Insemination.


Ultrasound has revolutionized equine breeding management over the last 20 years by providing critical information about ova, embryos, and placentomes, as well as assessing the extra-embryonic membranes. Ultrasound is performed with a transducer coupled to a lubricant and placed against the skin at the area of the ovary to be examined. An appropriate lubricant is preferred to reduce friction and improve visualization. Lubrication is then applied to the examiner’s arm and another over the transducer for protection and to ease cleaning. Water is commonly used as a coupling agent, followed by a non-irritating ultrasound gel. The transducer is then placed on the mare’s abdomen, covered with lubricant, and a tight seal is made to ensure that no air is present in the system. Air is a high-density medium that can affect the quality of the ultrasound image, reducing the clarity of the image. An increment of air can lead to an increase in the noise level returning echoes bounced back by tissues. The intensity and location of reflected echoes of high density may be altered by the presence of air.

There are many different types of ultrasonic scanners available that are tailored to specific uses, but the principles of image production remain the same. The basic unit of an ultrasound system is the transducer, which contains an array of crystals that convert electrical energy into mechanical energy in the form of a high-frequency sound wave. These sound waves travel through the body and reflect off different structures. The reflected sound waves are then converted back into an electrical signal by the transducer. This signal is then sent to the computer, which processes the information and produces an image of the structure being examined.

In the mare, the transducer is then placed on the mare’s abdomen, covered with lubricant, and a tight seal is made to ensure that no air is present in the system. Air is a high-density medium that can affect the quality of the ultrasound image, reducing the clarity of the image. An increment of air can lead to an increase in the noise level returning echoes bounced back by tissues. The intensity and location of reflected echoes of high density may be altered by the presence of air.

In the mare, the transducer is then placed on the mare’s abdomen, covered with lubricant, and a tight seal is made to ensure that no air is present in the system. Air is a high-density medium that can affect the quality of the ultrasound image, reducing the clarity of the image. An increment of air can lead to an increase in the noise level returning echoes bounced back by tissues. The intensity and location of reflected echoes of high density may be altered by the presence of air.