

POULTRY.

POULTRY FEEDING.

The following extract is taken from the article on "A Guide for Beginners in Chicken Raising" by F. M. Fronda, of the Department of Animal Husbandry, Philippine Islands, in the *Philippine Agriculturist*, Vol. XIII. No. 8.

ESSENTIALS OF POULTRY FEEDING.

Chickens should be given feeds that are nutritious and palatable; they should be neither too bulky nor too concentrated. They should not have any bad effect upon the system of the bird, nor should they impart any undesirable flavour to the eggs. Above all, the feeds should be easily secured and cheap and, if possible, they should be only products and by-products that would otherwise go to waste on the farm. These feeds should be given in the form of grain, either whole or cracked, and mash consisting of finely ground products, fed either dry or wet. The grain feeds furnish the greater part of the carbohydrates and the mash supplies most of the proteins.

WHAT TO FEED.

Table I gives a list of feeds available for poultry feeding in the Philippines. This table was derived from Appendix Tables I, II and III in Henry and Morrison's "Feeds and Feeding," and from various other sources. Whenever possible, the digestible co-efficients for poultry were used, otherwise, the digestible co-efficients for ruminants were employed with the fibre free, in as much as poultry cannot digest fibre. The amount and cost of these feeds vary according to the time of the year and the locality. A judicious selection and a careful combination of such feeds as are available is necessary to feed a flock with profit, as no single feed contains all of the necessary nutrients and accessories in the proportion that is needed by fowls.

Table I.—Showing the average analysis and digestible nutrients in 100 Kilograms of feeds that may be available for poultry.*

Feeding Stuff	Total ash	Total crude fibre	Digestible nutrients		
			Crude protein	N-Free extract	Fat
Corn, cracked ...	1'5	1'5	8'9	63'2	4'3
Corn meal ...	1'3	2'3	7'0	64'1	3'4
Corn bran ...	2'4	9'8	5'8	49'9	4'6
Rice, rough ...	4'9	9'3	4'7	61'4	1'7
Rice polish ...	4'8	1'9	8'0	56'7	7'5
Rice shorts (<i>binlid</i>) ...	2'2	0'8	9'2	71'7	2'0 a
Rice bran ...	13'2	13'6	6'9	34'1	6'5
Rice meal ...	9'1	9'3	7'3	44'8	10'6
Sorghum ...	1'9	2'0	7'5	59'5	2'6
Copra meal ...	7'3	15'7	15'8	35'6	5'8 a
Cowpea ...	3'4	4'1	19'4	51'9	1'1
Soy bean ...	5'3	4'3	30'7	19'3	14'4
Soy bean, fat extracted ...	5'4	5'3	38'1	28'7	5'0
Mungo ...	3'0	4'4	20'4	56'6	0'9 b
Sunflower seed ...	3'1	27'9	13'5	15'1	20'3
Peanut without hull ...	2'2	2'6	24'1	14'7	40'4
Peanut waste ...	5'4	6'2	22'0	13'0	30'1
Cows milk ...	0'7	—	3'3	4'9	4'3
Whey ...	0'7	—	0'8	4'7	0'3
Fish meal ...	32'0	—	40'9	—	2'2
Dried shrimps ...	19'7	4'2	55'6	3'3	2'6 a
Snails, fresh ...	6'1	—	7'6	7'3	0'8 a
Fresh bone, ground ...	21'1	—	18'3	—	24'5
Bread ...	1'5	0'7	5'8	51'5	0'5
Barley refuse ...	5'2	0'5	8'3	60'5	7'0
Cabbage, outer leaves ...	3'1	2'8	1'7	4'3	—
Mixed grasses ...	1'8	10'6	1'7	8'6	0'6
Potato ...	1'1	0'4	1'1	15'7	—

* Derived from Appendix Tables I, II and III in Henry and Morrison's "Feeds and Feeding," 1917, and from other sources.

a. From analysis reported by the Department of Chemistry, College of Agriculture, University of the Philippines.

b. From analysis reported by the Bureau of Science, Manila.

COMPOUNDING OF POULTRY RATIONS.*

As a general rule, poultry feeding is carried on with one of four productive purposes in view: (1) laying, (2) growing, (3) fattening, or (4) breeding. The ration should be adapted to the purpose, otherwise there will be an unnecessary waste of nutrients. Laying rations should contain more protein than carbohydrates and should be given in form of grain, whole or cracked, and mash mixtures. The growing ration for young chicks is similar to this except that the ingredients are less in quantity and the proportion of both ash and protein is greater. The fattening ration should be in such form, condition, consistency, and palatability as will facilitate consumption of large amounts, and insure rapid digestion and assimilation. This is made up entirely of grain, either whole or ground. The breeding ration, in general, is frequently the same as the laying ration.

HOW TO FEED POULTRY FOR PROFIT.

There is no hard and fast rule as to the particular poultry ration to use. A certain ration found profitable under one set of conditions may be a failure under another, and feeds available and cheap in one region may not be in another. The safest guide is to use whatever feeds are available, the proportion of the different ingredients to be governed according to the object in view.

Feeding the Young Newly-Hatched Chicks.—Hard boiled infertile eggs, chopped very fine, shell and all, and mixed with four to five times its bulk, either of bread crumbs, boiled rice, or rice bran may be given to newly-hatched chicks. This mixture should be given at regular intervals, four to five times during the day, giving only a little at a time. Fine grit, plenty of green feed, and clean cool water should be available to the chicks at all times. This mixture can be fed to them during the first week of their lives, about one egg to every thirty chicks a day.

Feeding the Older Chicks.—A mash mixture composed of two parts by a weight of rice bran, one part of rice shorts (*binlid*), one part of copra meal, and one part of dried shrimps may be given four times a day. If dried shrimps are not available, either ground snails or *anay* may be fed at noon, giving enough to keep the chicks busy for about twenty minutes. Fresh clean table scraps may be used to great advantage. The chicks in addition to this, should be given a chance to run out in the yard as much as possible, and receive plenty of sunlight which is essential for their normal growth.

Feeding the Growing Stocks on a Wide Run.—Young chickens kept on a wide run may be fed either cracked corn or palay or both, and a mash mixture composed of one part each by weight of rice bran, of rice shorts (*binlid*), of corn meal, of copra meal, and of dried shrimps. This mash mixture should be available to the birds all day. If shrimps cannot be secured, some form of meat food as ground snails or *anay* should be given instead. Fresh table scraps may also be given. If the runs have a good vegetation, the chickens may get enough insects, bugs, and worms to supplement the feeds given them.

Feeding the Laying Hens.—A very simple, fairly cheap laying ration,

* In poultry husbandry, the term *ration* usually refers to the composition of the daily diet of fowls.

and one which may be easily secured is :—

- Grain : Cracked corn or an equal mixture of corn and palay.
 Mash : 2 parts rice bran.
 1 part rice shorts (*binlid*).
 1'5 parts of copra meal.
 0'5 parts dried shrimps.

Where a corn grinder is available, one part corn meal may replace one of the two parts of rice bran. The meat food may be omitted from the mash if it cannot be obtained at a reasonable price and table and kitchen scraps given instead, and enough ground snails to keep the chickens busy for about twenty minutes at noon.

Feed the hens only enough grain to partly fill their crops in the morning so that they will hunt for more out in the run and thus get exercise. Feed the mash in troughs left open all day; if wet mash is given, feed only enough to keep the chickens busy for about ten minutes at noon. Before the birds go to roost at night, give them all the grain they can consume so that they go to rest with their crops full.

It should not be forgotten that laying hens need plenty of clean, cool water. The drinking troughs should be cleaned and refilled at the time the hens are given their morning grain. Green feeds stimulate the production of eggs, and for this reason a good sod around the poultry house is a necessity. A wide grassy run is also necessary, for too close confinement in a barren yard favours a quick souring of the soil and the multiplication and spread of disease germs and parasites.

Feeding for Fattening.—Corn is one of the best grains for fattening chickens. Confine the birds to be fattened in a small pen and give them all the corn grain that they will consume readily. Do not give too much at a time or they will tire of it. Continue feeding them this way until the birds are fat enough to satisfy the feeder.

A mash of equal parts of corn meal and rice bran, moistened to a sloppy condition, is a good fattening feed. Confine the birds in a small cage and fast them for about twenty-four hours before giving them the mash. Soft boiled rice may be added with advantage to this mixture. Chickens may be fattened on boiled rice alone. The birds that are being fattened should not be disturbed, and, if possible, the fattening cages should be placed in semi-dark corners. The birds may become fat in a week, but this depends of course upon the degree of fatness desired. In any case, the fattening process should not last more than two weeks as the birds begin to lose weight after about that length of time.

GETTING HENS INTO LAY.

It often happens that after birds have come through the moult they are a long time coming into lay again. This may be due to one or two causes. It may be found that they have put on a lot of fat through being given food of too starchy a nature and deficient in albuminoids, together with lack of exercise. Fatty tissues retard laying, and such a condition should be remedied without delay. The condition and vigour necessary for egg production will be assisted by the addition of a little salts to the drinking water about every third day for a fortnight, a change of diet and burying all corn in litter.—The South African Poultry Magazine and Small-Holder, Vol. XVIII. No. 155.