

Breeding Management in Queen Cats

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Introduction

Cats as pets have become very popular among the pet lovers and keepers. Due to their smaller size as compared to dogs, cats as pets can be more conveniently managed. A good knowledge about cat breeding is very important to understand their behaviour and to manage them efficiently.

Reproductive system of in queens consists of paired ovaries, uterine tubes, uterus, vagina and vulva. The queen has four pairs of mammary glands arranged in two parallel, symmetrical rows. Queens attain puberty between 4 and 12 months of age but is influenced by the day length and their body condition. Queens born earlier in the year may show pubertal estrus in the next year while those born during spring and summers may show pubertal estrus the following January. Also, they reach puberty at a body weight of 2.3 to 2.5 kg. Most cats are anestrus during short days i.e. during winters. Oriental breeds, i.e. Siamese, Burmese, may attain puberty at a very young age, whereas longhaired and Manx queens may have a later onset of puberty i.e. 11 to 21 months, than shorthaired breeds. Queens have a long reproductive life i.e. 14 or more years, although litter size may be reduced with the advancement of queen's age.

Estrous cycle in queens

The queen is a seasonally polyestrous, induced ovulator and ovulation is induced by coitus (mating). Queen generally has 2 or 3 heat cycles during the breeding season (typically February to October). Different stages of estrous cycle in queen are proestrus, estrus, post estrus/metestrus, diestrus and anestrus.

- ✚ **Proestrus:** It is shown by a few queens only. During this phase, the queen shows sign of continuous rubbing of head and neck against any convenient object but will not permit the male to mate.
- ✚ **Estrus:** It is the phase of receptivity of queen for mating. During estrus, queen is receptive to male and shows certain behavioural signs. It crouches with fore limbs (front legs) pressed against the ground and extends the back leading to lordosis (downward bending of the back) and exposes the vulva for mating by deviating the tail to one side. The queen frequently meows to call the male, shows restlessness and affectionate head rubbing to owners. In absence of male, it shows rolling, head rubbing, treading with the hind limbs (rear legs), lordosis and tail deviation. This behaviour can last for 3 to 20 days and can repeat in 10 to 40 days if the queen is not bred.
- ✚ **Post estrus:** It is the term used for interestrus period that comes after one estrus and before the next estrus in the queens that have not been mated, means where ovulation has not occurred. This phase is of 8 to 10 days of duration.
- ✚ **Diestrus:** It is the phase following estrus in queens that have been mated and subsequently ovulate. Its duration is almost 40 days in queens that have pseudo pregnancy (false pregnancy) while almost 60 days in the pregnant queens. Generally, estrus behavior is seen 10-27 days after weaning of the kittens. Lactational anestrus can be seen in lactating queens for 2-3 weeks after weaning.
- ✚ **Anestrus:** It is the seasonal absence of cycling activity that occurs in the late autumn months i.e. during October, November and December in queens.

Mating behaviour in queens

When in estrus, usually queens are taken to the male cat (tom) for breeding. Rolling, rubbing against objects, kneading with the back feet, and yowling repeatedly and loudly are the characteristic features of mating behaviour in queens. The area used for breeding should be quiet, familiar to the tom, and allow for observation, minimal interference from people should be there. Unless there is some security concern of queen or tom, the courtship should not be interrupted. Toms mate to the point of exhaustion, but queens may not let the tom remount for some time and usually go through a period of rolling and grooming after one mating. It is generally advised to go for multiple breeding over a period of 2 to 3 days as



queens are induced ovulators. Queen and tom should be separated from each other between breedings so as to prevent exhaustion and fighting. Queens are typically bred during each sequential estrus period and then spayed when no further bleedings are planned. Sequential breeding should be adopted in queens and if no further bleedings are intended, it should be spayed. This practice is important to prevent pyometra i.e., infection of the uterus.

Management of pregnant queens

Gestation / pregnancy lasts about 2 months (60 to 63 days) with an average litter size of 4 kittens. Sometimes queens get mated to more than one male during one heat period, which results in kittens from the same litter with different sires. Signs of pregnancy include a large abdomen, increased appetite, and swollen mammary glands that may release milk when squeezed. When the queen is in last phase of pregnancy, she seeks a nesting area and places bedding in a quiet, secluded spot. During pseudo pregnancy, or false pregnancy, the non-pregnant queen sometimes shows the signs of pregnancy, this usually begins at the end of estrus and can last for several months. In order to confirm whether the queen is pregnant or not, evaluation / diagnosis can be done by a veterinarian by physical examination (palpation) of the abdomen, ultrasonography or radiography (X-rays). Pregnancy can be detected by using ultrasonography from day 21 to 30 onwards after breeding. At more than 55 days after breeding, X-rays can be used to determine the number of kittens in the litter.

Nutritional demands of the body increase both in pregnancy and nursing stage. A queen needs 25% more food during the last 3 weeks of pregnancy and 2 to 3 times more food than normal when she is nursing. Queen should be fed more frequent meals or should be allowed to have free access to food in order to meet the increased dietary needs. She is likely to lose weight during nursing despite eating extra kitten food. In order to prevent this and preparing her body for these increasing demands, she should be fed more during pregnancy so as to increase her nutritional reserves in the body. Make sure to feed her a complete, balanced food but do not give her any dietary supplements. The pregnant queen should be separated from other cats during the second half of the pregnancy in order to reduce the risk of infectious diseases and accidents.