

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 diagnostic results.

Q. What does the test name stand for?

A. The test's name is a partial acronym for "Pregnant Ruminant Yes/No," and the technology works on all ruminants, including goats, cattle, sheep, bison, deer, elk and moose. A specific test using ELISA technology, which produces fast results, has been developed for use exclusively in goats and sheep.

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). The 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 animals be tested with BioPRYN[®]?

A. Goats and sheep can be tested at 30 days or later, after breeding.

Animals that are detected open can then be immediately returned to aggressive breeding programs by natural means or by using hormones.

Q. What is the accuracy of BioPRYN[®]?

A. BioPRYN[®] has been shown to have an overall accuracy rate of over 95 percent. Animals that are called pregnant and later are found not pregnant (false positive) are likely the result of loss of the embryo and not inaccuracy of the test.

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.

Q. How much does BioPRYN[®] cost?

A. The test itself costs \$8.00 from the laboratory that processes it, plus the cost of a sample tube and needle. Shipping expenses also must be added if the tests are not processed locally.

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

A. Producers incur less cost using BioPRYN[®] compared to the cost of ultrasound.

BioPRYN[®] allows producers to diagnose pregnancy very early with no risk of damaging the fetus. Animals detected open can then be re-bred more quickly, resulting in more re-breedings during the breeding season, more young born per year, and higher lifetime production from each goat or sheep.

The test is more convenient because on-farm personnel can draw and ship blood samples, rather than working around a veterinarian's schedule. This also frees up the veterinarian to concentrate on more complicated medical problems with the farm's management team.

No test is more accurate than BioPRYN[®]. Thus, fewer animals are misdiagnosed and this can amount to a considerable savings in establishing pregnancy and by reducing days open.

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

A. The test requires 48 hours from laboratory set-up to reporting. Samples are run once a week beginning on Wednesday. A report can be made on Friday for samples arriving in the lab before noon on Wednesday. Results are phoned, faxed or e-mailed back to the farm.

Q. How should blood samples be prepared and shipped?

A. Farm personnel need to draw blood samples from the jugular vein, which is an easy-to-learn procedure. Blood samples of at least 2 mL per animal should be collected in individual vacuum tubes and labeled with each animal's identification number. It is important to draw samples using individual, disposable needles, to avoid cross-contamination between animals. Needles and tubes can be obtained from veterinarians or veterinarian supply companies.

Tubes containing blood samples should not be opened and should be packed in a well-padded box to avoid breakage. They do NOT need to be packaged in ice. Samples may stay in transit for several days without compromising the results of the test. Fastest results, however, are achieved when samples are shipped via Federal Express, UPS overnight, DHL, Airborne Express, U.S. postal service overnight, or other overnight carrier method. Less expensive second or third day promise of delivery is reliable for most carriers.

Q. Who manufactures BioPRYN[®]?

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

BioTracking LLC is the sole lab for testing sheep, goat and wild ruminant samples. Other labs are licensed by BioTracking to do cattle samples.

Q. To whom is the test available, and how do I get started?

- A. Thanks to the availability of efficient shipping methods, DHI Cooperative can process samples from livestock producers and veterinarians throughout the United States as well as internationally.

This test is available to any sheep producer, DHI membership is not required. Submission forms and collection supplies are available via the DHI website, www.dhicoop.com, from any DHI representative, or by calling 1-800-DHI-OHIO. Collections supplies are sold by DHI as a convenience to our customers, you are not required to purchase collection supplies from us.