



# The Point



## Management and environment play the greatest role in conception

By: Julie Ainsworth, Dairy Production Analyst, P.A.S.

**Many factors** influence conception rate. While most often we focus on the cow or service bull, it's important to realize that management and environment factors account for the bulk (96 percent) of the variation in conception rates.

Clearly, the greatest gains to be made in conception are through management and environment factors. Management of first lactation heifers, transition cows and breeding groups are all key factors for improving conception rates. Consider these three management areas as you are looking for ways to improve reproduction.

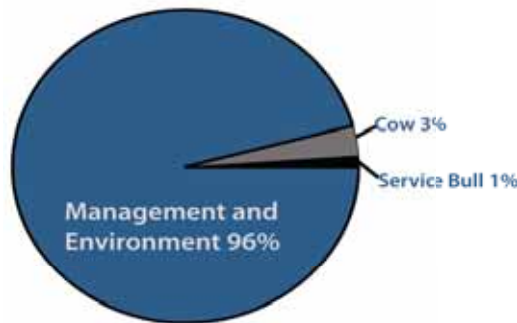
First lactation heifers should be managed in their own group. Heifers won't compete with older cows at the bunk like they need to. As a result dry matter intake suffers, leading to slower growth and difficulties breeding back quickly.

Transition cows need a minimum of 30 inches per cow at the bunk space, or 80 – 85 percent of the headlock capacity. Studies show dry matter intake drops when headlock capacity is over 80-85 percent. Consequently reduction in dry matter intake often leads to metabolic disorders/disease and excessive body condition loss. All of which has a negative affect on reproduction.

Don't overcrowd breeding groups. Overcrowding more than 10 percent is a stressor and while milk production can often survive the effects of overcrowding, reproduction can't. In herds where overcrowding is not an issue we see improved reproductive performance.

Key factors for improving conception rates include fine tuning management and environment of the cows. Take time to review and evaluate these key areas and make sure you are providing the optimal situation for cows to become pregnant. ☆

**Factors that Influence Conception Rate**



## Need more heifer calves?

Getting heifers pregnant is a task in itself, but once you get them pregnant you only have a 48 percent chance it will be the kind of calf you want... a heifer. Now with the availability of gender SELECTed™ semen, you can improve your odds of getting more heifer calves.



It is true the conception rate of gender SELECTed semen isn't as high as conventional semen. However when you do the math even with the lower conception it's still possible to generate more heifer calves with gender SELECTed semen.

Let's say you breed 100 heifers with conventional semen. On average you'll run a 60 percent conception rate and of those that conceive 48 percent will have heifer calves. The result: the 100 heifers bred with conventional semen will result in 29 heifer calves. If you breed 100 heifers with gender SELECTed semen on average you'll obtain a 45 percent conception rate, but of those you get pregnant, 90 percent will have heifer calves. The result: the 100 heifers bred with gender SELECTed semen will result in 40 heifer calves. Heifer calves are valuable to your

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bottom line and using gender SELECTed semen is one way to generate more.

NorthStar's A.I. technician Jason Ossmann is seeing good results with gender SELECTed semen and helping producers generate more heifer calves on their farm. Providing reproduction services in northeast Wisconsin, Ossmann works closely with two herds that are using gender SELECTed semen on a regular basis.

Ossmann has been breeding heifers with gender SELECTed semen at Mueller Dairy Farm in Greenleaf, Wisconsin since March, 2005. At Mueller Dairy, Ossmann is responsible for tail chalking, heat detection and breeding. The farms' breeding protocol includes using gender SELECTed semen on all first and second services for heifers and any subsequent breeding is with conventional semen. Since March of 2005, Ossmann has used 381 units of gender SELECTed semen, and is running a conception rate of 42 percent. To date the farm has had 58 calves born from gender SELECTed semen and 55 (94.8 percent) have been heifers.

Den-Mar Acres, also in Greenleaf, started using gender SELECTed semen in February 2006. Responsible for both heat detection and A.I., Ossmann has used 40 units of gender SELECTed semen for first service on heifers and is currently running a 50 percent conception




rate.

What's the secret to success... "good heat detection and the weather play a role in getting pregnancies," says Ossmann. "Don't use sexed semen (gender SELECTed) on really hot or really cold days." Due to the smaller diameter straw (1/4 - cc) and the fact that semen quality is not as high as conventional semen, Gender SELECTed semen is more susceptible to cold shock.

Since 2001, Select Sires has been working to make gender SELECTed semen a reality. After extensive field trials, research proved the technology can sex-sort sperm with 90 percent accuracy. The long, awaited promise of sexed semen is now reality and gender SELECTed semen offers reliable results you can trust. Visit with your NorthStar professional for a complete list of sires and suggestions on how to use this new technology. ★

## Keys to Success

- Use in well-managed, virgin heifers that have achieved greater than 60 percent of their mature weight by 14 months and are in moderate or better body condition.
- Thaw straws in 95°F water bath for 45 seconds.
- Semen thawing and handling environment should be warm and draft free.
- Warm all semen handling equipment including prior to contacting straws.
- Only people highly experienced in A.I. should use this product.
- Inseminate heifers eight to 12 hours after observed estrus (AM/PM Rule). Once a day A.I. programs are not conducive to optimum results.
- Heifers must be visually observed in heat before insemination.
- Breeding to natural heat is preferred. Synchronization with visual heat detection is also acceptable. Use of timed A.I. is not recommended.



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