

### **History**

In the 1980s, a breakthrough in semen sexing technology was made by USDA researchers. The patents for this technology were licensed to XY, LLC in Fort Collins, CO, which performed a considerable amount of research during the 1980s to optimize the efficiency of these sorting procedures. Commercialization of sexed semen in the United States was initiated with a 2003 license granted to Sexing Technologies. Since then, Sexing Technologies has signed sexed semen processing agreements with many of the large semen supply companies in the world, making sexed semen a profitable reality for the livestock industry worldwide. In 2007, Sexing Technologies acquired XY, LLC and continues to invest in research and development to further improve the semen sorting process.



#### **Your Source for Sexed Semen**













**SiryX** 



































#### **Plants & Offices**

2004 - Sexing Technologies - Navasota, TX - USA

2005 - Lagoa - Holland Genetics - Sertaozinho - Brazil

2006 - Select Sires - Marysville, OH - USA

2006 - ABS - De Forest, WI - USA

2007 - Holland Genetics - Deventer - Netherlands

2007 - CRI-Genex - Ithaca, NY - USA

2007 - Alta Genetics - Conrich, Alberta - Canada

2008 - Sexing Technologies (TWG) - Fond Du Lac, WI - USA 2011 - Sexing Technologies - Lincoln University, PA - USA

2008 - Accelerated Genetics - Westby, WI - USA

2009 - CRI-Genex - Shawano, WI - USA

2009 - Umotest - Roulans - France

2009 - Semen Italy - Bibbiano - Italy

2009 - Sexing Technologies - Hamilton - New Zealand

2010 - Sexing Technologies - Fullerton, NE - USA

2010 - Sexing Technologies - South Charleston, OH - USA

2011 - Sexing Technologies - Camperdown, Vic - Australia

2011 - Sexing Technologies - Laceyville, PA - USA

2012 - Evolution - Saint Aubin du Cormier, France

2012 - German Genetics Intl - Cloppenburg -Bethen, Germany

Inguran LLC dba Sexing Technologies



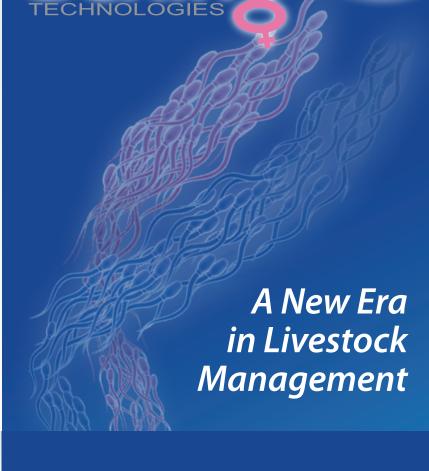
info@sexingtechnologies.com 22575 SH6 South | Navasota, Texas 77868 Office (936) 870-3960 Fax (936) 870-3963

www.sexingtechnologies.com

Sexed Semen is produced using the proprietary technology of XY LLC and is patented as partially represented by pending US patents: 6263745, 6357307, 6372422, 6524860, 6746873, 7195920, 7371517, 7723116, 7771921, and 7820425, with additional patents and patent applications pending in US and foreign markets.

Sexing Technologies is a registered trademark of Inguran LLC. XY is a registered trademark of XY LLC.

© 2014 Inguran LLC dba Sexing Technologies. All rights reserved.



SCIENCE AND TECHNOLOGY **WORKING TO IMPROVE YOUR HERD** 

> Your source for sex sorted semen and embryos.



### **How is the Sperm Sorted?**

Cattle sperm bearing X chromosomes (female) contain about 3.8% more genetic material than those carrying Y chromosomes. Sophisticated machines running our proprietary software are able to identify X and Y sperm based on their differing DNA content and separate them by gender.

Bull semen that meets our high quality standards is combined with a specially formulated media that both nourishes and stains the sperm. The sperm remain in this media throughout the sorting process. The more genetic material a sperm carries, the more stain it absorbs. The sperm then flow single file past a laser and the computer measures the resulting fluorescence, which identifies the sperm as having either male or female DNA. Slight electrical charges send the sperm streaming into the appropriate containers.

# **The Sorting Equipment**

Sexing Technologies is proud to introduce the latest in flow cytometry equipment for sperm sorting.

The Genesis III sorts semen more quickly, accurately and with 5%-7% fewer sperm cells lost during processing than any other sorting machine. The Genesis III has three times the production capacity of the earlier generation machines and has the same footprint. The software is much more automated, making it easier for one technician to operate two or three sorters to produce the same number of straws as four technicians could using the old equipment.

A smaller, portable sorter brings the lab to the farm. It is ideal for sorting deer and horse semen on location with the same accuracy as the Genesis III.



# Sexed Semen Technology for the 21st Century

SexedUltra<sup>™</sup> semen products represent a new era in sexed semen technology that deliver conception rates up to 95% of those achieved through use of conventional semen. No other sexed semen in the world can deliver a better conception rate than SexedUltra<sup>™</sup> semen products.

The SexedUltra™ process combines improved biotechnology with cutting edge machines and advanced computer software to efficiently sort semen while minimizing damage to sperm cells. A specially formulated media keeps sperm cells healthy and vigorous as they flow through our newly developed Genesis III digital sorting machines. The Genesis III sorts semen more quickly, accurately and with less loss of sperm cells than any other sorting machine.

Before the SexedUltra™ process, sexed semen typically achieved conception rates that were 15 % to 25 % lower than non-sexed semen. Years of research, development and six field trials using 40,000 head of cattle in the U.S., Ireland, France and New Zealand showed that SexedUltra™ semen products consistently achieved conception rates up to 95% of those achieved using conventional semen. Actual results will depend on an individual's unique breed/animals and herd management program.

Historically, sexed semen's lower conception rates and higher cost limited its use to heifers. With conception rates almost the same as conventional semen, SexedUltra™ semen products make financial sense for use in lactating cows as well.

The higher conception rates of SexedUltra™ semen products are more significant in light of a recent study co-authored by a Harvard researcher that showed heifers giving birth to females produce significantly more milk than those giving birth to males. A heifer that delivers two females sequentially produces, on average, up to 445 kg more milk over the course of the two lactations. The increased milk production more than pays for the cost of Al using SexedUltra™ semen products.

# What results can be expected?

Each straw of our sexed semen contains about 90 percent DNA for the gender you choose. This means you have about a 90 percent chance of getting a calf of the chosen gender from each successful pregnancy achieved through Al. Conception rates for sexed semen is traditionally lower than conventional semen. However, researchers at Sexing Technologies have developed new technology that significantly increases the conception rates of sexed semen Al through the SexedUltra™ process.

#### How Do I Know If I Have True SexedUltra™ Semen Products?

Authentic SexedUltra™ semen products are available exclusively from Sexing Technologies and distributors authorized to use the SexedUltra™ name.



Don't settle for less than SexedUltra™ semen products.