

# **HEIFERPLUS**<sup>TM</sup>

**MANZAPIÚ**

## Sperm sexing agent

- High fertility
- Low cost
- Use with any semen
- 25% more heifers
- Simple to use

Available also the version **BULLPLUS** to increase 25% more male



## INDICATIONS

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

## DOSAGE

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

## NOTICE

This is not a restricted drug. HEIFERPLUS is a non-prescription biopharmaceutical agent. Federal law does not require that this product be used by or on the order of a licensed veterinarian.

## DESCRIPTION

HEIFERPLUS is for sexing a single unit of semen. It is packaged in kit form for easy on-farm use. Rehydrate by adding semen directly to the HEIFERPLUS vial. After incubating for 20 minutes, inseminate as usual.

## MODE OF ACTION

Gender of the calf is determined by the sex-chromosome complement of the sperm at fertilization. HEIFERPLUS increases motility of only the X-chromosome bearing (female) sperm and slows the motility of the Y-chromosome bearing (male) sperm. When inseminated, the sperm are sorted in the reproductive tract of the dam and more ova are fertilized by the X-chromosome bearing (female) sperm. The percentage of heifers is increased by an average of 20-25%.

## KIT INSTRUCTIONS

- Warm HEIFERPLUS vial to 95-98.6oF (35-37oC) to prevent cold shock to semen. Thaw semen as usual.
- Cut the end of semen straw as usual.
- Puncture the top septum of HEIFERPLUS vial with sterile 14G needle.
- Insert the cut-end of semen straw through the puncture in the HEIFERPLUS vial septum.
- 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.
- 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 again shaking downward 3-4 times. Be certain all semen is transferred to straw.
- **IMPORTANT:** Incubate the enriched semen in water bath for 20 minutes at 95-98.6oF (35-37 °C).
- Load into insemination gun and inseminate as usual.

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

## INSEMINATION

- When breeding from a natural or synchronized heat: Use frequent heat detection (5-12 times/day) when using this product. Inseminate according to AM-PM guidelines (12-14 hr. following first standing heat). Note: With less frequent heat detection (1-2 times/day), breed at 0-6 hr. following first heat.
- When breeding using OVSYNCHR: Breed 12-14 hr. after the last GnRH injection.
- When breeding super-ovulated heifers and cows: Inseminate at 12 hr. and 24 hr. following first standing heat.

## STORAGE CONDITIONS

Store product in refrigerator (5oC) for up to 1 yr. For long-term storage keep in freezer (-20oC). Avoid sunlight.

## WARNINGS

FOR ANIMAL USE ONLY. NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN.

