

Frequently Asked Questions about BioPRYN®

Q. What is BioPRYN®?

A. BioPRYN® is a blood pregnancy test for ruminants, and has specific advantages because it delivers fast, accurate, safe and economical pregnancy detection results.

Q. How does BioPRYN® detect pregnancies?

A. BioPRYN® evaluates the blood (more specifically, the serum or plasma) of ruminants for a protein called Pregnancy Specific Protein B (PSPB). PSPB is produced by the placenta, and therefore pregnant animals will have the protein in their blood. This makes the test more accurate than earlier attempts at pregnancy diagnosis that evaluated blood or milk for progesterone or other hormones that can occur in normally cycling animals.

The test uses enzyme-linked immunosorbent assay (ELISA) technology for processing, which contributes to its low cost and fast turn-around.

Q. How early in a pregnancy can cattle, sheep, goats or bison be tested with BioPRYN®?

Cattle

- A. BioPRYN can be applied to cattle of all breeds and can be easily integrated into any reproductive management protocol. BioPRYN is most accurate when applied at:
- a. 28 DPB or greater by AI or last exposure to the bull; and,
 - b. 73 days post calving (DPC) or greater.

For recipient cows of an embryo transfer, blood can be collected at 28 days of embryo age (21 days after transfer of a 7-day old embryo)

Goat and Sheep

- A. 30 days post breeding (DPB) or greater by AI or last exposure to the buck or ram.

Bison

- A. 40 days post breeding (DPB) or greater by AI or last exposure to the bull.

Q. What is the accuracy of BioPRYN®?

Cattle and Bison

- A. BioPRYN® has been shown to have an overall accuracy rate of 97 percent. In fact, the test is 99 percent accurate if the cow is called open, with only 1 percent showing false-open (false negative). Correct open detection is very important because giving prostaglandin to misdiagnosed pregnant cows will cause abortion.

The false-pregnant (false-positive) rate for the test is approximately 5 percent. A portion of this variance is due to higher early embryonic death, and not to test inaccuracy.

In practice, high-producing dairy cows tend to show slightly higher false-positive rates of 7 to 8 percent, especially during periods of extremely hot weather.

Inaccuracies can occur because of mislabeling of samples or cross contamination of one sample with another. A new needle and tube must be used for each animal.

Goat and Sheep

- A. BioPRYN® is greater than 99 percent accurate when the assay identifies animals at least 30 days post-breeding as open with less than 1 percent showing false-open (false negative). Correct open detection is very important because giving prostaglandin to misdiagnosed pregnant cows will cause abortion.

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Q. What are the advantages of using BioPRYN® versus other methods of pregnancy diagnosis?

- A. Producers incur less cost using BioPRYN® compared to rectal palpation by a veterinarian, and less cost than ultrasound. It allows producers to diagnose pregnancy more rapidly after breeding than rectal palpation, with no risk of damaging the fetus. Animals detected as open can then be re-bred more quickly, resulting in more re-breedings during the season, more young born per year, and higher lifetime milk production.

Q. How much does BioPRYN® cost?

- A. Cattle and Bison: \$2.50
A. Goat and Sheep: \$6.50

Q. When are the samples tested?

Samples are tested weekly on Monday and Thursday.

Q. How long does it take to receive the test results?

- A. The test requires 24 hours from laboratory set-up to reporting. Results are phoned, faxed or emailed back to the submitter.

Q. Who manufactures BioPRYN®?

- A. Dr. R. Garth Sasser developed the licensed technology while a researcher and faculty member at the University of Idaho. He developed the BioPRYN® test using technology licensed from the University of Idaho. BioTracking, LLC is the sole manufacturer and distributor of BioPRYN®.

Q. Where can I find more information about BioPRYN®?

- A. To learn more about BioPRYN®, visit the BioTracking website at www.biopryn.com