





75

BENEFITS

ABS neo user have the main benefit of faster and efficient genetic gain.

Helping the farmers to grow from within, replacing the non-economical animals

Bringing cutting edge technology at affordable price Accelerating intensity of selection

Achieving higher herd conception rate



Ensuring the use of ABS's best and modern genetics from elite dams and top ABS bulls



Benefitting
with heat
synchronisation,
without the need
of extra animal
handling



Increasing the number of pregnant females complementing productivity

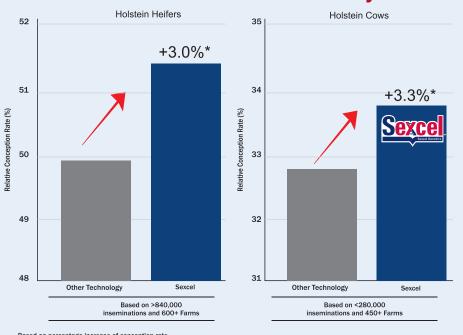


Sexcel is ABS Global's genetic product. Sexcel is created using the most advanced laser-ablation semen sexing technology available in any market in the world. Using recent advances in lasers and fluidics, the technology delivers sexed bovine genetics with the fertility and efficiency needed by the market today.

Sexcel provides producers with more higher genetic merit female calves. Using Sexcel, customers have the power to decide, with as much precision as biology and technology currently allows.



Sexcel wins on fertility.





Based on percentage increase of conception rate











1938 Bovine artificial insemination begins using fresh, quickly delivered semen. Small planes air-dropped parachutes of semen to a marker on the ground where the technician was waiting.

1941 Rock Prentice of Barrington, Illinois forms the American Dairy Guernsey Associates (ADGA) of Northern Illinois, the precursor to today's ABS Global. Three Guernsey sires form the core of an organization that would become the first privately owned bull stud in the USA.

1945 Holstein sires, the most popular dairy breed sold globally today, join the ABS lineup and quickly make a name for themselves.

1945 ADGA of Northern Illinois changes its name to the American Scientific Breeding Institute to reflect a greater number of Holsteins than Guernseys.

1946 The UK Ministry of Agriculture builds a stud in Ruthin, England, which would become another ABS facility.

1954 Our research team adapts photographic equipment to track live sperm cells from each semen collection post-thaw, a process that would remain secret until published 19 years later in 1973.

1956 Dr. Basile Luyet joins the organization. This Catholic priest and prominent cryobiologist perfects a process for freezing and storing semen.

1956 Our researchers collaborate with the Linde Corporation to introduce the industry's first container for transporting frozen semen using liquid nitrogen. Funded by the organization at a cost of \$770,000, the container establishes us as the first organization in the USA to rely 100% on liquid nitrogen-refrigerated frozen semen, with Peru becoming the first country to receive frozen semen outside of the USA.

1965 DeForest, Wisconsin, USA becomes ABS headquarters.

1967 In his later years, Rock Prentice considers several buyers for the company, eventually choosing W.R. Grace & Company.

1968 ABS introduces the first computerized mating program, initially called Genetic Mating Service (GMS), which has made 78 million matings since its inception.

1971 ABS opens for business in France.

1972 St. Jacobs Animal Breeding Corporation builds a bull housing facility, which would later become affiliated with ABS, in Elmira, Ontario, Canada.

1938 1953 1956 1960 1968 1975 1980 1997

1947 A new year brings a new breed, as Jersey sires join the company lineup.

1947 We move from Illinois to Madison and change our name to Wisconsin Scientific Breeding Institute (WSBI).

1948 Rock Prentice, together with Dr. E.L. Willet, establishes the American Foundation of the Study of Genetics, which would create the first embryo transfer calf a few years later using a now-familiar process known today as In-Vitro Fertilization (IVF).

1950 The company breaks into the beef market when it adds Angus sires to the lineup.

1953 The first semen ampule to hold frozen semen is created. Made of glass, the ampule holds 1.2 cc of semen.

1953 The world meets "Frosty", a healthy heifer and the first North American calf born from frozen semen artificial insemination. Thirty years later, history would be made again when the same semen successfully conceives another Al calf. This spoke to the limitless shelf life of frozen semen.

1956 Thanks to our new transport container, drivers can now deliver frozen semen via the first truck route in the Midwest.

1958 Our name is officially changed to American Breeders Service (ABS).

1960 ABS creates linear genetic evaluation systems that would later be adopted by the U.S. Holstein Association.

1960 Rock Prentice plans a young sire program to progeny test sires in a truly random fashion. He has trouble finding accurate, accessible production records. The Department of Agriculture in Beltsville, Maryland has the records, but they lack funding to move forward. Thanks to a generous donation from Rock Prentice, daughter records by bull and breed are published in the first Al sire summary.

1963 ABS geneticist, Dr. Robert E. Walton, introduces the Estimated Daughter Superiority (EDS) measurement. EDS determines the value of bulls old enough to have milking daughters, which lays the foundation for the genetics evaluations used everywhere today. Dr. Walton would go on to become president of ABS.

1975 Volume 1, No. 1 of the Genetic Trait Summary (GTS) is published in the USA. This first-ofits-kind dataset would become a valuable asset for mating cows with the GMS program.

1978 ABS invents and introduces a monitor ampule placed with stored semen, improving quality control by ensuring semen is stored at the proper temperature.

1980 Our patented, proprietary wind tunnel semen freezing system freezes straws in the same package the customer receives.

1980 Our Reproductive Management System (RMS) manages herd reproduction by providing heat detection, artificial insemination breeding, synchronization and data management services from professional technicians.

1982 Glass ampules are converted to a clear 0.5 cc straw and ABS would begin offering 0.5 cc and 0.25 cc straws globally.



Increasing human population results into increased food supply. As we all know, dairy is essential part of human life, culture, nutrition and diet. Today, dairy producers need to gain more from their herds, more effectively and efficiently than ever before. We are helping dairy farmers to meet their needs by developing and delivering best genetics which helps to yield more productive female dairy animals to produce milk to nourish the world.

Dr. Dinesh Rawat General Manager Genus Breeding India Pvt Ltd.













1993 Ardshiel, Inc. acquires the company and changes its name to ABS Global.

1994 ABS Global opens a branch in Mexico.

1996 Our partnership with Circle A Ranch and the Angus Sire Alliance makes ABS Global the exclusive marketing agent for the most profitable beef bulls.

1996 ABS Global enters into a joint venture with Incorporated Peoplan Bradesco, a Brazilian company that imports and distributes insemination products, adopting their stud as our own. The joint venture becomes known as ABS Pecplan.

1997 ABS Global announces the arrival of "Gene", the world's first cloned bovine calf. Even though Gene is in the womb at the same time as Dolly the Sheep, the world's first cloned animal. Dolly is born first due to the shorter gestation period for sheep.

1998 ABS Global introduces Valiant®, a line of teat dip named after the influential ABS sire.

2007 The company creates Fertility Plus, a semen fertility product that increases conception rate.

2007 ABS Global purchases land in Dekorra, Wisconsin, USA, located just north of DeForest, where it builds a second headquarters facility with European-approved collection barns, isolation barn, and processing lab, as well as a state-of-the-art observation deck, arrival facilities, the Vern Meier Historical Barn and a number of other ongoing projects.

2008 ABS Global begins genomic testing, analyzing DNA to estimate future performance more reliably and at an earlier age. Today, all sires that come into the ABS program are genomic-tested.

2009 ABS Global makes history with the only stud to have nine "millionaire" sires, each of which has produced and sold more than one million units of semen.

2011 Collections start in the Whenby, England facility.

2015 ABS Global develops TransitionRight™, a genetic solution to help prevent the multiple, postcalving metabolic disorders (Mastitis, Metritis, Ketosis) that can occur during transition, the most crucial period in a cow's life.

2015 ABS Global acquires In-Vitro Brazil (IVB), the world leader in commercial bovine In-Vitro Fertilization (IVF).

2015 GPLAN, a mating program for Girolando bulls, is released in Brazil.

2015 Y SYNC, an app that facilitates heat cycle synchronization in herds is launched in Brazil. The software is also used to monitor and collect information for the Fixed Time AI (FTAI) Beef Program.

2012 2015 2016 2017 2020 2023 2006 2009

1999 Genus plc, a publicly traded company based out of the UK, purchases ABS Global.

2000 Powerstart™ silage additive enters the UK market, finding tremendous success.

2002 Genus plc buys ABS Australia followed a few years later by the purchase of Riverina Artificial Breeders (RAB), the second largest semen production and progeny testing center in Australia.

2005 Genus plc purchases PIC, the largest porcine genetics company in the world. PIC is short for Pig Improvement Company.

2005 The power of three is a success when ABS China, ABS Argentina, and ABS Russia are founded.

2005 Computer Assisted Sperm Analysis (CASA) replaces the photographic tracking process for post-thaw semen checks.

2006 ABS Global introduces the ABS Sexation product line globally after a successful introduction in Brazil.

2006 ABS Global begins business in Germany.

2011 As part of the new Dairy InFocus[™] program, cows with a lower genetic ranking are bred to beef and the resulting calves are sold at a premium while top-performing cows are used to create dairy replace ment heifers. Today, InFocus is recognized as the leading source for premium dairy beef feeder cattle.

ABS India is founded.

2012 ABS Global becomes the first company to use a proprietary database. Real World Data® (RWD) contains millions of cow records from herds around the world.

2012 Using RWD, the company launches Sire Fertility, an index to measure a sire's semen fertility.

2012 Using Grow Safe technology, a partnership between ABS Pecplan and Rancho da Matinha creates IR \$ M, an economic feed efficiency index for Nelore cattle.

2012 ABS Pecplan achieves success with its introduction of ABS Monitor software for monitoring dairy herds.

2014 The Global Production System (GPS) computerizes the entire production process. From collection through processing and storage, bar codes are used to track the semen of studs around the world.

2014 Our Net Profit Genetics™ program helps create more efficient, low-maintenance and sustainable herds.

2015 ABS Global launches ABS NEO, an embryo program powered by exclusive IVB Transfer™ technology.

2015 The Ruthin Gallery, a viewing room, meeting room and education center opens in the UK.

2015 ABS Global produces the first commercial units from our proprietary genomic bulls, each of which is born from our elite female nucleus herd.

2016 ABS India inaugurates its new State-of-the-art Dairy genetics facility - BRAHMA

2016 ABS Global acquires St. Jacobs ABC, an elite dairy genetics supplier that has been providing ABS with prestigious genetics since 1990.

2016 The company celebrates 75 exciting years of genetic progress.

ABS India imports live Holstein bulls from USA.

2017 ABS Global launches Sexce



2020 ABS India launches Neo - IVF Sexed Pregnancy. ABS India imports live Holstein and Jersey bulls from

2023 Inauguration of BRAHMA - Asia's largest sexed semen facility. ABS India imports live Jersey bulls from USA.



80 Years of Genetic Progress



Headquartered in Deforest Wisconsin, U.S.A., **ABS Global, Inc.** is the world-leading provider of genetic improvement solutions and reproduction services that help customers **PROFIT FORM GENETIC PROGRESS.** Marketing in nearly 80 countries around the globe, ABS has been at the forefront of animal genetics and technologies since its founding 80 years ago. **ABS Global** is a division of Genus PLC.

Our strength in this ever-changing market comes with almost 80 years of service to dairy producers around the world. And while we recognize no single formula can solve the genetic needs of every operation in the world, we are focused on the single goal of helping our customers succeed. As a result, **ABS** offers a varied line of superior genetics-with unique services, technology and products-to meet the demands of the many climates, market variations and preferences of the cultures we serve.

Along with these quality tools, are quality people who understand the value and need of the service they provide. Wherever you find **ABS**, you'll find people committed to the success of the customers we serve-striving to provide protein and energy to more of the world's people

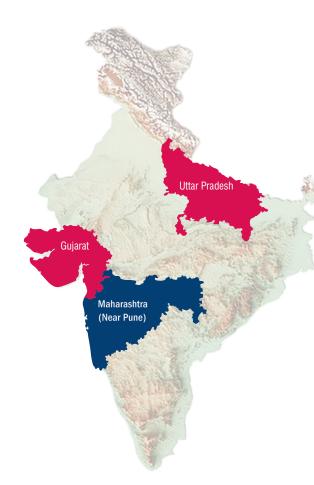
1	GLOBAL	FACILITIES	
	North America	USA, Canada	
	South America	Brazil	
Ī	Europe	UK, Italy	
	Asia	India	
	Australia	Australia	

MANY FIRST from ABS GLOBAL				
1953	ABS produced first calf using frozen semen in North America - "FROSTY"			
1956	ABS developed the first cryogenic insulated vessel with Linde Corporation			
1960	ABS launched first comprehensive system of genetic linear assessment for Type			
1968	ABS launched GMS - First Comprehensive program designed to optimize genetic progress			
1988	ABS became the first company to successfully clone bulls out of embryo splitting			
1997	ABS produced first cloned calf out of a somatic cell, named "GENE"			
2008	Incorporated genomic values in its sire acquisition program			
2013	18 of ABS bulls cross One Million Mark			
2015	ABS Global develops TransitionRight™, a genetic solution to help prevent the multiple, post-calving metabolic disorders.			
	ABS Global acquires In-Vitro Brazil (IVB), the world leader in commercial bovine In-Vitro Fertilization (IVF).			
2016	The company celebrates 75 exciting years of genetic progress.			
2017	ABS Global launches Sexcel [™] Sexed Genetics.			





ABS INDIA



Sexcel Sexed Genetics

INDIA PRODUCTION FACILITY

Maharashtra (Near Pune)

OTHER PRODUCTION FACILITY

Gujarat (Mehsana, Patan) Uttar Pradesh (Babugarh) Genus Breeding India **(ABS India)** is part of Genus PLC the world's leading provider of bovine genetics and reproduction services, marketing in nearly 80 countries around the globe. Genus Breeding India Pvt. Ltd. is a fully owned subsidiary of Genus PLC (listed on the UK stock exchange) and was established in early 2010-11. Through Genus extensive research and development programme, its cutting edge technology is being used to maximise the potential of dairy farms throughout the world.

Genus Breeding India **(ABS India)** is part of ABS Global, a division of Genus PLC Worldwide Genus PLC is the owner of ABS and PIC, the two largest companies in bovine and porcine genetics respectively. Genus PLC also owns Promar International, the leading livestock consulting company in the world.

Genus Breeding India (ABS India) has also entered into a Production JV with Chitale Dairy situated in Maharashtra for production of semen from the selected elite bulls in India through Chitale Genus ABS (India) Pvt. Ltd. ABS India adopts its international standard for selection of bulls for semen production with regards to genetics and health standards. ABS India has also started producing and marketing semen produced out of the live bulls imported from U.S.A. for the first time in the country. ABS India has a robust ET programme for semen production from bulls born through embryos imported from North America and genomically testing them.



A/A Animal breeding is all about selection of elite parents with the intention to improve desirable qualities in next generation dairy animals. Looking at the present situation of Indian dairy industry, where milk and feed prices are in competition to produce quality milk; we felt the need of innovation and came up with the genetic product which is created using superior genetic merit sires, biology with engineering and world-class bio-manufacturing.

Vishvas Chitale Director B.G. Chitale Dairies Pvt Ltd



In 2017, **ABS India** deployed Genus IntelliGenTM Technology, in India and started first bovine semen sexing lab in the country at its Brahma Genetics Facility, Chitale Genus ABS India Private Limited, near Pune in Maharashtra.

With IntelliGen[™], we providing sexed genetics under brand **ABS Sexcel** for breeds like Holstein, Jerseys & indigenous breeds like Sahiwal, Red Sindhi, Gir, Hariana along with crossbreeds and Murrah, Mehsana, Jaffarabadi buffaloes for the first time. We are offering 21st Century technology which leads to more good quality heifers, higher profits, and therefore, a better and improved way of life for farmers.

The Genus IntelliGen $^{\text{TM}}$ Technology process to develop sexed bovine genetics does not subject cells to the high pressures, electric currents and shear forces. The result is a product that helps customers maximize their profitability and reach their end goals in a fast and efficient manner.

ABS India has strengthened its genetic offering through **ABS Neo** - confirmed IVF sexed pregnancies to the dairy farmers through ABS's unique and proprietary media, processing and freezing techniques. ABS Neo is helping progressive dairy farmers in India to produce Highest Genetic Merit heifers in India and enhancing productivity by fast tracking the genetic gain.





BAHUBALI

29MU0036 (INAPH: CHI-BAHUBALI)



PRODUCTION TRAITS		
Dam's Yield (Kg)	5586	
Fat%	7	
Fat Kg	407	
Sire dams yield (kg)	NA	
Parent average yield (kg)	NA ,	





Scan QR CODE

- High Milk Production
- High Fat
- Solid daughters

MAHARAJA

29MU0034 (INAPH: CHI-MAHARAJA)



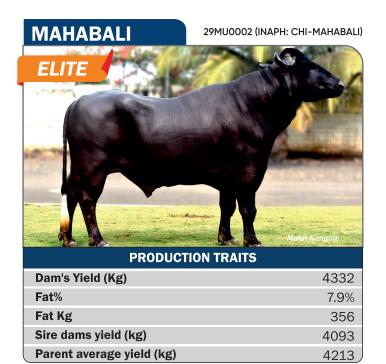
PRODUCTION TRAITS				
Dam's Yield (Kg)	5597			
Fat%	7.2			
Fat Kg	419			
Sire dams yield (kg)	NA			
Parent average yield (kg)	NA			

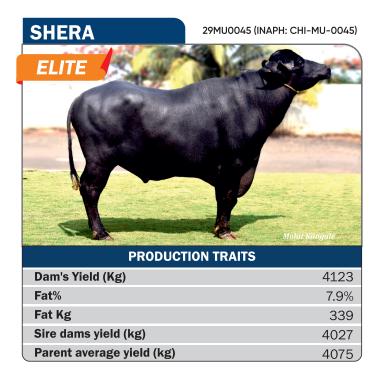


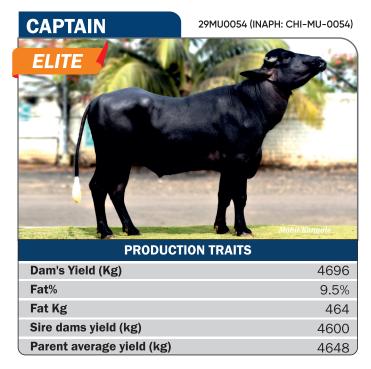


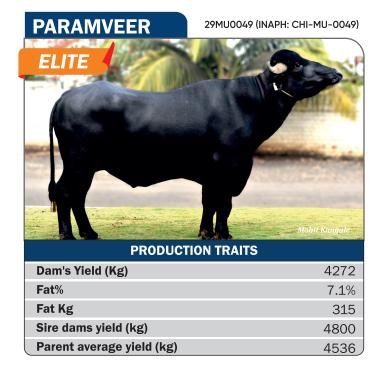
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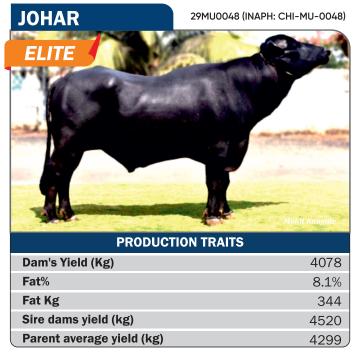
- High Milk Production
- High Fat
- Excellent stature

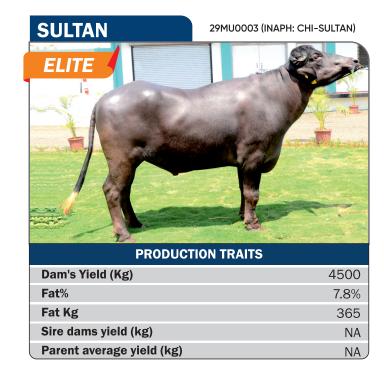


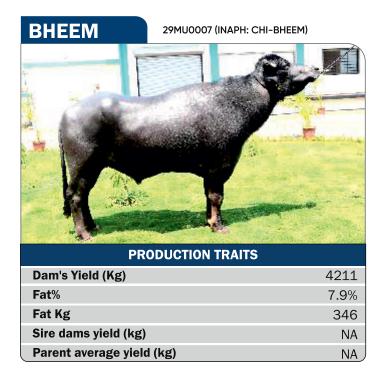


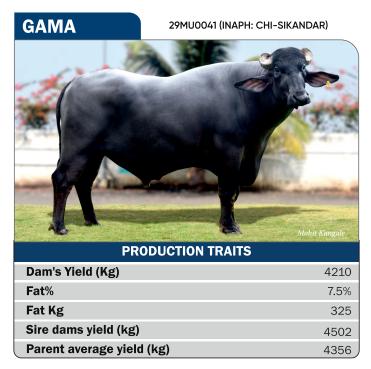


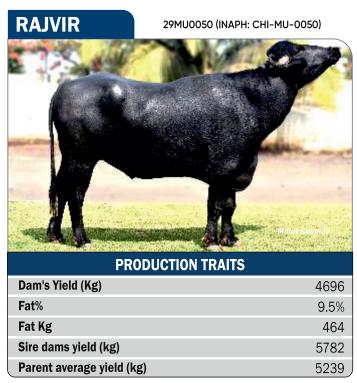


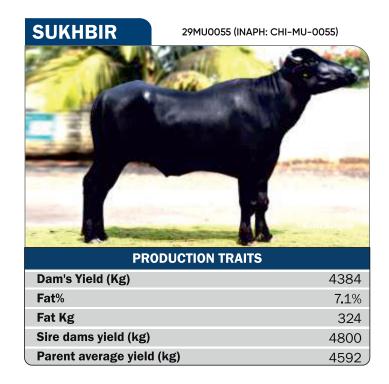




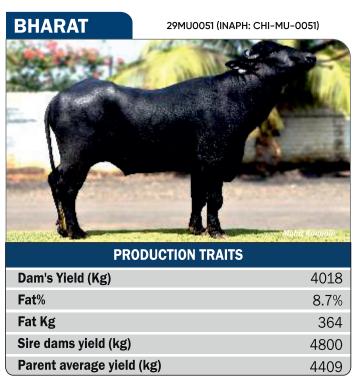


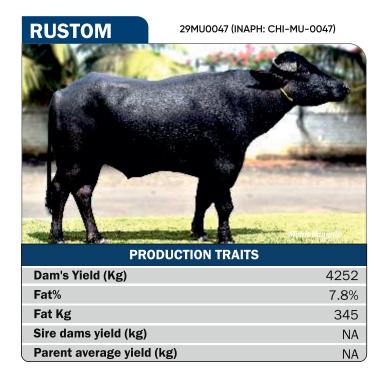


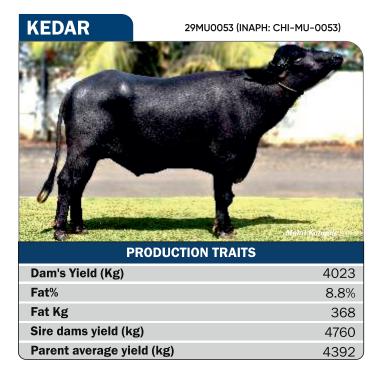


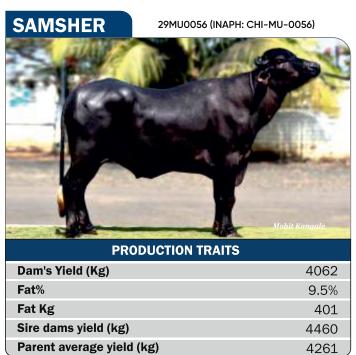


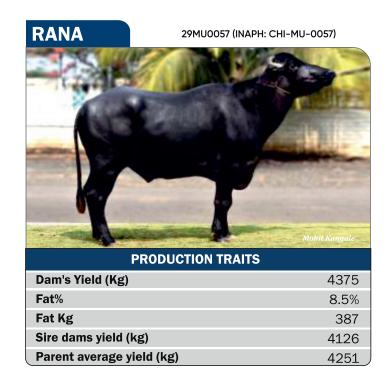


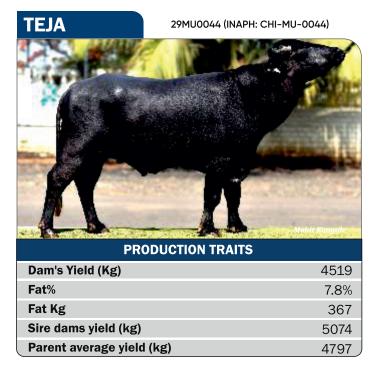


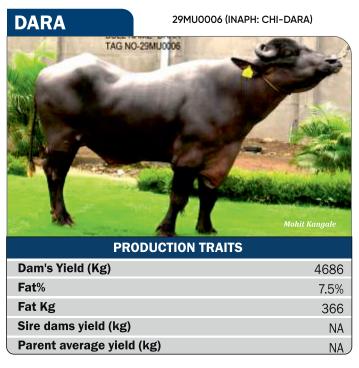


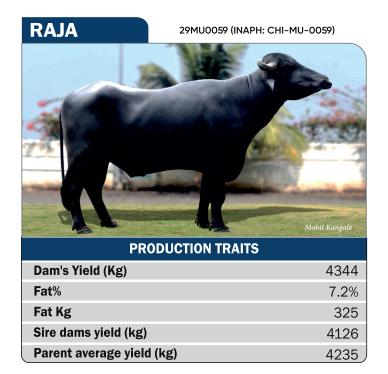


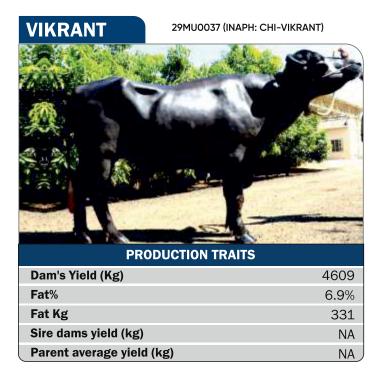


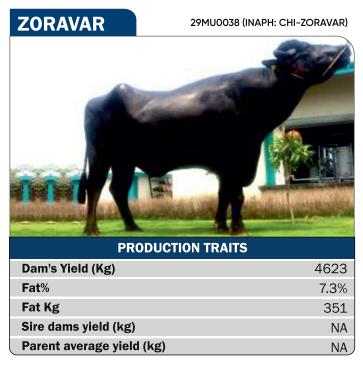


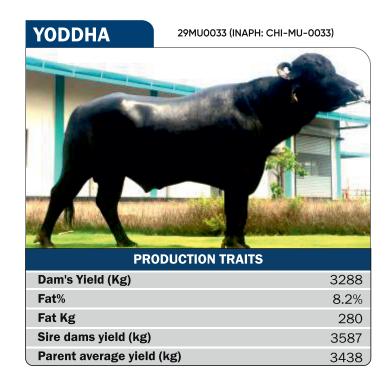


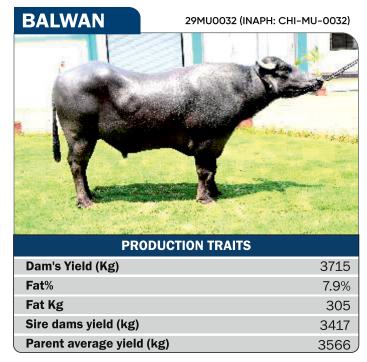


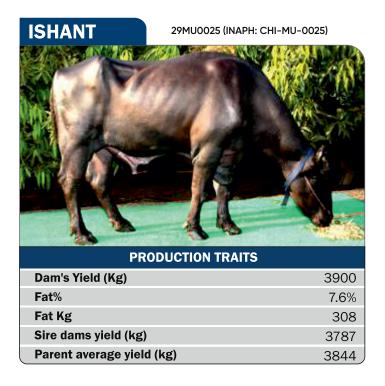


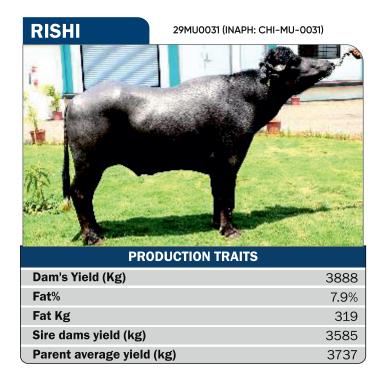


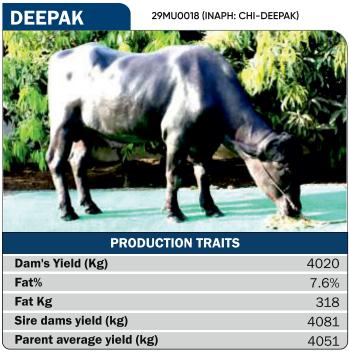


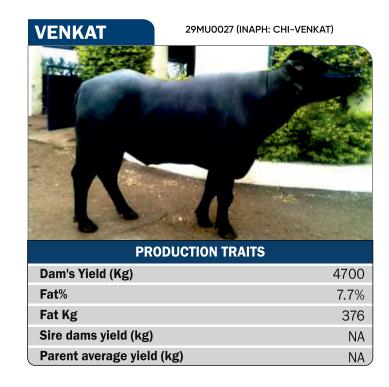


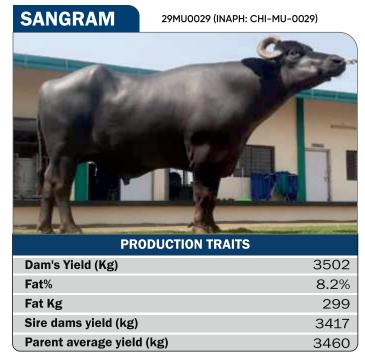


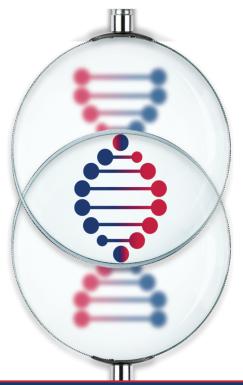














ABS India is committed to developing and offering elite genetics that drive profitability.

Profit from Genetic Progress requires a planned strategy to ensure value from each and every pregnancy



"Fast Forward your Genetic Progress"







Sexcel[™] Genetics - Straw Handling Guidelines

At ABS India, the experience when using our genetics is a priority. Every semen collection from ABS sires undergoes a series of rigorous quality control evaluations to ensure that every straw sold meets our high standards.

To get the best possible results from using Sexcel[™]genetics, please use the following straw handling protocol:

1. Straw identification and transfer

- Use the tank inventory card to identify the rack/goblet location containing the straw.
- Never lift the rack/goblet above the frost line in the neck of the tank
- If the straw is not identifiable within 10 seconds, lower the rack/goblet back into the liquid nitrogen for at least 10 seconds before recommencing identification.
- Use the appropriate tweezers for 0.25cc straws, never use fingers to pick up straws.

2. Thawing procedure

- ABS recommends thawing only one straw of Sexcel at a time as the objective is to thaw
 the number of straws that can be inseminated within 5 minutes of thawing.
- Replace the thaw bath water daily and ensure the temperature is between 35°C to 37°C (95°F to 98°F) using a thermometer.
- Thaw the straw in the water bath for 30 seconds.
- Remove the straw from the water using tweezers and protect from the environment using a clean, dry paper towel. Use the paper towel to dry the straw.

3. Move the air bubble

- Gently shake the straw taking it with the tip of your fingers by the crimped end to move the semen to
 the plugged end and air upwards to the crimped end of the straw. Shaking the straw will not damage
 the sperm cells; if the bubble is not moved, 1-5% of the sperm will be lost.
- Ensure that there is minimal time between removing the straw from the thawing bath and loading it into the Al gun, and that you protect the straw from cold wind and sunlight.

4. Load the Al gun

- Place the thawed straw into the AI gun with the plugged end first.
- Cut the straw at 90 degrees 1cm (0.4in.) below the crimped end, with clean scissors or a straw cutter.
- Place the plastic sheath over the loaded Al rod. Ensure that the straw enters and adapts well inside the green or blue plastic piece of the sheath.
- Carefully depress the plunger so that semen enters the end of the straw but does not escape from the sheath, removing the air bubble from the straw.
- The use of a plastic 'sanitary sheath' is recommended on top of the Al gun sheath.

5. Number of straws per heifer

Inseminate one complete straw per heifer, do not split straws.

"Pioneering Animal Genetic Improvement to Help Nourish the World"



Genus Breeding India Private Limited (ABS India)

Registered Office: 5th Floor, C Wing, Eternia Premises CO-OP Soc, Near DA Unit No. 505, 506, Dagdi Bunglow, Wakdewadi, Pune, MH 411005, IN



- www.genusabsindia.com

□ - abs.india@genusplc.com

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