

sumption of food is increased, this being caused by the greater growth of plumage, bone, &c., necessary for the development of an adult bird. Obviously this process must be completed before the matured adult stage can be attained. This, however, is not the only drawback, for even if a fully developed cockerel is marketed in absolutely prime condition it does not appeal to the poulterer, to whom it is known as a "stag." The fact of it having a well-grown spur, sharp at the point, reduces its value as a table bird. Such a bird is coarse and larger than is generally desired for the high-class trade. It is the flesh of a prime four- to five-months-old bird that is the most sought, and which commands the highest value.

BREEDING-PLANS.

It is now full time that the breeding operations were planned, especially in the case of the heavier breeds, such as Rocks, Orpingtons, and Wyandottes, as July and August, or early September at the latest, are the best months for hatching out the chicks of these breeds. Breeding-birds should be mated a few weeks in advance of the time that the eggs are required for hatching purposes. This will give them an opportunity of settling down, especially the male bird. Very often a vigorous male will exhaust itself at the outset, and it will be some weeks before it settles down and satisfactory fertility is obtained.

As to the number of hens to put with a male, this depends entirely on the vigour of the male, the range provided, and also the breed of the birds. When breeding-stock have their liberty, good results may be obtained with one male to twenty or even more females, but when confined in a run the number must be considerably reduced. No hard-and-fast rule can be laid down in this respect, and the poultryman must use his own discretion and be guided by the number of fertile eggs produced. As a general rule, when the birds are confined, and during the early season, six or eight hens of the heavier types are sufficient for one male. If the male is a vigorous one this number may be increased as the season advances. In the case of the lighter breeds, such as Leghorns and Minorcas, eight females may be mated to one male, and in the spring months up to twelve or even fifteen. Of course, when a high percentage of infertile eggs is produced it does not always follow that the male is overmated. Sometimes this is due to too few hens in the breeding-pen. When it is observed that the hens' backs are becoming bare and the feathers worn off this indicates that the male is a vigorous one and that more hens are required.

In choosing birds for the breeding-pen, whether it be males or females, aim for points indicative of constitutional vigour, such as a bold fiery eye, bright-red comb, a clean face free from feathers and wrinkles, short shanks wide apart, tight glossy plumage, and activity in habit. In addition the birds should be of a good size of their breed, possess breed-points, and be good feeders. Of course, in speaking of breed-points it may be safely said that there are few birds in any flock which have not got a fault. Therefore in mating up the breeding-stock it is essential to choose a male that is strong where the females are weak, or *vice versa*. Never breed from a pullet if it can be avoided, chiefly for the reason that on its appearance it may be selected as an