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Avoiding Inbreeding in farm animals

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AVOIDING INBREEDING

What is Inbreeding?

Inbreeding is the name given to what happens when baby animals are produced from the mating together of parents who are closely related to each other. Such matings that occur in uncontrolled situations may be for example, using human relationship terms, Father-Daughter, Son-Mother, Brother-Sister, Half Brother-Half Sister, Uncle-Niece, Nephew-Aunt or between First Cousins. The offspring or young animals produced from such matings are said to be inbred. However, if such an inbred animal is

time at which, on average, a new generation of animals replaces the earlier generation. This may be every six months for poultry, one to two years for pigs, sheep or goats and five to six years for cattle.
Alternatively, farmers can buy new, unrelated, breeding males as those in the herd or flock reach the stage at which they are in danger of mating with their own sisters or half sisters.

If you don't do this you may get away with it for some time but if you take these precautions you will be sure to avoid the problems caused by inbreeding.

Usually in these farm animal populations the numbers of breeding females are much greater than the numbers of males. Hence,what is important in reducing inbreeding is the number of breeding males. Very little inbreeding will take place if there are eight or more males mating with a larger number of females at any one time. A farmer may get away with having as few as five or six males.

However, the best way to avoid inbreeding is to move the breeding males around among the herds or flocks of different owners. Farmers can exchange bulls, boars, rams, bucks, roosters or drakes with other farmers on a regular basis, preferably at the same intervals of

mated to an unrelated animal the offspring from that mating are no longer inbred. In a small herd or flock, if matings are not controlled to avoid those between close relatives, the amount of inbreeding in the whole herd or flock increases over time with each new generation. The consequences for animal production can be most undesirable.

The picture below shows two rabbits from different parents mated together. This is to avoid the problem of inbreeding.

What are the problems?

Inbreeding causes animals, herds or flocks to be less productive than expected. The general effect of inbreeding is to make animals less hardy or to reduce fitness. Animals have a reduced ability to cope with poor nutrition, the hot and humid climate, parasites or other causes of ill health. Fertility, the numbers of offspring born or the ability to produce offspring, can be reduced. All human societies and cultures prohibit marriages between close relatives because of the dangers of these same problems.

How can we avoid it?

In large herds or flocks, with uncontrolled mating, some inbreeding will take place but the effect in the whole herd or flock will be small.

Australorp chickens from different parents are housed together. This is a way of controling inbreeding among chickens.