

THE POWER OF CONFIDENT SELECTION



INTRODUCING

## Igenity<sup>®</sup> *Santa Gertrudis*

NOW EXCLUSIVELY FROM  
SANTA GERTRUDIS BREEDERS INTERNATIONAL

### Profitable Selection Made Simple – *Put More Dollars in Your Pocket*

- **Confidently select heifers** before you invest in their development.
- Make **faster gains** in your herd improvement.
- Market your herd quality with a **competitive edge**.
- **Develop** STAR 5 herds with DNA-verified selection and matings.
- **Verify** multi-sire parents in your bull battery.



# What is Igenity<sup>®</sup> *Santa Gertrudis*?

Igenity *Santa Gertrudis* is a DNA-verified genetic selection tool designed to benefit the commercial Santa Gertrudis breeder, STAR 5 breeder or commercial producer using Santa Gertrudis bulls or Santa Gertrudis-influenced females.

Using the large, reliable SGBI database with more than 30 years of records and 9,000 genotypes, SGBI worked with Neogen GeneSeek<sup>®</sup> to develop genetic profiles specific to Santa Gertrudis and Santa Gertrudis-influenced cattle. These profiles – which are expressed as easy-to-understand 1-to-10 values for a variety of economically important traits – can be used by commercial and STAR 5 producers to make reliable selection and breeding decisions.

In the past, these producers could only rely on individual data or visual evaluation to make selection and breeding decisions. No more. Igenity *Santa Gertrudis* brings cutting-edge genomic technology to the commercial breeder, elevating your ability to improve your herd faster, more reliably and with the strategic intent formerly only available to purebred breeders. Igenity *Santa Gertrudis* is genetic testing for the grassroots producers for their own benefit.



## Select, Manage and Market Your Cattle Using Igenity *Santa Gertrudis*

- Pick the best replacement heifers for your future.
- Verify your top-performing bulls via parentage testing.
- Aim for quality calves with strong gain and carcass profiles.

## Predict Maternal, Performance and Carcass Traits

- Easy-to-read 1-to-10 scoring for heifer traits.
- Scores based on SGBI EPD categories; same standards for females and sires.
- Guide genetic improvement goals for climate and market.

## Indexes for Selection Decisions

- Designed for multi-trait selection.
- Pinpoint herd strengths for growth and quality.
- Use reports to market or retain ownership of feeder calves.

## TAKE THE NEXT STEP

Use Igenity technology to take your operation to the next level. Evaluating your heifers will enable you to keep the best for your future. You can use this information to manage your operation, reducing heifer development costs while increasing revenue. Your herd's overall scores from Igenity *Santa Gertrudis* will also help you identify strengths and areas to improve before you go shopping for new bulls. More informed genetic-selection decisions will result in an operation that is predictable, productive and profitable.

# Igenity<sup>®</sup> *Santa Gertrudis* Q&A

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## ***Who should use Igenity Santa Gertrudis?***

Any STAR 5 breeder and/or any cattleman producing, selecting and breeding their own Santa Gertrudis-influenced replacements will benefit from using Igenity *Santa Gertrudis*. To use Igenity *Santa Gertrudis*, the cattle being profiled must be at least 50% Santa Gertrudis.

## ***How does Igenity Santa Gertrudis work?***

It's a simple process, actually. You send in tissue samples from animals that you want DNA tested. Geneseek tests the samples under the proprietary Igenity *Santa Gertrudis* genetic profile. You receive a profile report from Geneseek that gives information on how those animals are expected to perform in several economically important traits.

## ***How do I use the Igenity Santa Gertrudis Report?***

The information that you will receive on the animals tested provides a wealth of information – all of which allows you to make more informed and reliable selection and breeding decisions.

For instance, if you want more weaning growth in your herd, you may want to select replacement heifers that have high marks for weaning growth. If you want more calving ease in your herd, you may want to select replacement heifers who have high marks for calving ease. With 10 traits and three indexes being reported in Igenity *Santa Gertrudis*, there are many selection options.

## ***Why will Igenity Santa Gertrudis benefit me more than visual appraisal of my cattle?***

Visual appraisal only goes so far. It limits you to what you see in that animal on that particular day. Being able to “look under the hood” of a potential replacement female when you are selecting her allows you to know what she is capable of as a productive female, rather than what she looks like she *may* be able to contribute. It will save time and money spent on her while she proves her worth or proves her loss. Wouldn't you rather know what she is capable of at 10 months of age, rather than after she's given you two cull calves in five years?

## ***I'm a STAR 5 breeder – what will Igenity Santa Gertrudis do for me?***

As a STAR 5 breeder, you know you have superior cattle because they are Santa Gertrudis influenced. Igenity *Santa Gertrudis* allows you to profile your cattle and have the data to prove their genetic potential, in addition to making informed selection and breeding decisions.

## ***What else can Igenity Santa Gertrudis do for me?***

If you are a commercial producer using planned multiple sire breeding herds, Igenity *Santa Gertrudis* will allow you to group females in breeding herds that have similar genetic profiles and breed them to bulls that complement their genetic profiles, giving you a calf crop that has the genetic potential for performance in traits you value.

For instance, if you have 50 females that you are going to have in a breeding herd and they all have profiles that excel in milk but you are in a low-rain, limited-forage area, you may choose to breed them to bulls that have moderate milk EPDs so that the female calves resulting from this breeding herd won't have more milk than your environment can support. On the other hand, if you live in a high-rain, high-forage area, you may want to breed these females to bulls that will maintain or increase the milk production in the female calves born from this breeding herd. In either case, Igenity *Santa Gertrudis* allows you to make informed breeding decisions, not just a “best guess.”

## ***What about multi-sire parentage verification? Will Igenity Santa Gertrudis help with that?***

Igenity *Santa Gertrudis* provides “free” SeekSire™ multi-sire parentage verification for profiled calves. SeekSire is a unique test that uses a globally recognized set of USDA, ISAG, *Bos taurus* and *Bos indicus* gene markers. When you verify the parentage of your best heifer or steer calves, you also are identifying the ideal bulls for your future cow herd.

# What is in the Igenity *Santa Gertrudis* Profile?\*

<b>TRAIT</b>	<b>DESCRIPTION</b>	<b>IMPACT</b>
<b>BIRTH WEIGHT</b>	Variation in birth weight that a heifer or bull will pass along to its offspring.	Most calving difficulty is caused by heavy calves at birth. Heavier calves also have more growth potential. The higher the number, the higher the birth weight.
<b>WEANING WEIGHT</b>	Difference in adjusted 205-day weight.	The higher the number, the greater the weaning weight.
<b>YEARLING WEIGHT</b>	Difference in adjusted 365-day weight.	The higher the number, the greater the yearling weight.
<b>MILK</b>	Pounds of calf weaning weight due to dam's milk production.	Optimize "milk" to the forage environment. The higher the number, the greater the milk production.
<b>SCROTAL CIRCUMFERENCE</b>	An indicator of bull fertility that is also related to daughters' age at puberty.	Larger circumference is a proxy for puberty at a younger age. A higher score indicates larger scrotal circumference.
<b>HOT CARCASS WEIGHT</b>	Unchilled beef carcass weight. (Dressing % x live weight.)	The higher the HCW, the greater the pounds of dressed beef produced.
<b>MARBLING</b>	Intramuscular fat – related to USDA marbling score among cattle at a similar end point.	The higher the marbling, the higher the USDA Quality Grade potential.
<b>FAT THICKNESS</b>	Backfat as measured on carcass. Scored as depth of fat in inches over the ribeye muscle at the 12th rib.	Higher fat thickness scores equate to lower lean yield.
<b>RIBEYE AREA</b>	Ribeye area as measured on carcass. REA estimates muscling in a beef carcass in square inches of the ribeye at the 12th rib.	Larger-REA progeny have more muscle and higher percentage of retail product.
<b>TENDERNESS</b>	Genetic potential for beef tenderness as measured by Warner-Bratzler Shear Force.	A higher score indicates greater tenderness.
<b>GROWTH INDEX</b>	Weaning weight and yearling weight	Higher score indicates more growth.
<b>CARCASS INDEX</b>	Carcass weight, ribeye area, marbling, backfat, tenderness. Emphasis on quality parameters.	Higher score indicates more favorable carcass.
<b>MATERNAL INDEX</b>	Birth weight, weaning weight, milk, yearling weight, scrotal circumference.	Higher score indicates more favorable maternal productivity.
<b>SEEKSIRE™ PARENTAGE</b>	Igenity Santa Gertrudis uses globally recognized SNP markers for <i>Bos taurus</i> and <i>Bos indicus</i> parentage validation.	Discover better-performing sires, make breeding decisions, identify bull-buying needs and pinpoint bulls causing calving problems.



*\*The profile describes results of the Neogen GeneSeek analysis of biological materials provided by producer/owner and described herein. Santa Gertrudis Breeders International warrants only that it and its affiliates have applied its best commercial efforts to determine the presence and identification of specific bovine gene alleles in DNA from the sample(s) provided from the producer/owner. No other warranty of any kind, whether express or implied, is provided. Results of analysis are predicated on the assumption that each sample was obtained from a single bovine and was correctly identified. Results of analysis are reported herein in association with the sample and animal designations provided by the producer/owner.*

# How to Test with Igenity *Santa Gertrudis*

## Step 1 – Tissue (DNA) Sampling

You take tissue samples of the animals you want tested. Today, the industry is turning to a new tool called the Allflex® Tissue Sampling Unit (TSU) that makes collection fast, clean and easy. TSUs are recommended. Hair follicle and blood cards are also accepted. Hair may require an added processing charge.

Be sure that DNA and sample IDs are a perfect match when collecting your samples and ordering your tests.

## Step 2 – Ordering Igenity *Santa Gertrudis*

After you have collected tissue samples from animals to be profiled, order your tests online at the SGBI website, [www.santagertrudis.com](http://www.santagertrudis.com). For your convenience, a tear-out order form is included with this brochure.

## Step 3 – Shipping Samples

Send your tissue samples and payment to: Igenity, SGBI, P.O. Box 1257, Kingsville, TX 78364. Make a copy of your order form for your records.

SGBI will send your order to Neogen GeneSeek Operations in Lincoln, Neb., for processing. After arrival at Neogen, samples will take approximately 21 business days for processing. Results will be returned to SGBI, which will review the report and send it to you.



Tissue Sampling Unit (TSU) Applicator in use on calf



Tissue Sampling Unit (TSU) Applicator



Tissue Sampling Unit (TSU) Box Set

### **SGBI GROWTH INDEX**      **RELATIVE WGT**

Weaning Weight	50%
Yearling Weight	50%

### **SGBI CARCASS INDEX**      **RELATIVE WGT**

Carcass Weight	17%
Ribeye Area	15%
Marbling	15%
Backfat	11%
Tenderness	26%

### **SGBI MATERNAL INDEX**      **RELATIVE WGT**

Birth Weight	-10%
Weaning Weight	50%
Milk	10%
Yearling Weight	-25%
Scrotal Circumference	5%



Easy to store and archive



# Reap the Benefits of Profitable Selection

## How to Take Advantage of Multi-Sire Parentage Verification

Multi-sire parentage verification is one of the most overlooked profit strategies in commercial beef production. This tool is powerful when all candidate sires are DNA-typed for comparison.

Bull battery DNA is needed for comparison to the DNA of calves that you are profiling with Igenity *Santa Gertrudis*. Bull DNA can come from two sources:

- For SGBI-registered bulls, their DNA may already be on file. Provide these registration numbers on your order form.
- For sires not registered with SGBI, take DNA samples on these bulls and profile them with Igenity *Santa Gertrudis*. This will put their DNA into the system for multi-sire parentage verification of your calf crop.

## Identifying Profitable, Predictable, Productive Sires

Take non-productive bulls off your payroll with multi-sire parentage verification. By knowing which bulls are siring the most profitable calves, you can manage your bull battery better and reach your breeding objectives faster. Don't let non-productive bulls take money out of your pocket. SeekSire parentage comes with your Igenity *Santa Gertrudis* profile and will help you know which bulls are performing, productive and profitable.



## Selecting Replacement Females

Profit starts with a live calf. Developing heifers that will grow into functional, efficient females that bring a healthy and heavy calf to the weaning pen each year is key. Identify females that reach puberty and breed early, offer calving ease and provide superb weaned-calf performance. Invest your valuable resources in development of heifers that get the job done, producing calves that are profitable for you and the beef industry.

## Selecting for Marketing Options

Igenity *Santa Gertrudis* provides the information you need to market your operation's calf crop for the most money possible.

- **Selling by the pound at weaning?**  
*The higher the Igenity weaning weight number, the greater the weaning weight your heifers will pass on to offspring.*
- **Retaining ownership?**  
*Using information from SGBI's large carcass traits dataset, heifer calves can be profiled for retained ownership or grid-marketing programs.*
- **Developing a consumer direct market?**  
*Identify animals with consumer-pleasing tenderness.*
- **Taking advantage of the replacement female market?**  
*Target females that optimize milk production, reach puberty quickly and bring a profitable calf to the pen.*



# A MARKETPLACE INNOVATOR



## SANTA GERTRUDIS BREEDERS INTERNATIONAL

In 2013, SGBI was the first American (*Bos indicus*-influenced) breed association to provide genomically enhanced EPDs. DNA data makes a GE-EPD more accurate and predictable than pedigree and performance predictions alone. SGBI was also the first beef breed association to use the powerful new single-step method of GE-EPDs.

The association is a leader in its field and has been collecting animal phenotype and scan data for three decades. SGBI's genetic evaluation ensures cattle producers can make sound comparisons, identifying animals that will perform at the highest level in the most challenging environmental conditions. This spirit of innovation – along with decades of solid data and partnerships with world-leading animal scientists, geneticists and service providers – is the foundation for Igenity *Santa Gertrudis*.

***For information about Igenity Santa Gertrudis  
or other SGBI programs, contact:***

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