Setting up the breeding pens and "Breeding Principles" excerpts from 'Bantam chickens by Fred Jeffrey

It is now time to start thinking about the breeding season and your mating pens. For this article I will assume that you have kept appropriate records for you to refer to as you make your pairing decisions. Keeping of records and the making of family strains is an article in itself.

Before you begin check over all your birds for pests or signs of poor health. Do not breed from a bird not in vigorous health. To make the best use of a breeding season and the number set eggs make sure you check the fertility of your male early. Candle the eggs at ten days. Low fertility can be a result of a poor male or there could be other factors. Environmental factors as in the eggs getting too cold before being collected, or kept to long before being set (between 10 – 14 days fertility seems to drop off significantly). Other factors can be diet, old feed or abnormal incubator conditions. Room temperature should be steady to avoid temperature spikes in the incubator and possibly killing the egg.

If you do change males; it is best to wait about 14 days to be sure on who the male parent is. Some breeder will still set the eggs laid during the 14 day period and just mark them as to male unknown/uncertain.

Hatchability is strongly affected by heredity. Hatchability differs from fertility as it is the percentage of FERTILE eggs that HATCHED. There are at least 56 lethal or semi lethal genes that cause death of the embryo or in young chicks. This again brings us back to record keeping and breeding for vigor, which will be a future article. In selecting eggs do not set misshapen eggs, eggs that are long in comparison to the width, cracked eggs, glass shells, or with poor shell quality.

There are many ways to setting up the matings. The ideal system, if small pens are available, is one male with one female, or perhaps one male rotated with three or four females which are caged individually. The cock would be moved every second day to the next pen. Chicks from these matings can be pedigreed as to sire and dam with certainty. Another good system is to set up matings of trios or fours, again in small pens with one male mated with two or three females. Chicks from these matings can be pedigreed with certainty on the sire side but the dam side would not known unless the breeder can tell by some characteristic of the egg which hen is laying which egg. Still another system is to mate 1 male to a small pen of 5 – 10 females. The breeder should use as many males as possible because the greater male number the less will be the inbreeding. For example if a breeder mates 1 male to 5 females and raises 50 chicks, he is more likely to run into severe inbreeding problems than if he mates five males to 5 different females and again raises 50 chicks. The latter approach avoids putting all eggs in one basket so to speak. *NOTE: the author is referring to using related males, son, grand son etc, not 5 totally unrelated males. The breeding goal should be to build a strain of birds or a family blood line that improves type, color and consistency in results.*

Principle 1. Mate best with best. If a trait is heritable it makes sense to select your best birds and mate them together. It is not reasonable however, to expect all the offspring to be as good of better than the parents because if this were the case we long ago would have bred the perfect bird. It must be recognized that if the breeder is practicing double mating the best x best may not mean the best show bird x the best show bird.

Principle 2. When introducing new blood don't be content always to measure the relative success or failure of the mating by the quality of the first generation. If your reason for bringing in new blood in the first place was a good one, you should be willing to go to a second generation before giving up on it.

Principle 3. Try to correct faults by mating extremes, even though some of the extreme types may have no value as show birds.

Principle 4. Avoid mating together birds with common faults, because if you do, you will intensify the fault.

Principle 5. Use the progeny test. **This is the most important of all the principles of breeding**. If you find that a pair of breeders or a sire mated to several dams, produce superior offspring, then it is worth your while to repeat the mating year after year. What you are doing is measuring the worth of the breeder, not by his pedigree, but by the quality of his offspring.

Principle 6. Progeny testing should be followed up by maximum utilization of superior individuals. This system sometimes is called line breeding. When a truly superior bird is found, he or she should be utilized—not only in repeat matings – but also with other good birds, related or not, and for the full length of his or her reproductive life

Principle 7. A superior bird from a superior family is better bet for the breeding pen than a superior bird from an average family. A family is defined as all the offspring from a pair of breeders. A sire family would consist of all the offspring from one male mated to two or more females.

Principle 8. Inbreed all you like realizing that strains vary enormously in how they hold up under it. Breeders who inbreed closely may expect, sooner or later, to feel the need of new blood. **As a general rule if 5 or 6 males are bred from each year and offspring saved from all matings, a strain maybe carried on indefinitely without introducing new blood.**