

POULTRY MANAGEMENT

by

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Today poultry farming has gone beserk. Actually some poultry farms are not even classified as farms, but appropriately named factories. Why? Because they treat the chicken as a machine and not as a bird. The chicken is debeaked, decomed, dewinged and declawed. It is shot full of vaccines, antibiotics, hormones and other medicated food-additives. It is put in a cage with water and feed passing by. It never experiences the taste of green grass or the chance to scratch for worms and insects.

Is this the only way you can raise broilers or produce eggs profitably? Is there a simple, natural way for poultry production?

NATURAL LAWS

Modern poultry management is oriented toward high production in unnatural conditions and depends upon the technological developments of medicine and nutrition for its "success".

Any producer not wanting to emulate this system should carefully consider the management practices he is going to follow. Planning the whole programme with the right goals in mind is the first step. Secondly, common sense, securing the right knowledge and experience will prepare a manager to achieve the planned goals. It is not possible to give all the particulars needed for a successful poultry programme in one short article. But we will lay out principles which should help any producer wanting to enter poultry production without following the modern practice of "factory farming".

SETTING THE GOAL

If you intend to produce eggs as a commercial venture rather than just for home use you must first carefully consider the market. Modern practices are geared much more to *quantity* than *quality* production and in most of the *Western* world it would be uneconomical to supply this type of market with top quality eggs if no premium for *quality* is obtainable.

It is often possible to create a very good market for fresh eggs produced from healthy hens on a high quality diet. Thus marketing should be carefully examined first, as it could be disastrous to put a lot of money into fowls and buildings only to find there is no ready outlet for the produce.

Many of the modern practices such as severe overcrowding of poultry and artificially forcing extra eggs from fowls can reduce some costs. But that system depends heavily on the use of modern drugs and short bird-life to maintain the flock. Of course this reduces the bird to little more than a machine.

BREEDING AND SELECTION

Having decided to start a flock of poultry, the next thing to do will be to decide on what birds to buy.

The birds should be selected on the basis of those established varieties best adapted to your area and suited to your purpose. It is rather difficult to find "*pure*" lines, so once a flock is established it is desirable to raise your own

replacements. A "closed" flock can also be beneficial in disease control. Selecting the best hens for brooding purposes and continually culling poor producers along with those lacking hardiness and resistance is the obvious path to successful breeding and selection. At the same time one must watch any trends toward "in-breeding."

We believe that cross breeds and hybrids should be avoided. To-day we live in a world where man is on the biggest cross-breeding binge in 4,500 years. He is cross-breeding everything and this is contrary to God's law. To illustrate this we may take the example of God's instruction on "cattle" in Leviticus 19:19. (The Hebrew should be translated as *LIVESTOCK*.) Here we are commanded NOT to let our "livestock" gender with a diverse kind. Further information on this is given in our article, "Principles of Animal Breeding".

In mating birds of the *light* or high egg producing breeds such as *Leghorns*, generally one male is used for every fifteen to twenty hens. In the *dual-purpose* breeds, such as *White Rocks*, one male with ten to fifteen hens is a better ratio.

BROODING

We consider the best and easiest way of rearing chickens is with a broody hen. She will look after all your problems of heating, supervision and training the chicks to forage. Half a dozen hens will comfortably rear one hundred chicks. For many breeders, using hens may not be feasible at present, so they will have to fall back on brooding equipment.

One big problem you will have to be careful about is coccidiosis. Coccidiosis is caused by a parasite which the chicks most frequently pick up by eating their droppings. The best insurance against this is to move the brooder every two days. If this is not possible, raising them on top of fine chicken wire raised off the floor will keep them away from their droppings. Using a hen, you should have no coccidiosis problem as long as the hens have sufficient area to graze over.

FREE-RANGE BENEFITS

We believe that a vital key to good feeding is to allow the birds to have free-range access to good quality pasture.

Our hens have access to a pasture based around clover, grasses and herbs, plus being able to scratch in the nearby wood. In this way the hens are able to forage at will for worms, grubs, and seeds, which combined with their regular grain ration gives them a balanced diet, rich in vitamins, minerals and high quality protein. A good pasture

programme can greatly reduce feed costs and be a key factor in maintaining a healthy flock.

GRAIN AND ANIMAL PROTEIN

Our hens are given ad lib access to wheat, oats and barley as well as scraps from the College dining room. We have found that it is worth considerable effort to get good quality organically grown feed, if it is available.

Different feedstuffs can either be given separately, allowing the hens ad lib access to a balanced diet, or they can be ground and mixed. If you decide to mix your feeds you should be careful to get the right proportions. Good quality grain should provide the bulk of the diet in the form of needed carbohydrate and vegetable protein.

It is very important that the diet contains around 15% protein and approximately 25% of this protein should be *animal* protein. Unlike the ruminant animals, poultry cannot get all the high quality protein they need from vegetable sources alone. They need the vitamin B₁₂ and certain essential amino acids which they can get only from *animal* protein. Sources of animal protein are meat scraps, good quality fish meal, milk products such as skim-milk powder or liquid and butter-milk.

The best way to make sure that poultry get all the amino acids needed for egg production is to provide a variety of protein sources.

There are many commercial poultry rations on the market. If you use any one of these you should check that it does NOT contain *antibiotics* or other drugs. These drugs have no place in *any* system of organic farming. Their effects will extend right through the bird, even to contaminating the manure.

ANIMAL MANURE

Strange as it may sound, it is also a good practice to allow the poultry access to fresh or decomposing cow manure. Scientists have proved that poultry obtain vitamin B₁₂ (among other things) from cattle dung. This is one reason why one seldom sees healthier birds than those allowed to run free around the *farmyard*.

PASTURE MANAGEMENT

Good management of your free-range area will pay handsome dividends, not only in reduced feed costs but also in healthier birds. It is best to sow a good grass-legume mixture that suits your local area. Some form of rotation should be used to stop the formation of bare patches around the

poultry house. This could be achieved either by a moveable fowl house, by moveable fencing, or by rotating the fowls through a number of permanent paddocks.

New pastures should be allowed to become well established before allowing the birds access to them. At Ambassador College we have made frequent use of cattle and the mower to control poultry pastures. Sheep are even more effective in producing a dense sward that will withstand the damage that poultry can cause a pasture. Having recently acquired a small flock of sheep, we are using them quite regularly for this purpose.

This also brings to mind the question of pasture maintenance under *dry* seasonal conditions. Some poultry raisers may find it economically sound to maintain part or all of their free-range area in green productive condition by *irrigation*. Where this is not possible, pastures may need re-sowing almost annually. Care must also be taken to make up all of the deficiencies that a "dead" pasture will produce. These will include *vitamin A*, formerly obtained from *green grass* and *animal protein* from earthworms.

GRIT AND OYSTER SHELL

Even with access to pasture, an additional source of *calcium* such as oyster shell or bonemeal should be provided. (When the birds are inside all the time a source of grit is also essential for their digestion.)

SANITATION

Another very important point of care is *sanitation*. The poultry house should be cleaned preferably once a month or more often if needed. At each cleaning the building can be disinfected by washing with hot *lye water*. Another method is whitewashing several times a year. Either of these treatments will not only free the house of lice, mites and disease, but will also give the building a clean fresh fragrance.

After cleaning, the house should be bedded down with clean, dry bedding such as straw, sawdust, or corn cobs — whichever is available in your area. A good deep litter is very beneficial.

Problems with external parasites such as flies, lice, mites, ticks, fleas, bed bugs, etc., can be overcome by good sanitation and dusting procedures. Lime-sulphur or cresol spray can be used in houses and on roosts after each clean-out. Providing the birds with a good scratch box is important. Finely-powdered sulphur and diatomaceous earth in the scratch box will help the birds to keep themselves free from insects.

SUITABLE HOUSING

Part of sanitation is providing adequate space and ventilation. The floor space that should be provided per bird will depend on such factors as type of floor, size of bird, climatic temperature and ventilation.

Over-crowded conditions cause birds to develop such habits as *pecking*, *feather-eating* and *cannibalism*. These problems are apt to result in poor growth, poor feed conversion and poor laying, as well as possible disease outbreaks. General recommendations vary from *one square foot* per bird for broilers, to *four square feet* for the larger general-purpose type hens. For ample roost space, allow eight inches for each bird.

Poor ventilation causes some of the same problems as *over-crowding*; young stock, poor production in layers, debility and colds.

It has been estimated that a hen will breathe about 1.2 cubic feet of air per hour. One hundred birds will put approximately 3 gallons of water into the ventilation system daily. These figures give us some idea of the demands being made on the ventilation system in poultry houses.

In practice, the first signs of bad ventilation will usually show up in damp litter or even in condensation on the roof and walls. The fowls require dry conditions to avoid health problems. A well-ventilated house should remain dry, even in the winter.

The general recommendation is that air in the poultry house should be changed at least eight times an hour. This type of ventilation can be achieved by using natural wind forces. Fans have also been successfully used. It is most important that ventilation openings be baffled so as to keep out winds and driving rain.

The best construction to achieve proper ventilation and at the same time not be cold and draughty will vary from one area to another. It will depend on prevailing winds and the positioning of the house. We would strongly recommend that you get good local advice before building a poultry house. Perhaps you could get this from a Local Government *Poultry Officer*. Also most comprehensive books on poultry farming will have a section on buildings and ventilation.

LAYING BOXES

Laying hens need one nest to approximately every four birds; community-type nests can be used if preferred. If the birds lay their eggs on the floor, or in feeders, it may be that there is too much light in the nest. Therefore make the nest as enclosed and dark as possible.

CAPONIZING

Many people have written to our *Department of Agriculture & Environmental Research* asking about caponizing cockerels. This is a process which involves implanting a pellet of the female sex hormone *stilboestrol* into young cocks. Many reports have indicated that meat treated with this hormone can affect the delicate hormonal balance of humans eating the meat.

There are *three* alternatives to chemical caponization. *One* involves the practice of physical caponization. The *second* alternative is to kill the birds at a younger age — about sixteen to eighteen weeks, thus avoiding the need for caponizing. The *third* alternative is to simply forget all about the problem and let the birds grow naturally — hopefully not upsetting your neighbours in doing so. The meat of the non-caponized bird may be less tender but you can expect the flavour to be superior.

MARKETING & ECONOMICS

Most free-range poultry raisers today are aiming to provide only the needs of their own families, but this article would not be complete without some reference to economics and marketing in the poultry industry.

If you are just producing for your own home needs, why not increase bird numbers (where space will permit) to give a margin of production over and above personal requirements?

There will always be people nearby who will gladly purchase any surplus *free-range fresh farm* eggs. And many will pay a premium to again experience that old-fashioned flavoursome taste of mature poultry meat, raised under natural conditions.

Those who are keen to raise poultry under conditions tailored as closely as possible to the needs of the birds, can be sure that they are also meeting the needs of the *discerning* consumer. But if you intend going *commercial* you should be warned that you face *TWO* economic disadvantages: *first*, the need for a relatively large area of land compared to any *battery* "farm". And *secondly*, lower annual production per bird.

These two differences can be sufficient to make such a venture economically disastrous! However, they do not necessarily mean that *free-range*

enterprises *cannot* be successful. Then what is the answer to this seemingly *open and shut* situation?

First, DON'T follow the average *commercial* poultryman by making the venture your *sole* source of income! If you do you will be completely vulnerable to the law of supply and demand. Every time the market is glutted the *specialist* faces economic collapse. On the other hand, the man without his eggs literally "*all in the one basket*" is operating a much more stable business.

Secondly, *free-range* poultry raisers produce a *quality* product compared with the eggs and meat produced under *factory-farming* conditions. One should therefore capitalize on the superior product. Quality food should command premium prices.

In other words, these two points mean that the *free-range* poultryman need not think of himself as being in competition with *battery* producers!

These days it should not be difficult to secure outlets for premium quality food. Most agriculturalists are in the business of producing *LOW* quality food for the *mass-market*. It is distributed either in a cut-throat price war or through government-controlled marketing schemes. Let them get on with it and remember that the bigger the *mass-market* the bigger the demand for a specialized *quality* product!

Though *quality* is *BAD* under mass-marketing, *presentation* is invariably *GOOD*! By contrast, quality of *free-range* poultry products is invariably *GOOD* but every effort needs to be made to avoid *presentation* that is *BAD*!

ADDITIONAL INFORMATION

There are many books which may help you with particular problems. Most modern poultry books have helpful information on feeding tables, diseases and some aspects of housing. One such publication is *The Complete Poultryman* by Alan Thompson, published by Faber and Faber, 24 Russell Square, London.

Another book that we have been recommending for some time is *Poultry Keeping Simplified* by Jim Worthington. It is also published by Faber and Faber. It deals briefly and in clear, simple language with the type of open-range management described in this article. This book has just the approach to poultry-keeping which is so lacking in most other modern texts.