

Tips to Maximize Conception

Select Sires' Jon Herrick shares tips for handling semen to get best AI results.

by Joann Pipkin

A successful breeding season begins long before conception. Making sure equipment is in tip-top shape before the cow is in the chute is the bottom line.

"You can be a great arm technician in the cow, but if you're sloppy with semen handling, it really doesn't matter what you do in the cow because you have [subpar] product before you ever get there," said Jon Herrick, beef specialist with Select Sires.

Speaking in an Angus University session Nov. 6 during the 2016 Angus Convention in Indianapolis, Ind., Herrick said having good-quality, clean equipment is a critical step in helping to maximize conception.

Because semen exposure risk typically occurs at the -160° F frost line in a semen tank, Herrick encouraged Angus producers to make sure all necessary equipment is on hand before removing the straw of semen.

Having a properly calibrated thermometer is key for accurately monitoring water temperature when thawing semen, Herrick said, with incorrect water temperature at thawing being one of the most common errors in semen handling.

Maintaining a water temperature of 94°-98° is crucial when thawing semen in a water bath, and 95° is the optimal temperature.

"That will maximize the number of live semen cells when you place the semen in the cow," he said. Herrick suggested the following steps when breeding a cow by artificial insemination (AI):

1. Identify the cow.
2. Remove the neck plug from the semen tank.
3. Select the canister containing the semen required. Then, use tweezers or fingers to select the desired straw. The advantage to using tweezers is keeping the canister and rack of semen below the frost line, causing less exposure to the semen straw.
4. Follow the 8- to 10-second rule. When



► Having a properly calibrated thermometer is key for accurately monitoring water temperature when thawing semen, said Select Sires Beef Specialist Jon Herrick. Click the photo above to listen to his presentation. You can also access the audio in the convention newsroom at www.angus.media/news/Angus-Convention.

bringing semen into the neck of the tank, identifying the desired straw and placing it in a water bath held at constant temperature for thawing must take place in 8-10 seconds.

5. Transfer semen straw immediately to thaw unit. If using a water bath, the temperature should be 94°-98°. Thaw straw for at least 40 seconds, but not more than 15 minutes.
6. Remove the straw from thaw unit and place it in a paper towel. Pat dry. Remember, water kills sperm cells, so always use a paper towel when handling semen. Keep the straw out of direct sunlight and fluorescent lights.
7. Check code on semen straw and identify correct bull. Give the straw a quick shake if semen is in the tip of the straw.
8. Be sure semen is placed in a warm AI gun. Heat the gun by placing it against the body or in an insulated gun warmer.

Good hygiene goes a long way in helping to ensure conception. Herrick said manure and other filth contaminate an AI gun quickly. Hot steaming water or rubbing alcohol is the best means to clean AI

equipment. An AI gun should not be cleaned with soap or put in a dishwasher.

Thawing and refreezing damages semen cells, Herrick said. He pointed out that temperature of the water bath changes when thawing three to five straws at a time, making it difficult to maintain a constant temperature.

Embryos should be thawed and transferred one at a time due to the toxicity of ethylene glycol, the freezing media used in embryo storage.

Following proper steps and procedures of semen handling can help ensure successful conception, Herrick concluded.

Herrick's presentation was one of the Angus University Workshops sponsored by Merck Animal Health Nov. 6 at the 2016 Angus Convention. For comprehensive coverage of the Angus Convention, including speaker summaries, links to the full presentations, photos, videos and more, visit www.angus.media/news/Angus-Convention. Herrick's PowerPoint and the audio to his presentation are available in the convention newsroom.



Editor's Note: Joann Pipkin is a freelance writer and cattlewoman from Republic, Mo.