



## Bovine semen sexing agent – FEMALE

### INDICATIONS

For increasing the percentage of *heifer* calves in dairy and beef cattle.

### DOSAGE

One unit (0.25 mL or 0.50 mL) of semen per vial.

### NOTICE

This is not a restricted drug. HEIFERPLUS is a non-prescription biopharmaceutical agent. Federal law (US) does not require that this product be used by or on the order of a licensed veterinarian. Please check with local regulations.

### DESCRIPTION

HEIFERPLUS is spermagenic agent for sexing bull semen. Packaged in kit form, each dose is sealed in a vial to maintain potency during storage. The agent is activated by adding semen directly to the HEIFERPLUS vial. The sexed semen is returned to the original straw and inseminated as usual.

### MODE OF ACTION

HEIFERPLUS works by enhancing the fertility of the X-chromosome bearing (female) sperm and slowing the motility of the Y-chromosome bearing (male) sperm. When inseminated, the sperm sort in the reproductive tract of the dam. The result is more ova fertilized by the X-chromosome bearing (female) sperm. The heifer sex ratio is increased by 20-25% and fertility is boosted 5-20%.

### KIT INSTRUCTIONS

- Warm HEIFERPLUS vial to 96-101.5°F (35.6-38.6°C) to prevent cold shock to semen. Thaw semen as usual.
- Cut the straw at a 60° bevel using a good pair of sharp scissors.
- Insert the cut-end of semen straw through the rubber septum into the HEIFERPLUS vial.
- Add semen to vial by grasping both the vial and straw in the palm of the hand and "shaking" downward 3 or 4 times (similar to shaking a glass thermometer). Be certain all semen is in vial.
- Gently mix semen with contents of vial.
- Transfer enriched semen from the vial back into the straw. Do this by grasping vial and straw in an inverted position and "shaking" downward 3-4 times. Be certain all semen is transferred to straw.
- **IMPORTANT:** Incubate the semen in water bath for 15 minutes at 96-101.5°F (35.6-38.5°C). Adjust time according to temperature of bath. See **TABLE 1. Do not exceed 30 minutes incubation.**
- Remove from water bath, dry, and cut the bevel from straw. Load into insemination gun and inseminate as usual.

Note: During incubation, keep vial attached to the straw. Protect semen from exposure to air and water.

### TIMING OF INSEMINATION

- When breeding from observed heat (natural or synchronized): Breed heifers 16 hrs and cows 18 hrs following first standing heat.
- When timed-breeding using OVSYNCH<sup>®</sup>: Breed heifers 18 hrs after the last GnRH injection. Breed cows 24 hrs after last GnRH.
- When breeding super-ovulated heifers and cows: With double inseminations - Breed at 16 hrs and 24 hrs following first standing heat. With single insemination - Breed 20 hrs after first standing heat.
- When timed-breeding using progestins (CIDR/Crestor): Breed heifers 66-72 hrs and cows 68-74 hrs after removal of CIDR/Crestor implant.

**NOTICE: USE OF THIS PRODUCT MAY REQUIRE A DELAY IN THE TIMING OF INSEMINATION. WAIT AT LEAST 16 HRS AFTER ONSET OF STANDING HEAT BEFORE USE OF THIS PRODUCT.**

### STORAGE CONDITIONS

For long-term storage keep in freezer (-4°F or -20°C).

### HOW SUPPLIED

HEIFERPLUS is lyophilized in the following package sizes: 0.25mL and 0.50mL vials.

### WARNINGS

**KEEP OUT OF REACH OF CHILDREN.**

Manufactured by:

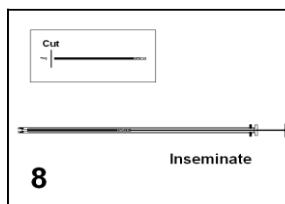
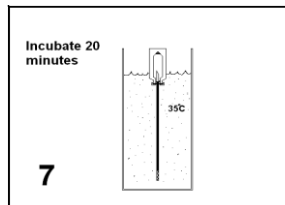
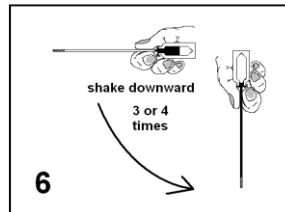
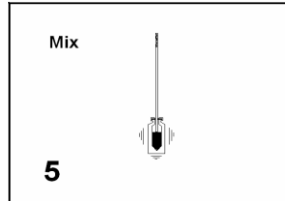
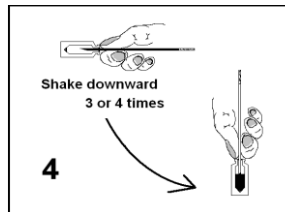
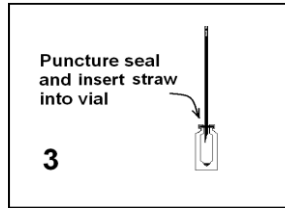
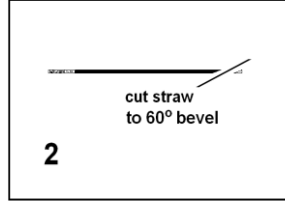
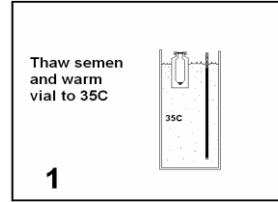
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## KIT INSTRUCTIONS



1. Warm the vial to 96-101.5°F (35.6-38.6°C) using a water bath, tube warmer or incubator for a few minutes (to prevent cold shock). Thaw semen as usual.

2. Remove from water bath. Dry. Cut straw to a 60° bevel with sharp scissors.

3. Puncture seal with 16G needle and insert the cut-end of the straw into the vial.

4. To add semen to the vial, grasp both the vial and straw in the palm of the hand and "shake" downward 3 or 4 times (similar to shaking a glass thermometer). Be certain all semen is in the vial.

5. Gently mix semen with contents of vial.

6. Transfer the enriched semen from the vial back into the straw. Do this by inverting the vial and straw, and "shaking" downward 3-4 times. Be certain all semen is in the straw.

7. Incubate the semen in water bath for 15 minutes at 96-101.5°F (35.6-38.5°C). Adjust incubation times according to the following table.

TABLE 1

°F	°C	TIME (minutes)
101.5	38.6	10
98.6	37	12
96*	35.6	15
90**	32	20

\*Electric thaw bath preset at 96°F (35.6°C).

\*\*Non-electric thaw bath.

8. Remove straw from water bath. If necessary, cut bevel from straw. Load straw into insemination gun. Inseminate as usual.