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Factors In Infertility

The failure of physical reproduction is one of the dog breeder's most perplexing problems. Before dealing with possible causes relating to either infertility or physiological abnormalities, it must be emphasized that the most common cause of so-called infertile mating is the fact that many owners present their bitches for service at the wrong time of their estral cycle. It is important to ascertain the full breeding history of the bitch before condemning her as sterile. Bitches and dogs may be said to be sterile when the ovum in the one fails to form or be expelled, or is incapable of being fertilized by the sperm of the other; or when the sperm of the male is impotent, non-mobile or absent.

The standard test for ovulation is the vaginal smear method. However, according to a report in *Modern Veterinary Practice* (September, 1965) another method for determining the proper time to breed has proven successful. A glucose strip, the kind used in routine examination of the urine, is introduced into the vagina so that it comes in contact with the cervical mucus. The presence of glucose is indicated by a change of color in the strip, which is a sign that ovulation has taken place. This phase lasts usually from one to four days and, of course, is the time when conception is most likely to result.

Poor Management

The physical well-being of any dog is, of course, dependent on general health, the exercise he gets and his nutritional state. A good balanced diet is essential to enable the body to function correctly. It is not a matter of quantity of food but of supplying food that is composed of the right elements. An adjustment in the diet will often make a so-called infertile dog produce.

The production of faulty sperm may be induced by premature or overuse of a young dog, too close confinement, or other forms of bad management. Parasitism can decrease fertility in both dog and bitch.

The bitch, too, requires a wholesome, balanced diet and exercise to remain healthy and productive. A bitch which has been allowed to become obese needs special treatment. She is less likely to conceive or, if she does, may suffer from uterine inertia and a difficult whelping. Lethargy and corpulence are often the causes of missing. Obviously, a reducing regime means cutting down on food intake and increasing exercise.

One of the least understood influences on the fertility of both bitch and dog is the role climatic changes play. And therefore after making a move from one climate to another, the animal should be given time to become adjusted. Other



environmental conditions may be factors in failure to reproduce. In some cases a change of regime may bring results.

Physiological Abnormalities and Illness

The causes for infertility in this category can broadly be divided into two main classes: (a) physiological or anatomical abnormalities, and (b) bacterial infection, tumor formation or other specific lesions.

It is recognized that even slight disfunction of the endocrine system may result in failure to conceive. The reproductive mechanism is delicate and the smallest defect can throw it out of balance. Hormone deficiencies are a significant factor in relation to reproduction.

A bitch of otherwise sound constitution may lack one of the essential hormones and not come into heat, have sexual frigidity or abnormally long heats. These conditions can usually be successfully corrected by hormone treatment.

Nymphomania is a condition in the bitch which can result when one or both of the ovaries contain multiple cysts, keeping the bitch in constant heat. Such bitches are often ill-tempered and inclined to fight, both with dogs and other bitches. This condition usually requires surgical removal of the affected ovary or ovaries.

Various disease conditions of the generative or other organs, as well as general ill health, may account for temporary or permanent infecundity. Among the more common abnormalities of the bitch are metritis, vaginitis or ovarian cysta; a dense tough hymen or a restricted canal due to adhesions of the vulva or vagina. Sometimes the neck of the uterus is constricted, impeding the passage of semen; or it may be unusually dilated, permitting the fluid to escape.

Among dogs the conditions that may cause infertility are numerous. There is the genetic problem of monorchidism and cryptorchidism and though the former can be bred, as a rule, they should not be because of the inheritance factor.

Phimosis is a condition in which the dog is unable to properly extend or retract his penis. The condition can be corrected by surgery and generally does not result in sterility.

According to E. Fitch Daghish, veterinary surgeon, in the British publication Our Dogs, inflammations and infections are equally dangerous to the dog and the bitch. An infection of the genital passages in a bitch will produce a strongly acid reaction in the vagina and uterus, killing the sperm before they reach the ova. A dog serving such a bitch is likely to be infected and pass the infection on to other bitches he may serve subsequently. Thus he may get a wholly undeserved reputation of being infertile. Generally, these conditions are treated with



antibiotics and do not have a sterilizing effect.

Tumors may appear in dogs of any age but are most common in those over five years of age. Infertility caused by such tumors can sometimes be corrected by surgery, depending on the type and extent of the growth.

A serious illness may be followed by a period of sterility in either a dog or a bitch; normal fertility is generally restored after a few weeks to a year.

Old Age as a Factor

As the dog grows older his sexual desire is reduced and his fertility lowered. In the bitch, periods of heat tend to become less regular and more widely spaced. Treatment with hormones may lessen these natural effects, but the fact that a bitch still comes in season does not guarantee that she is still fertile and too much should not be expected. The exact age at which a dog or a bitch loses the power to reproduce is influenced by many factors and is different from one dog to another.