



RACING AND WAGERING WESTERN AUSTRALIA

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## **RACING AND WAGERING WESTERN AUSTRALIA**

*Breeder's Education Pack*

*Unit Two – The Pregnancy*

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### Unit Two - The Pregnancy



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Racing and Wagering Western Australia  
Breeder's Education Pack

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## 2 The Pregnancy

### **The Mechanics of Mating - Getting your Bitch Pregnant**

Many years ago, the accepted practice for mating was to put the stud dog and the bitch in together on day ten of her cycle, and again 2 days later - very little was known about the bitch's cycle and there were no tests to determine when she was actually ready to be mated.

Luckily, science has progressed where we now have a number of different methods of getting bitches pregnant along with ways to tell when she is most fertile and should be mated. Frozen semen technology means we can now access dogs from interstate or overseas without the need to ship the bitch to the dog, opening up a lot more opportunities to capture the best bloodlines. Artificial Insemination techniques are getting better and better as new freezing techniques and extenders are used.

#### **Getting the Timing Right**

Timing the mating of a bitch is very important. Get it wrong and you will find the bitch either has a very small litter, or worse still, misses altogether. This can be very frustrating as you then have to wait six or more months before you can try again.

The first step to getting the timing right is knowing when your bitch is due to cycle. This way you can be checking her regularly and will certainly notice when she first comes in. Marking her seasons on your calendar will give you lots of information. Bitches tend to cycle regularly - maybe every 6 months, maybe every 10 months - each is an individual but they tend to repeat the same interval each time.

Knowing how long her season is normally is also helpful. If she bleeds for 4 weeks, it may be that she ovulates later than most bitches, if you hardly notice any blood at all, she might be a 'short cycler' and ovulates early. Luckily we now have a blood test that can tell us when the bitch is likely

to ovulate - the progesterone test. This replaces the older, less reliable methods of detecting ovulation such as vaginal cytology, changes in discharge colour, or relying on the stud dog to know.

By taking repeated progesterone tests over a number of days, the rise in the progesterone level that is associated with ovulation can be detected. This is certainly essential if you are using frozen semen as it is much weaker than the fresh variety. Frozen semen does not live for very long after insemination, meaning the timing has to be spot on. On the other hand, fresh semen can survive a few days, and has even been known to last up to a week which increases the chances of live semen being present when the eggs are ready to be fertilised.

#### **Natural Matings**

Some studmasters will allow their stud dogs to perform natural matings, although the more popular sires are more likely to be mated using artificial means due simply to the number of bitches they would have to mate.

During a natural mating the dog is allowed to mount the bitch, and 'tie' with her (this is where the dogs remain 'stuck' together for a period of time, usually tail to tail). Natural matings require a bitch that will 'stand', and a dog who is physically capable of mounting the bitch. Older males may find natural matings physically challenging, and there can be difficulties if there is a large size difference between the dog and the bitch. Sometimes, the studmaster may assist the dog by standing a tall bitch down hill, or by physically assisting the dog to mount.

## **Artificial Insemination - Fresh**

If the bitch will not stand or the stud dog is not able to mount the bitch, or in cases where the stud dog is required to serve many bitches, the studmaster may decide to use artificial insemination instead.

Usually the semen is collected from the dog after giving him a chance to sniff the bitch. Sometimes the dog will even be allowed to mount the bitch, but the 'approved person' will re-direct the dog, allowing the semen to be collected into a warmed container. From here the semen is drawn up into a syringe, and a catheter is used to inseminate the bitch almost immediately.

If the dog lives interstate, another option is the use of chilled semen. The semen is collected similar to frozen semen, but instead of being frozen, the semen is chilled for transporting. The semen can then be shipped and inseminated into the bitch. Timing of semen collection is vital with this method as the semen only lasts about 3 days when chilled. This method is used quite a bit in the USA, but is less commonly used in Australia.

## **Artificial Insemination - Frozen Semen**

The use of frozen semen is becoming increasingly popular throughout the greyhound industry. Through a special process the semen from a dog is collected, processed and then frozen into 'breeding units'. The frozen semen can then be shipped around the country or around the world. This means that it is possible to have access to dogs that would not otherwise be available (maybe due to quarantine requirements, or because the dog is deceased).

A stud dog may have frozen 'breeding units' located at a number of facilities. When you apply to the studmaster to use the dog, you will need to have one of these units transferred into your name prior to you being able to use it. It will then need to be shipped to the facility that you plan to use in a special 'shipper' that maintains the temperature of the semen so it does not thaw.

When the bitch is ready to be mated, the frozen semen is carefully thawed, and then used to inseminate the bitch, either trans-cervically (a non-surgical method), or surgically. It is vital that the bitch is at the correct stage of her season as frozen semen does not live as long as fresh semen, and is not quite as robust. The inseminating veterinarian will examine the semen after it is thawed to check its quality and post-thaw motility.

Surgical insemination involves anaesthetising the bitch and making a small incision in her abdomen so that her uterus can be gently lifted out. The semen is then injected directly into the uterus via a fine catheter with half of the semen being injected into each side (called 'horns') of the uterus. The uterus is then gently placed back, and the surgery site is sutured shut.

Trans-cervical insemination is preferred by some AI facilities as it does not require the bitch to have a general anaesthetic. With the bitch awake and standing, a fibre-optic scope is used to guide a special catheter through the cervix,

and the semen is deposited inside the uterus. Done by an experienced and proficient person, this method can be completed quite quickly, and the results are thought to be similar to the surgical method.

Which method is used will depend on the facility and the veterinarian that you use. It is a good idea to talk to the person who will be doing the insemination before the bitch comes into season so that you know exactly what they need from you, and what is involved. You will also want to know what the costs are likely to be, and make sure the semen arrives well in advance so that there is no last minute rush.

**Remember: If you are seriously considering breeding, start to think about understanding the mechanics of mating - well before the breeding is to take place**

## **Care of the Pregnant Bitch**

Well you have done all the planning, and the bitch has been mated. You will have made sure that she was in top shape prior to being mated, and now it is up to you to give her the best of care to ensure that her pregnancy is uneventful.

First of all you are going to be eager to know if she is in whelp. Bitches have the same hormone cycles whether they are pregnant or not, and they can have a 'pseudo'-or 'false' pregnancy as a result. It is quite normal for a bitch who is not pregnant, and who was not even mated, to put on weight and produce milk. They may even display the behaviours associated with whelping such as digging a nest or mothering things. So it is not reliable to use behaviour, teat development, or even weight gain as indicators.

Instead there are a number of techniques to determine if a bitch is pregnant. There is no real way to tell within the first few weeks of the pregnancy, but once the bitch reaches the third week it may be possible for an experienced person to palpate (feel) her gently and feel the pregnancy.

Another, more reliable, way to see if your bitch is pregnant is to have her abdomen examined by ultrasound (similar to humans). Ultrasound is the preferred method of pregnancy detection as you can actually see the puppies and it is sometimes possible to get an idea of the number of pups to expect. With ultrasound the heart beat of the puppies can be seen from about Day 28 of the pregnancy.

X-rays can be used to detect pregnancy, but not until the last week or so when the bones inside the puppies start to calcify. An x-ray is often used to check for any remaining pups if a bitch is having problems during whelping, or to determine litter size in the case of small litters.

## **Nutrition of the Pregnant Bitch**

In the early stages of pregnancy, it is important not to over feed your bitch. She should continue to eat a well-balanced diet at the same rate as before she was pregnant. If her diet is nutritionally balanced and complete, she will have no problems growing puppies. If you over feed her, she will put on weight and this predisposes her to problems giving birth.

If you feed a diet that is not balanced, you will deprive the bitch and growing puppies of vital nutrients. Over-supplementation is just as dangerous as a diet that is lacking in essential nutrients. In particular over-supplementation with Calcium during pregnancy can be particularly detrimental and can lead to problems when the bitch has whelped.

As the bitch moves into the latter stages of the pregnancy, her intake of food will need to increase, but you may have to increase the number of meals, rather than increase the amount in each meal. This is because the puppies will be taking up much of the space in her abdomen and this does not leave a lot of room for the stomach to expand. If you are feeding a dry kibble, you may choose to gradually change the bitch over to a puppy formula as these are more energy dense and tend to have slightly higher levels of protein and calcium.

If you are not sure if what you are feeding is suitable, please take the time to consult your vet about what you should be feeding.

## **Exercise**

It is important that your bitch continues to exercise regularly. Fit, healthy muscles are necessary to help push the puppies out. Your bitch should have some exercise everyday, although the amount may decrease as she gets nearer to her due date. If it is summer time, make sure she exercises in the cooler parts of the day, rather than in hot weather, as you want to avoid extremes of temperature.

Early in her pregnancy, it is quite safe to run the bitch with other dogs, provided they are compatible, but as she gets to the more advanced stages of pregnancy, she probably will not want to be bumped and jostled with, so you might prefer to exercise her on her own.

## **Other Care**

Make sure your bitch is up to date with all her worming and parasite treatments. Before using ANY product or medication on your bitch read the label carefully to ensure that is safe to give a pregnant bitch. **If you are not sure, don't use it.**

It is important that your bitch is maintained in the best possible health. If she does become unwell, be very careful that any necessary treatments are safe. There are some drugs that should never be administered to bitches when they are pregnant because they may affect the unborn puppies, other medications may cause the bitch to abort the pups. Always make sure that your vet is aware that your bitch is in whelp, and do not administer any medications yourself unless you are 100% sure they are safe.

**Remember: start to think about care, nutrition and exercise for the pregnant bitch, well before the breeding takes place**





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