

Cattle Pregnancy Diagnosis

For most beef herds in the district the bulls have finished their run with the cows and heifers and as producers you want to know how well they worked. Pregnancy diagnosis (testing) is the way to identify non-pregnant ('empty') cows/heifers as well as :

- Assess the reproductive performance of the herd
- Aid in the genetic improvement of the herd
- Identify infertility which helps to prevent gradual ageing of the herd
- And improve the control, prevention and treatment of reproductive diseases.

There are two methods that veterinarians routinely use to accurately detect pregnancy in cattle – rectal palpation and rectal ultrasonography. Each method has its advantages and disadvantages and both are just as accurate as each other when used at the appropriate stages of pregnancy.

Pregnancy diagnosis requires the provision of good facilities such as a crush with a kick gate in order to prevent injury to the veterinarian and damage to equipment but also to insure accuracy and minimal stress on the cow/heifer.

Rectal palpation involves the identification of signs that the cow/heifer is definitely pregnant or signs that are suggestive of pregnancy. Definitive signs are:

1. A foetus
2. Placentomes – which are where the placenta (bag) surrounding the foetus attach to the uterus
3. The amniotic vesicle – this is the fluid around the embryo
4. Foetal membrane slip – this is the movement between the two layers of the placenta.

These signs can be accurately detected from 8 weeks since the bull left the cows/heifers i.e. the youngest foetus is 8 weeks of age.

Other signs that are suggestive of pregnancy are the tone of the uterus, the amount of fluid in the uterus, the size, location and weight of the uterus and the feel of the arteries supplying the uterus.

Ultrasonography of the foetus involves the use of a rectal probe attached to a portable ultrasound scanner. An ultrasound scanner sends beams of ultrasounds from the probe which then reflect off the structures of the foetus. These reflections are then translated into an image on the screen. Rectal ultrasonography can detect a foetus from just under 4 weeks of age but is most accurate between 5 weeks and 15 weeks. Using ultrasound we can see the fluid around the foetus, the placentomes, the foetus and even the foetal heartbeat.

It should be noted that spontaneous loss of pregnancy (not associated with pregnancy diagnosis) in beef cattle is highest before 3 weeks (age of foetus) but remains a risk up until 8 weeks. Therefore a percentage of cows & heifers pregnancy tested positive before 8 weeks will not deliver a calf. Rough palpation of a foetus up until 10 weeks can also increase pregnancy loss by up to 5%. Pregnancy loss can also be caused by infectious agents such as Pestivirus, Vibrio, Leptospirosis, Akabane, Listeria and Q fever.

The Australian Association of Cattle Veterinarians runs the National Cattle Pregnancy Diagnosis Scheme. This scheme is an accreditation scheme that enables approved veterinarians to use tail tags. In order to gain accreditation a veterinarian needs to pregnancy test at least 2,000 cattle and complete an examination with an approved examiner. This exam involves at least 100 head, the veterinarian must get all correct (pregnant or empty) and also must determine the age of the foetus. Once accredited the veterinarian is then able to use tail tags. The tags commonly used around Glen Innes are the red tags (cow is over 4 months pregnant), blue tags (cow is under 4 months pregnant) or green tags (cow is not detectably pregnant). The main use for tags is for sale of cattle so that premiums can be paid for their pregnancy status.

Your veterinarian will not only be able to provide you with how many cows/heifers are pregnant but also advise you on the likelihood of diseases, improved management practices of the herd, and investigate inefficiencies in the breeding process.