

## FOR IMMEDIATE RELEASE

CONTACT: Nicole Bechtel GeneSeek Public Relations (503) 756-1538 geneseekpr@gmail.com

## GeneSeek<sup>®</sup> Announces Next Generation of DNA Technology – GeneSeek<sup>®</sup> Genomic Profiler Bovine HD<sup>™</sup> Cattle industry's most powerful and comprehensive DNA profile

**TAMPA, Fla. – February 7, 2013 –** GeneSeek<sup>®</sup>, a Neogen Corporation Company, announces the immediate availability of the next generation of DNA technology: the GeneSeek Genomic Profiler Bovine  $HD^{TM}$  (GGP-HD), the most powerful and comprehensive profile available for cattle producers today.

The custom, high-density GGP-HD utilizes the Illumina Infinium<sup>®</sup> chemistry and features nearly 80,000 SNPs for highly-accurate genomic-enhanced expected progeny differences (GE-EPDs), genome-wide selection, comparative genetics studies and higher density imputation.

"GeneSeek has harnessed DNA technology and improved upon the Illumina Bovine SNP 50 base content to develop a more powerful, cost-effective and customer-friendly product," says Dr. Stewart Bauck, director of beef genomics for GeneSeek. "From a single test sample, the GGP-HD provides cattle producers access to a faster and more accurate genetic evaluation of their cattle at a significant cost savings."

The availability of the GGP-HD is due to the collaboration between the U.S. Department of Agriculture, Iowa State University and GeneSeek.

"The GeneSeek Genomic Profiler Bovine HD<sup>™</sup> combines many of the features of the Illumina Bovine SNP 50 panel, but is enhanced with high-density content and will be more informative than a 50K product, at a much more affordable price than the Illumina 770k HD panel," explains Dr. Dorian Garrick, Iowa State University Lush Chair in animal breeding and genetics and National Beef Cattle Evaluation Consortium (NBCEC) executive director. "The content of the GGP-HD is complementary to the GGP-LD, and the combined use of these two panels will improve the cost-effectiveness of genomic prediction and genome-wide association studies, both for industry applications and for research."

Significant work in the development of the GGP-HD concentrated on providing beef breed associations with the most appropriate genetic markers for GE-EPDs, plus comprehensive parentage, disease and trait relevant SNPs – all for an affordable price.

"Key elements that are important to individual breeds have been factored into the product," says Dr. Bauck. "For example, the GGP-HD features hundreds of SNPs that enable the conversion from a SNP profile to microsatellite data for parentage determination from historic samples. The GGP-HD content has been specifically chosen so that it will be applicable to both purebred and crossbred cattle, making it an attractive option for all breed associations and their members, including composite cattle such as Angus cross."

The increase in accuracy of the EPD of a young sire from incorporating the GGP-HD is the equivalent to adding at least six progeny to a yearling bull for a moderately heritable trait such as marbling, explains Dr. Bauck. "Seedstock producers no longer have to wait until a bull is three years old before seeing a return on their investment. The GGP-HD allows producers to predict the true genetic potential of their bulls earlier and with more confidence to make faster genetic progress."

Through the GeneSeek Genomic Profiler Bovine HD<sup>™</sup>, producers can receive analyses on the most comprehensive disease and trait markers:

- Anhidrotic Ectodermal Dysplasia (EDA-R244X)
- Arachnomelia-SM
- Arthrogryposis (Curly Calf, AM)
- B-mannosidosis
- Bovine Blood Coagulation Factor XIII Deficiency (F13)
- Brahman-Dwarfism
- Calpain 316
- Calpain 4751
- Calpain 530
- Chediak-Higashi syndrome (CHS)
- Chondrodysplasia-BD1
- Chondrodysplasia-BD2
- Color Dilutor
- Congenital muscular dystonia (CMD1)
- Congenital muscular dystonia (CMD2)
- Congenital myasthenic syndrome (CMS)
- Contractural Arachnodactyly (Fawn Calf)
- Crooked Tail Syndrome-BB
- Dun Color
- Erythrocyte Membrane Protein Band III
- Glycogen Storage Disease-Myophosphorylase
- Homozygous Black Coat Color

- Hypotrichosis KRT71
- Hypotrichosis PMel17 (rat tail)
- Icthyosis Fetalis
- Idiopathic Epilepsy
- Igenity Profile
- Leptin several loci
- Mannosidosis
- Maple Syrup Urine Disease (MSUD)
- MFN2-Degenerative Axonopathy
- Mulefoot
- Neuropathic Hydrocephalus (NH)
- Osteopetrosis (OS)
- Horned/Poll
- Pompes 1057 BR
- Pompes 1783 SH
- Pompes 2454 SH
- Protoporphyria
- Pseudomytonia
- Pulmonary Hypoplasia with Anasarca (PHA Dexter)
- Pulmonary Hypoplasia with Anasarca (PHA Shorthorn)
- Stearoyl-CoA Desaturase (SCD1)
- TH-outcast
- Tibial Hemimelia (TH)

For more information about the GeneSeek Genomic Profiler Bovine HD<sup>™</sup>, call (877) 443-6489 or visit www.neogen.com/GeneSeek.

## **About Neogen Corporation**

Neogen Corporation develops and markets products dedicated to food and animal safety. The company's Food Safety Division markets dehydrated culture media, and diagnostic test kits to detect foodborne bacteria, natural toxins, food allergens, drug residues, plant diseases and sanitation concerns. Neogen's Animal Safety Division is a leader in the development of animal genomics, along with the manufacturing and distribution of a variety of animal healthcare products, including diagnostics, pharmaceuticals, veterinary instruments, wound care and disinfectants. For more information, please visit www.neogen.com.

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