chicken to have inbred successfully even in captivity.

Many poultry authorities were unified in saying that Philippine native chickens are not profitable, that is, they are not good for commercial scale production. The reason given is that these chickens take more feed than they convert protein for the farmers. This is why poultry books deal only with commercial hybrids and the native chickens are left out. Be it known that commercial hybrids are mostly white-feathered. In terms of meat and egg quality, however, the native chickens are still in high demand.

In the market in 1999-2000, the cost of white chicken meat ranges from P64.00 to P75.00 per kilo, while the colored or native meat ranges from P90.00 to P100.00 per kilo. The “native” eggs also cost higher than the white eggs. In addition, native eggs are used as cure to some bronchial illness, based on folk medicine. Barrio folks soak the native chicken egg in orange juice the whole night and drink the egg raw. The egg is said to become very effective for dry cough, hence, it is termed orange-osmomedic (O-o) egg. Due to the making of O-o egg and its palatable meat, the native chicken is really an important commodity among farmers.

The commercial strains such as the Pitch, Petterson, Van Acre, Cobb and others are harvested in 45-60 days. These comprise the commercial broiler strains. The White Leghorn which tops the egg strains are small bodied but lay bigger and more eggs. In spite of these advantages of the commercial strains, the Philippine colored chickens compete in terms of price and demand, as stated earlier.

Ancestral Species of Chicken

According to Morely A. Jull, the world has four ancestral species of chicken. The application of breeding technology evolved the commercial hybrids and the Philippine native chicken today. The four species revealed by Jull in 1975 include the following:

1. The Red Jungle Fowl – (*Gallus gallus* or *Gallus bankiya*). This wild species can be found in Eastern India, Burma, Siam and Sumatra and in the mountain ranges of the Philippines.
2. The Ceylon Jungle Fowl – (*Gallus lafayetti*). This species is found in the mountain ranges of Sri Langka (formerly Ceylon).
3. Grey Jungle Fowl – (*Gallus sonneratti*). This species is predominant in Western and Southern India.
4. Javan Jungle Fowl – (*Gallus varius*). Most of these birds are found in the mountains of Java and adjacent islands, including Borneo and Sulu.

Among the four species, the *Gallus varius* is characterized as having a single median wattle, smooth edged comb, truncated neck hackles and an extra pair of rectrices or tail feathers. The representative strain of this species in the Philippines is the Basilan. This has been named after the place of entry, that is, Basilan Island and the Sulu Archipelago. Today, a number of the birds including the Basilan are considered native chicken in the Philippines.

Truly indigenous to the Philippines, however, is the Red Jungle Fowl which, for the most part, gave rise to the Philippine colored or native chicken. Similarly, the *Gallus varius* gave rise to the Basilan, the strain very common in Marawi City.

The Philippine native chicken has been very genetically altered due to the introduction of several foreign breeds and strains of chicken into the country. Crossbreeding and inbreeding has resulted in the tentative status of the listing of Philippine native chicken.

Tentative Checklist of Philippine Native Chicken

The Manok Ihalas – *Gallus gallus gallus*, a subspecies of the Red Jungle Fowl, was listed by Professor Dioscoro S. Rabor, a Filipino ornithologist, as the native chicken of Mindanao. Though difficult to domesticate, it has genetically altered the native chicken raised along forested areas in the country. Genetically, this subspecies has aroused objections from the farmers. The bird is small, has slower growth and has mediocre performance in the cockpit. In view of these deficiencies, Filipino cockers import foreign fighting cocks from the United States of America and Europe. In the process, undetermined crossbreeding has transformed the genetic makeup of the native chicken. This gave rise to several native strains of chicken in the Philippines.

Pioneering the imports included Kip Moore, Duke Hulsey, Spec McLaughlin, Grady Hamilton, Smokey Wallace and one known only as U.S. Yankzee. All these imported breeds were summarily termed by Filipino cockers as "Texas" cocks. These breeds encouraged Filipinos to go into fighting cock breeding. Pioneers among the Filipino breeders were Carling Montilla, Miguel Garcia, Julian Artillaga and Manuel Abad. Among these filipinized breeds, the Montilla strain was the most popular in the 50s. As a result of these breedings, this checklist has been made. Thus, in the countryside, the Philippine native chickens are called in any of the following names or strains:

1. **Razah**. This is a native chicken upgraded by any of the Texas imported strains. The males of this strain are used as fighting cocks. From the author's documentation, the female is a good producer of eggs. It lays eggs with off-white to lighter brown shell and the size of the egg is almost comparable to the commercial White Leghorn egg. When given correct nutrition, some layers will not sit or hatch eggs any more.

2. **Malakingpulo**. This is the native chicken upgraded by the U.S. Yankzee. The strain is characterized by the presence of crest thinner than that of the pure Sultan breed of Europe. The males are used as fighting cocks and are found superior to the Razah. The females are more crested than the males and are also good egg producers. They lay off-white to brown-shelled eggs.

3. **Montilla**. The strain was developed by Carling Montilla from the native and imported fighting cock from the U.S.A. The males weigh from 2-3 kilograms when alive. The body conformation is similar to that of the egg-type Ancona, which is a Mediterranean breed. The females lay off-white shell eggs and are potential layers when given good nutrition and correct lighting scheme. Some are non-sitters, like the White Leghorn breed and therefore are good egg producers.

4. **Tartar**. The strain is a blend between the *Gallus sonneratti* and the *Gallus gallus*. Both the male and female are gray. The males are potential fighting cocks, but are rather smaller in size, ranging from 2.0 – 2.5 kilograms at adult stage. As fighting cocks, Tartars are characterized as fast and high fliers and, highly arboreal when raised through the let-loose method. The females lay smaller eggs with light brown shell.

5. **Mountain Rock**. Most of farmers in Malitbug, Bukidnon raise this strain of chicken. The strain is an offspring of the crosses between the barred Plymouth Rock of the U.S.A. and the native chicken of the Philippines. The males of the Mountain Rock are never used as fighting cocks. The females also are not used to produce egg because they are voracious eaters. Further, the eggs are small and almost round in shape. However, with its remarkable growth rate, both the males and females are good for broiler meat production. The adult males can weigh to about 3.5 kilogram alive.

6. **Basilan**. This strain is the representative of the *Gallus varius*. This has evolved from the genetic mixture of the Shanno from Japan and the Malay breed of the Asian continent. Through Sulu and Basilan, thus chicken entered Mindanao. The most popular Basilan cock has a smooth-edged comb, single median wattle and is closely feathered. The bird is characterized by long stout shanks. The predominant characteristic which distinguishes the strain is its body conformation and the presence of extra rectrices among the males. The body of the Basilan is erectile and its height extends to almost two

feet. The males are used in bladeless or slasherless cockfights which Maranaos in Marawi City called "Pataya." *Pataya* is equivalent to the "Patakbuhan" among the Tagalogs and Luzon region people. The heaviest Basilan cock weighs about 3.0 to 3.5 kilograms alive. This characteristic qualifies the Basilan as a meat type strain of chicken.

7. **Cobra.** This strain has evolved from the Yokohama of Japan and the Transylvania breed of the Americas. Both the Yokohama and the Transylvanian crossbreed perfectly with the Philippine native chicken. Cobras are to be found everywhere in the Philippines today. In Titay, Zamboanga del Sur, the Cobra males are used in the Patakbuhan cockpit. They are fast growing and attain big sizes. The male adult can weigh 3.5 kilograms when given proper management system while young. The Cobra can also be used as a meat type strain. The distinguishing characteristics include the body conformation similar to that of the turkey and has a naked neck (no feathers), which sometimes extend from the base of the neck to the head. The most popular Cobra cock has a rose comb, long saddle feathers and rectrices.

8. **Tarungan** or the Crested Strain. This strain is representative of the Sultan breed of America. Its distinguishing characteristics include that of a very pronounced crest. The males are occasionally used as fighting cocks. The females are potential layers when given proper nutrition and management system. The Tarungans differ from the Malakingpulo in the amount and contour of the crest feathers.

9. **Bongoton** or the Bearded Strain. This strain is the representative of the Muff breed. The males are also used in the cockpit. The females are potential layers when given proper management practices.

10. **Cantones.** The Cantones is the typical representative of the Delaware breed of the U.S.A. Some members of the strain come with feathery shanks and are heavyweight birds. The strain is primarily used for meat production and not as layers. In the cockpit, a defeated cock is derisively called a Cantones, meaning a slow fighter with no fighting stamina whatsoever. The young of the Cantones are slow feathering, but are fast converters of feed to protein. The adult cock can weight up to 3.5 to about 4.0 kilograms when alive.

11. **Balulang.** Like the Cantones, the Balulang is the representative of the U.S. Rhode Island Red crossed with the Hamilton of Texas origin. The adult weighs more than 3.5 kilograms alive. Sometimes, the males are used as fighting cocks, but they have lower fighting performance. The females are expensive to maintain as layers but are a good meat strain.

12. **Cati.** The Cati is the representative of the European Creeper. It has short shanks but the plumage comes in many varieties as the *Gallus gallus*. The term Cati is derived from the Maranao word meaning a predisposer or bait. The males of the Cati are used to catch the males of the Red Jungle Fowl by putting the Cati cock in between the snares and traps – hence, the term *Cati*. The adult Cati weigh not more than 1.5 to about 2.0 kilograms when alive. The length of the shanks average to two inches. The females are potential egg layers.

13. **Binabaye.** This chicken has been thought of as a mutant. In fact, it is not supposed to be categorized as a strain of the *Gallus gallus*. However, the Binabaye characteristic is a representation of the Belgian Campine breed in which the cock is also

hen-feathered. This characteristic explains the term Binabaye, meaning "like a female." The strain is a potential meat and egg producer and the males are also used as fighting cocks but are rarely found in the cockpits.

14. **Pang-an.** Like the Binabaye, the Pang-an is also believed to be a mutant. However, it is a representative of the five-toed Dorking breed. As recorded by Jull, the Dorking is an English breed of chicken. The five-toes trait is a dominant character and this can be observed even in the second generation offsprings. The Dorking successfully crossbreeds with the Philippine native and the birds are now to be found in almost all places in the country. The males are not recommended for the cockpit because its extra toe makes it difficult to set the blade or slasher. However, the Pang-an can be tapped as a meat and egg producer.

15. **Tukong.** The Tukong has feathers curling towards the ventral portion of the body. That has been observed to be its dominant trait. It is believed that such genetic character has come from the Araucana of Chile, Peru and the Pekin of China. Of course, the Pekin of China is distinguished by having a feathered shank, but the ordinary Tukong in the Philippines is not a shank-feathered strain. Whether the Tukong has evolved from Araucana or Pekin, the birds are potential meat and egg producers.

16. **Bisaya.** The term Bisaya is a Philippine symbolic native chicken. In its restricted sense, the Bisaya chicken has come from the Visayan islands. Bisaya does not refer to the homozygous *Gallus gallus*. Instead, it refers to all of the strains that are now genetically true-breeding and have generally adapted to the let-loose method of raising chicken in the country.

Basic Assumptions of Filipino Farmers

Any strain of chicken can be raised profitably when management practices suit the bird's physiological needs. Therefore, this management guide is written to take advantage of the potentialities of the so called "Philippine native chicken." These chickens (mostly colored) compete with the commercial strains (mostly white) in the market today. Raising these strains does not only mean meat and egg, but the fun and profit evolved from the enterprise make the farmer's life pleasurable and meaningful.

The Management Set for Philippine Native Chickens

Filipino farmers raise chicken either for meat, egg and or sport. In view of these purposes, farmers prefer to raise chickens which in the end can give the family the meat, the egg and the cock with good chances in the cockpit during leisure times. All the strains listed in this management guide, unless specified, can provide these needs. In view of these considerations, this management guide is designed to help farmers obtain optimum performance of the chicken called "Native."

The management set has been categorized into the following: the "Let-loose or Range Method" and the Broodyard Method.

I. The "Let-loose Method"

For the present purpose, the "Let-loose Method" of raising native chickens is defined as follows: The chickens are raised free from any restraint such as cage, compartment, fence or tie. When the chickens are released in the backyard without tie or restraint, they are raised in a "Let-loose Method." The method requires no fencing of the area. The chickens are free to roam in the community without limit.

In the beginning, the farmers raised chicken in the wild. They loosed the chicken in the farm and when meat was needed they snared, trapped or hunted the birds. Some farmers made use of dogs to help them hunt the chickens. The retriever dogs in fact became popular for this purpose. However, in more contemporary times, farmers generally practice the let-loose method. The chicken scratched and picked food just by themselves. If the farmers fed the chickens, they did it with available grains without balancing the ration. Chickens provided themselves with protein from the insects, worms and other animal by-products available along their way. The chance of getting a balanced diet, therefore, was very small. In spite of this situation, the farmers helped sustain the family income with the help of let-loosed and self-supporting chickens.

As experienced in the author's backyard farm, feedings chickens before sunset will improve growth, egg prolificacy and chick survival. Much more if the chickens are given a well-balanced ration. The studies revealed that the "Let-loose method" has proven profitable, following the feeding scheme shown in Table I. Of course, this feeding scheme should be coupled with better mating techniques, proper incubation and brooding technology.

Feeding Scheme for Let-loose Chicken

To attain optimum results, this prescribed feed and feeding schedule is recommended:

1. The Feed

Some methods of balancing ration will be discussed in the later portion of this management guide. But, in the study, a commercially prepared ration was used. It can be generalized that the commercially prepared ration sufficed for the nutritional needs of the chickens.

In the market today, there are several brands of feed available, such as:

- (a) B-Meg Feed;
- (b) General Feed;
- (c) Unifeed;
- (d) Producer Feed;
- (e) Minfeed and others.

The author used two commercial feeds, the B-Meg and the general Feeds. As these have passed the government regulation based on the prescribed provisions in Republic Act No. 1556 of August 20, 1956, as amended in 1972, the author believes that these feeds met the correct nutrient requirements. The native chickens given these feeds performed well. Obviously, Republic Act No. 1556 as amended in 1972 has been strictly implemented by the feed manufacturers. This law regulates and controls the manufacture, importation, labeling, advertising, distribution and sale of livestock and poultry feed.

the Philippines. Feed millers in the Philippines are governed by this Ra 1556. In fact, feed millers are required experimental animals to show concrete results.

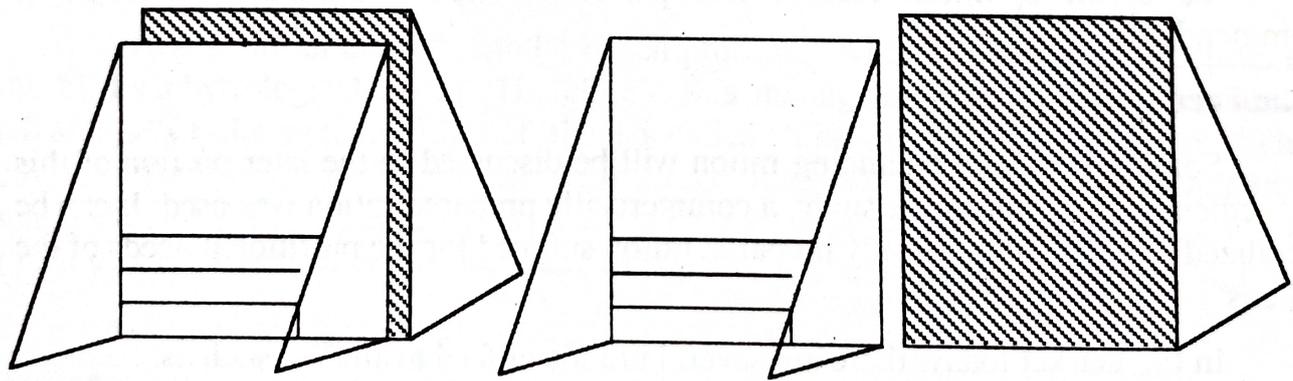
2. Suggested Feeding Scheme

Reminder! Better meat, egg and fighting ability of chickens are met with good nutrition. In fact, success in the chicken farm is due to the quality of feed and the feeding scheme.

Age of Chicken	Type of Feed	Amount of Feed per Head/day
1 day old – 11 days old	Booster	25 – 30 grams
11 – 30 days	Broiler starter	Add 5 grams every week
31 – 60 days	Chick starter	
61 – 105 days	Pullet Developer Pellets (PDP)	
106 – 135 days (females)	Growers	
7 days after start of laying	Layer's mash	120 grams
Cockerel and cocks	Fighter feeds or PDP	120 grams

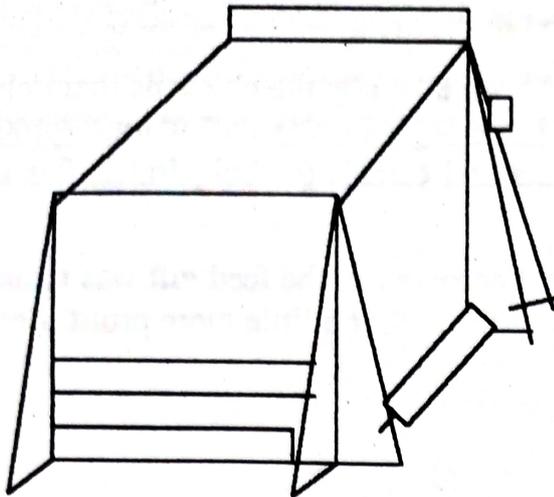
Table I: The feed, the age and the amount of feed given to native chicken raised the let-loose method.

Figure I. Sowing the Feeder-guards or Blinds arrangement.

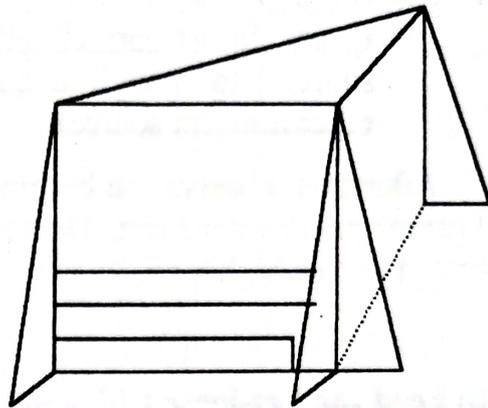


a. Two (2) Feeder-guards or blinds arranged in back-to-back position

b. Two (2) Feeder-guards or blinds arranged in a zig-zag form



c. Four (4) Feeder-guards or blinds arranged in square form.



d. Three (3) Feeder-guards or blinds Arranged in triangle form.

When there is an excellent feed and feeding scheme, all other factors of success follow. For our purpose, let us start with the feeding scheme found effective to native chickens raised on a "Let-loose Method." Table 1 shows the feeding schedule applied to Let-loose Chicken.

Another thing to remember is that the egg-laying ability and the size of egg depend largely on the feed and the feeding scheme. Strains that gain weight easily must be given lesser feeds than other strains when these are intended for laying stock. As proven by international breeding farms such as Hubbard, Euribred, H & N, breeder pullets that become overweight produce poor hatching eggs. The total number of hatching eggs, the amount of feed per dozen eggs and hatchability will seriously be affected by overweight pullets. Overfeeding only reduces the profit. However, the author's experience indicates that there is rarely any overweight pullets in a let-loose scheme.

As a requirement, native breeder pullets and cockerels must be properly fed and managed during brooding, rearing and growing periods. The author is confident that close adherence to the program prescribed here will give the farmer excellent results.

When to Feed the Let-loose Chicken

For optimum results, let-loose chickens are given ration at 5:00 – 6:00 in the afternoon. No feed in the morning force the let-loose chickens to scratch and look for food. In this schedule, lazy chickens and those slow in scratching and picking sessions get enough food before the day closes. As such, all let-loose chickens get enough nutrients before going up the perches for the night.

Important Observations

When 120 grams per adult chicken was not consumed, the following generalizations were established and corrected:

- (1) There was abundance of natural food in the area;
- (2) More or less, the natural foods had been taken by the chickens themselves in an almost correct ratio – that is, enough insects and worms (protein sources) to enough amount of grains and cereals (carbohydrates, fats and other nutrient source).

After this observation became a constant occurrence, the feed gift was reduced to 100 grams per day per head. The condition gave the author a little more profit. Lesser feed wasted means higher profit.

How to Feed the Let-loose Chicken

Instinct in chicken is what we call the pecking – or picking – order. The stronger ones tend to pick on the weaker ones. This condition affects the feeding scheme of let-loose chicken. The stronger ones tend to eat more than the weaker, leading to a condition termed as bossism. Constantly picked birds will no longer go with the flock and therefore cannot feed. These birds keep themselves out of the feeding area and go to the wilderness. They eventually return to the wild forms. It will be difficult to recover them and, therefore, are negative to profit for the farmers.

To avoid this situation, enough feeder-guards are installed in the feeding area. Feeder guards minimize picking or fighting among the chickens. (See Figure 1)

Feeder guards are dividers or blinds that prevent all the chickens from feeding from only one feeder and fight. The feeder-guards also prevent chickens from scratching the feed in the feeder troughs. The feeder-guards allow the weak ones to feed with less disturbance. As such, it would prevent the strong birds from picking on the weak ones during feeding sessions.

Feeder-guards or blinds are arranged in several orders (Figure 1).

- (a) Back-to-back arrangement;
- (b) Zig-zag arrangement;
- (c) Square arrangement; and
- (d) The Triangle arrangement.

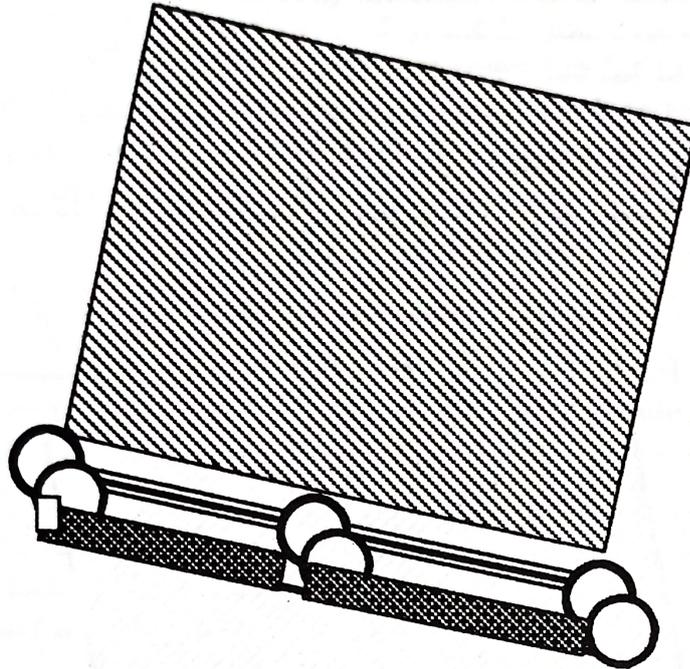
Materials used as feeders and feeder-guards

Depending on the availability of materials and the preference of the farmers, feeders and feeder-guards were built out of the following:

- (1) Bamboo and bamboo splits;
- (2) Lumber;
- (3) Steel and steel plates;
- (4) Concrete and concrete blocks;
- (5) Other cheap building materials.

1. Bamboo and bamboo splits

In the author's project, bamboo feeders and bamboo feeder-guards were used. The reason include that bamboos abound in the locality.



A. Figure II showing a bamboo feeder and bamboo split feeder-guards

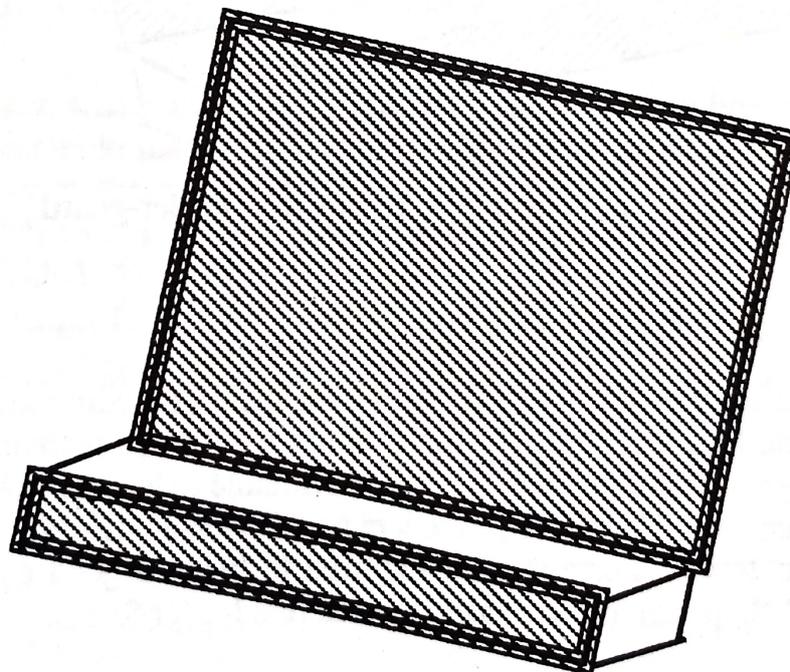


Figure III. A lumber feeder and feeder-guard

One objection to the bamboo feeder and feeder-guard is that this rots easily. However, bamboo stays longer than lumber when kept away from water. (See Figure II. Sample of bamboo feeder and a bamboo feeder-guard.)

2. Lumber

There is a huge problem with lumber nowadays. The whole country is short on lumber because of the high level of forest denudation. Further, aside from the lesser lumber supply, this material cannot withstand outdoor exposure. Therefore, lumber cannot last long in a let-loose farming method. (See Figure III for a sample of lumber feeder and feeder-guard.)

3. Steel

Steel is highly recommended as this material can last long under outdoor environment when coated with rustproofing paint. Further, steel is easily fabricated by steel shops.

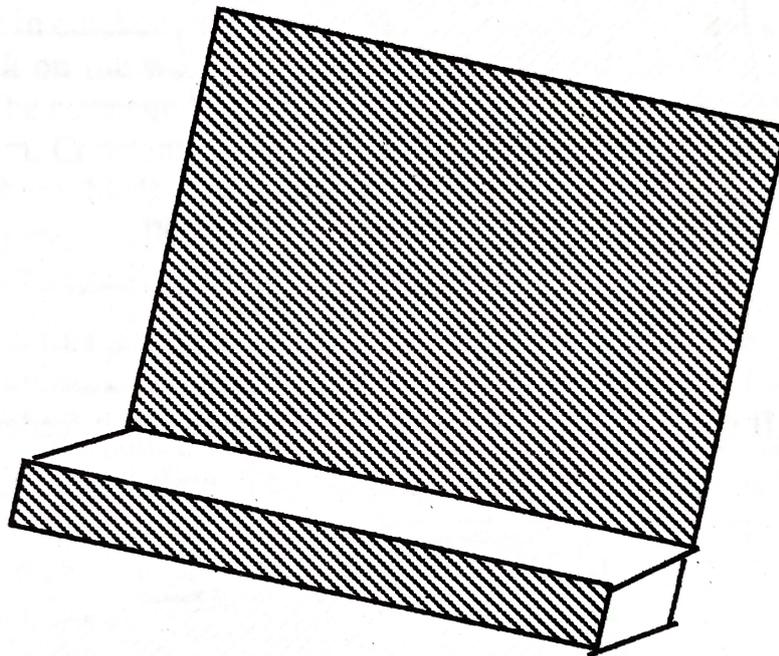


Figure IV showing a steel feeder with feeder-guard

4. The Concrete Feeder and Guard

Unless the location has been deemed a permanent feeding area of the let-loose chickens, a concrete feeder and feeder-guard is not very much recommended. Concrete feeders and feeder-guards eat much of the space available to let-loose chickens. However, if a wide area is available, the concrete feeders and feeder-guards are more durable than any of the other materials. Form-steel is required to make a good concrete feeder and feeder-guard. Steel shops can easily make the concrete feeder forms.

Recommendations

Because bamboo is the cheapest among the materials, it is recommended and would be wise for farmers in the countryside to use. However, when bamboo is scarce and long lasting use is the aim, steel is recommended. Steel feeders and feeder-guards are more movable than the concrete.

Lumber is not highly recommended because of scarcity of supply. Further, we need to reforest instead of cutting down the trees.

II. The Broodyard Method

In the history of the poultry industry, the let-loose raising and the range method was always done with a broodyard. Birds that roam too far to return to regular perches must be trained in a broodyard. The caretaker must work to tame the birds before these go on let-loose or range again. Aside from being used as a taming compartment, the broodyard has another function in the entire let-loose or range raising style. A broodyard can provide the farmers with a mating pen for a controlled breeding program.

1. Controlled Mating Among Range or Let-loose Chickens

If the chickens are sometimes used as experimental birds, crossbreeding and special matings can be conducted also. With this in view, a broodyard may be constructed. The broodyard answers the problems about recording of matings and the pedigree of the stock. Cockers are interested in tracing the lineage or genealogy of a cock or a hen. For this reason and for an efficient recording, and where single matings are to be done, a good broodyard must be made ready and available at all times. Much more, in multi-mating (many hens to a cock) trap-nests are used.

A practical broodyard used by cockers measures 10 feet wide, 30 feet long and at least 6 feet high. This type of broodyard was recommended of Ricardo Pe of *Ang Sabong* magazine. This broodyard is convertible to a multi-mating compartment. In practice, a broodyard of 300 square feet can accommodate 14 broodhens and one broodcock.

In this study, where the backyard was not so spacious, a broodyard of 18 square feet was used for a single mating scheme. The height of the broodyard was six feet to allow the bird to fly to the nest. A perch at the level of four and a half feet (4.5) was provided. The perch would make dung collection easier. In fact, in practice, a dung collector was provided during the evening only. The collected dung provided the researcher good fertilizer for his vegetable garden.

In Pe's broodyard, half of the building is not roofed in order to allow sunlight. But as observed in this study, even in a full-roofed broodyard, chickens still get enough sunlight. No signs of Vitamin D deficiency was observed among the let-loose chickens. Hens and cocks get into the broodyard only during the mating period. Hence, Vitamin D is not a problem in the let-loose method of raising chickens.

The Uses of the Trap-nest

Trap nests are necessary to keep the hen inside the nest after laying the egg. The caretaker releases the layer after it laid the egg. Trap-nesting has been practiced in many scientific poultry breeding centers. The trap-nest makes use of the snaring principle. When the layer steps into the nesting area, and steps on the releasing bar, the door closes automatically. After the hen is released, the caretaker can mark and keep the egg for incubation.

If the hen is a sitter, the eggs are returned when it starts the hatching activity. As experienced, some of the Philippine native chickens do not sit when given the layer's feed. This makes natural incubation difficult and, therefore, artificial incubation is then preferred.

However, a wider broodyard like that one recommended by Pe enhances natural incubation method.