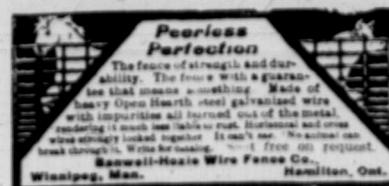
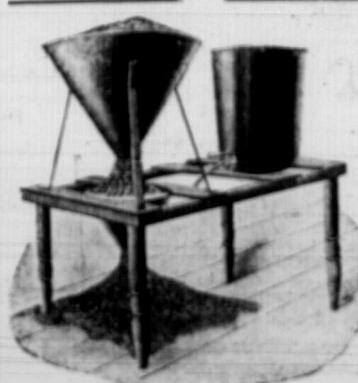


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WHEN WRITING TO ADVERTISERS PLEASE MENTION THE GUIDE

Breeding for Egg Production

How to mate the farm flock to increase egg production

By M. C. Herner, Professor of Poultry Husbandry

Manitoba Agricultural College

Those wishing to keep chickens only for egg production would do well to select an egg breed like the Leghorns, Hamburgs or Anconas. The Leghorns are probably the best of these. There are many varieties and sub-varieties in this breed, but the White variety stands out in a class by itself. These are just as good egg producers as any and besides they are almost the ideal broilers. The Leghorn is a bird of graceful curves, alert, active, hardy and prolific. They have no standard weights. They are probably better summer layers than winter layers as they are somewhat sensitive to weather conditions. Cold weather, long continued, will check egg production more in this breed than in the general purpose breeds, but on the other hand they also respond quicker after the milder weather comes on. Where summer eggs and a fair supply of winter eggs are the chief consideration, together with a breed adapted for broiler production, we cannot do better than recommend the Leghorns.

The Anconas are a Leghorn-Minore cross and are but little grown in this country. Type and general qualities are very similar to the Leghorns. The Hamburgs are a rounder and plumper bird than the Leghorn, but they are rather difficult to raise thru their first few weeks of existence. The Minores have nothing to command them to the ordinary fancier. The old time Minores might have been a fairly good chicken, but the present day Minora with his long, narrow body, long legs and lack of constitution has very little to commend him to anyone but the straight fancier. His constitution and egg producing qualities have been spoiled almost entirely by trying to breed to fancy qualities only.

The meat breeds are too slow to mature to be of much use in this country. The large amount of feather growth on the feet also goes against them, especially in the early, wet fall and spring months when they are liable to freeze their feet. Small flocks may work out all right, but for an average size farm flock they would require too much care and attention. For crossing on other breeds the Brahma is probably the best. Crossed with Barred Rocks they make pretty good roasters and excellent capons. However, there is no special need to go into detail about the qualities, type and so on of these breeds as they are hardly adapted to farm requirements.

What we have stated about various breeds are facts as we have been able to gather them during the last twenty years of experience in farm poultry work, working on large poultry plants and also college poultry plants. We have endeavored to give an impartial summary of these observations not on the basis that we know it all and this is the final word, but rather that we came to these conclusions gradually and that as the years go by and wider experience is gained we may from time to time make further observations and draw further conclusions in regard to the qualities of the various breeds of poultry.

Breeding for Egg Production

In breeding for egg production the farmer should select his best winter layers and mate them with an active vigorous male bird that grows quickly and matures early. The hens should of course be selected not only for heavy production, but also for vigor and vitality. If the hens are rather large and oversize a medium sized male will do, but this averaging up has to be taken into consideration. It is best to discard hens that are very much undersize because there is always a tendency in the offspring to deteriorate in size year after year, if such birds be used promiscuously. Under farm conditions it would be worth while to take 15 or 20 of your best layers, or hens that are laying in December and January, and separate them from the rest of the stock and trap nest them. In this way the best layer could be found and her eggs marked and her cockerels kept for breeding purposes the next year.



PROFESSOR HERNER

I firmly believe that the average farmer has in his flock the nucleus for a heavy laying strain only he does not know where she is. The cockerel, from this heavy laying hen should then be mated back again to the next winter's heaviest laying pullets and the following winter in his second year back to his own pullets, using his son, which should be from the heaviest laying pullet, to mate back to the yearling hens. This is the best method of breeding and selection I know of and if a farmer is fortunate enough to own a flock of pure breeds to start with he can soon build up a heavy laying strain of his chosen breed. Where mongrels are used to start with, pure bred males should be purchased the first year or two until the flock becomes uniform as to size and color and then this method of breeding and selection should be followed.

Our own experience in this line of breeding has been this, that with the use of the trap nest for identifying heavy layers and breeding from them only the production was raised from an average of 139 eggs a year up to 167 from the 25 best layers. Inbreeding was followed and later on line breeding, and what this method of breeding and selection will lead us to we shall see as the years go by. If we give due consideration to the importance of having only strong vigorous and healthy birds to breed from we are satisfied that the question will work out all right.

Investigation work has shown that heavy laying is transmitted by the male birds and therefore farmers generally would do well to use male birds from recognized laying strains. Such birds can usually be purchased at two to three dollars each, whereas males from exhibition stock very seldom sell for less than five dollars.

It is often claimed that for best results yearling hens should be mated with cockerels and yearling males with pullets, but it is difficult to state that such will always be the case. Personally I believe that environment, method, kind of food fed and the general care play a bigger part in the results, providing that the pullets and cockerels are mature, than any special way of mating. As a rule the yearling hen produces a larger chick, fluffier and apparently more vigorous than the pullet for the simple reason that she lays a bigger egg. If pullets are mature, healthy and vigorous I would expect, other things being equal, to get just as strong chicks from them as from the yearling hens.

The period of usefulness of the male from a breeder's point of view usually extends over the second year. The number of females to be mated with a male for best results decreases year after year. A male hen generally passes his period of usefulness after the third season. The number of females to go with one male depends somewhat on the breed. In the egg breeds one male to every 15 to 25 hens is about the right ratio; in the general purpose breeds one to 12 to 15 females; and in the meat breeds one male to 8 to 12 females. These ratios may vary with some individuals.

A specially active vigorous male in the lighter breeds will often fertilize the eggs from as high as 35 hens and in the general purpose breeds as high as 25 hens. Usually on the tenth to the fourteenth day after the male is put with the females the eggs will be quite fertile. On the third day some of the eggs may already be fertile if the hens are in full laying. After the males are separated the eggs will commence to show a decrease in fertility, covering a period of 14 to 20 days and even then an odd egg might still be fertile. But generally after the fourteenth day eggs may be guaranteed non-fertile if sold for market use. The practice of using alternate males has a tendency to produce higher fertility in the eggs. Using one male a day or two and then changing off to the other one is a common practice. It is, however, hardly practical for the farmer to follow this as it requires considerable labor at a busy season of the year.

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