



BioPRYN[®] Pregnancy Detection

Identifying open cows is key to a smooth-running calving season and a productive herd. Finding open cows in a timely manner is more important than ever. That's why Neogen[®] offers fast, easy pregnancy detection.

- BioPRYN is a blood-based pregnancy detection tool for use in cattle reproductive management. The test offers a safe, accurate, and easy way to confirm pregnancy in beef or dairy cattle
- The BioPRYN test measures the concentration of Pregnancy Specific Protein B (PSPB), a protein only produced by the placenta of a growing fetus and present in the blood circulation of the mother cow until after birth of the calf
- The BioPRYN test accurately classifies adult cows as pregnant or open that are at least 28 days post breeding. Heifers are accurately classified as soon as 25 days post breeding. Lactating cows must be 72 days post calving
- The BioPRYN assay kit has been commercially available since 2002 and is a proven leader in blood-based pregnancy testing

Management value of early pregnancy detection:

Early and accurate detection of pregnancy is useful in many ways, from finding open cows to managing comprehensive A.I. programs. Once cows have been identified as open, they can be synchronized and rebred, turned out with a clean-up bull, or identified as chronic problem animal and culled. The longer a cow is open, the longer the calving season will be. A controlled breeding season using BioPRYN can result in a tight calving window of only 90 days or less and will have many advantages:

- Reduced cattle working days for vaccinating and weaning
- Marketing a uniform and consistent calf crop
- Optimized winter feeding program

Pregnancy Detection:

- Finding open cows can be accomplished quickly. Neogen's GeneSeek Operations lab provides next-day turnaround time for test results when samples are received Monday–Thursday
- Using blood-based testing minimizes the risk to the fetus
- The test classifies open cows with 99% accuracy





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Economic benefits of early pregnancy detection:

Cattle producers know there are many benefits from shorter breeding seasons. The Arkansas Beef Improvement Program (ABIP) quantified several improvements in a calving season demo program:

- Average calving season length decreased from 282 to 100 days
- Direct cost per animal unit decreased 32% (\$180 to \$122)
- Herd break-even cost decreased 38% (\$.50 to \$.31 per pound)
- Shortening the breeding season, and thus the calving season, to 90 days can help increase calf weaning weights and calf-crop uniformity.

Samples to submit:

- Collect about 2 cc of **whole blood** or **serum**:
 1. **Whole blood:** use a purple-top EDTA blood tube, which contains an anti-coagulant. Gently rock or invert the tube several times immediately after filling it with blood to allow the anti-coagulant to mix with the blood.
 2. **Serum:** use a red-top plain blood tube or red/gray-top serum separator tube. Leave tubes undisturbed to allow the blood to clot.
- Sending whole-blood samples allows for the same sample to be used for both pregnancy testing and genomic profiling, if desired. Genomic profiling cannot be run on serum
- The pregnancy detection submission form can be found at this web address:
http://genomics.neogen.com/pdf/ag037_bioprynpregnancysubmissionform.pdf
- Number each blood tube in the sequence as it will be listed on the submission form. Then label the blood tubes with the animal ID. Clear identification of samples and consecutive numbering of the tubes helps the lab maintain fast turnaround times
- Fill out the submission form with all necessary information (animal IDs, contact information, payment information). Reports are generally sent out by email.
- Samples collected should be stored in the refrigerator until ready for shipment
- Shipping can be done at room temperature

Ship samples to: Neogen[®] GeneSeek[®] Operations
Attn: Veterinary Diagnostics Lab
4131 N. 48th St.
Lincoln, NE 68504

Ordering sample supplies: Obtain blood collection kits (tubes, needles, needle holders), sample submission forms, or product support by visiting genomics.neogen.com or call 1-877-0443-6489.



Neogen[®] GeneSeek[®] Operations • 4131 N. 48th Street, Lincoln, NE 68504
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