

III. FURTHER CONSIDERATIONS AFFECTING THE RETURNS OF THE INDUSTRY.

The problem of reaching and maintaining a maximum return involves more than the successful rearing to maturity of every fox that may happen to be born. It is of equal importance that the number born should be as great as the nature of the case makes possible. This implies that in any complete study of the problems of fox-raising questions of fertility and fecundity must be taken into account. These are undoubtedly in part questions of nutrition, but other factors—hereditary, psychical, climatological, etc.,—are also in varying degrees involved, and it would be desirable to have their relative importance more exactly elucidated.

A not irrelevant question is that of the proper age for the first reproductive effort of the adolescent animal. It has become the practice to mate the foxes selected for breeding purposes at the earliest possible moment, that is, in the winter following their birth, while they are yet less than a year old. It is very doubtful whether this is a practice to be recommended, and it should be considered whether it would not in the long run be more economical to postpone mating till the animals reach their second winter. A series of comparative tests might be planned to throw light upon this problem.

Again, mere numbers is not enough. The final aim of the fox-industry is the production, not so much of perfectly nourished and healthy animals, as of valuable pelts. These are by no means necessarily the same thing. A red fox may be physiologically as perfect an animal as it is possible to conceive in the market value of its fur it may be far surpassed by a pure-bred silver fox exhibiting the worst deformities of rickets. The fox in captivity is bred in short for certain special characters, and a failure to present these in perfection is as definitely a source of loss to the owner, as early death from malnutrition. Beside the fundamental problem of nutrition we must place therefore the fundamental problem of breeding and inheritance. The more important aspects of this problem, as related to the fox industry, will be discussed in another publication of the Research Council.