



History of sexed semen in AI

In the late 1990s, a team at Colorado State University (CSU), headed by Dr. George Seidel, developed a process for creating sex-sorted cattle semen for freezing and use in AI. Through the CSU Research Foundation they formed a company, called XY Inc., which was later sold to Sexing Technologies based in Texas.

This sex-sorting process is now readily available to sort semen and package it for production of male or female offspring. Originally utilized in dairy cattle production, the past decade has seen an increase in production and use of sexed semen in beef cattle.

"Many of the major U.S. bull studs first produced and marketed sexed semen from dairy bulls," says Carl Rugg, owner of Bovine Elite, LLC.

"A dairy bull, in general, has

very high fertility. This high-quality semen can be more readily processed and sorted for sexed semen than the semen from most beef bulls. Genetics of the bull plays a part in the quality of the semen, along with the controlled environmental factors for dairy breeds. Routinely, if a young dairy sire entering a major AI stud does not have high-quality semen, he very likely will not be kept," says Rugg.

Dairyman started using sexed semen early on, partly because of the high fertility that allowed this, and partly because dairies do a lot more AI breeding than beef producers.

"More than 70 percent of the U.S. dairy cows are bred AI. By contrast, we might have 10 percent of cows in the beef industry bred AI. It was logical for sexed

semen to be used first in the dairy business. Dairies are turning over more generations of high-production females, faster, and needing heifers rather than bull calves," he explains.

"Currently we are seeing placement of beef bulls, particularly Angus, for sexed semen production. Each of the major bull studs have a number of beef bulls that they offer for sexed semen availability. These are bulls with high fertility and high-quality semen that can make it through the sex-sorting process. Not every bull's semen has the quality necessary to be sex-sorted. We now see other breeds such as Simmental, Hereford, and Charolais being offered for sexed semen," says Rugg. There is also a selection of bulls chosen for sexed semen in the club calf business.

"Increased use of sexed semen has been a slow trend primarily due to the cost of production and ultimately the retail sale price, which is often double the price of conventionally-processed semen. The retail price of the sex-sorted semen is even higher for some of the bulls that are in large demand," he says.

Not only is the process expensive, but you only obtain a fraction of the processed and frozen semen that would normally be obtained through the conventional process. In certain situations, however, when a producer wants only replacement heifers from a certain group of the herd's best females, or wants only bull calves from certain cows, sexed semen is a cost-effective option. — **Heather Smith Thomas, WLJ correspondent**