

Profit From Genetic Progress

Looking Ahead...

We hope all of you are staying safe and coping well with the evolving Covid 19 situation and taking all necessary precautions. We take pride in ABS' commitment to continue to serve its customers through the pandemic to help them maintain the critical food chain and we are glad to share the communication we had with **Dr. Gurdial Singh**, Honorable Vice-Chancellor of LUVAS, Haryana. As we adjust to the new normal, we are also working to enhance the genetic offering for our dairy customers with the launch of new highest ranked dairy bulls and a completely new offering – bringing the ABS global leadership in IVF technology to the doorstep of the farmers in India in collaboration with LUVAS, a premier veterinary and animal sciences university. As leaders in animal genetics globally and dairy genetics in India, ABS's In-vitro fertilization will pave the way in amplifying the reproductive rates of valuable females, generating the fastest genetic gains due to the best genetic contribution both from the female and male sides.

"We have joined hands with the global leader in IVF for cattle (ABS) to create the most modern IVF lab for bovines in India to create high genetic merit confirmed pregnancies for the dairy farmers in the state", Dr. Gurdial Singh. Dr. Singh said it is a great opportunity for the farmers to shorten the generation interval for genetic gain for higher productivity and propagation of premium livestock.

It is supported by Haryana Livestock Development Board (HLDB) and Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. *"ABS helped us set up the lab, will train and create a capacity-building in LUVAS and create confirmed pregnancies, using their consumables and sharing their proprietary IVF media and proprietary protocols. The facility is ready and will soon start offering premium services to the farmers of the state", said Dr. Gurdial Singh.* *"It is probably the largest bovine IVF facility in India with a capacity to produce up to fifty thousand embryos annually. To add to its credit, the ABS and LUVAS team will create sexed pregnancies with sexed embryos capable of producing up to 90% female offsprings. I hope it will be a great example of an academia-industry association in the Veterinary field and will serve the dairy farmers of Haryana for many years, bringing them success and higher productivity."* Dr. Singh informed that the facility would be formally inaugurated soon.

Dr. Arvind Gautam, Managing Director of ABS India added that IVF will not only result in increasing the productivity per animal, thereby helping to increase farmers' income but has several other benefits: IVF, overcoming physiological problems, can produce offspring from elite animals that are non-productive in traditional methods due to repro issues; preserve valuable elite genetics; produce embryos from a wide variety of donors; reduce semen cost; shorten generation interval and less hormone reliance by moving away from administering expensive hormones for super-ovulation in traditional methods. *"It feels great to be associated with LUVAS as I graduated from the same university and owe a great deal of my success to my alma mater. The lab has come out very well and is world-class", said Dr. Arvind Gautam.*

ABS is a market leader with over 60% market share globally in IVF with proprietary media and protocols. ABS India looks forward to creating elite sexed pregnancies using eggs from top genetic females and semen from top ABS bulls under the brand "ABS Neo" and only the highest genetic merit sexed pregnancies would be available, right at the doorstep. It is a step above the rest and in sync with Genus ABS's vision of pioneering animal genetic improvement to help nourish the world. *"We are working with many states and open to associate with other academia and states to deliver the best dairy genetic solution for the farmers of their state, be it creating elite bulls/genetics, genomics, genomic selection markers for indigenous breeds, customized genetic indices, IVF, sexed semen production or sexed pregnancies", Dr. Arvind Gautam*



DR. GURDIAL SINGH
Vice Chancellor



DR. ARVIND GAUTAM
Managing Director

PERFORMANCE matters



ABS Pennymaker is one of the top performing bulls, not only in terms of high milk production, but also higher in transmittability of other production, linear dairy traits. **ABS India** is glad to have about 20 more bulls today that have much higher genetic values and potential (genomic evaluation). Therefore **ABS India** expects its progenies in India to perform even higher. **"Excellence is in our DNA"**

Source and Picture Courtesy: **hindustantimes**

www.hindustantimes.com/cities/cow-sets-record-by-yielding-76-61kg-milk-in-24-hours/story-P5vF1eQ9UfGB5zGUH8VWnK.html

Sire: **ABS PennyMaker**



Breeding Decoded

TPI

Total Performance Index is the USA Holstein Association's multi trait Index that ranks bulls based on their overall performance. The traits included in the TPI formula are given below.

PTAP = PTA Protein	PL = PTA Productive Life	PTAF = PTA Fat
LIV = PTA Cow Livability	FE = Feed Efficiency	SCS = PTA Somatic Cell Score
PTAT = PTA Type	FI = Fertility Index	UDC = Udder Composite
DCE= PTA Daughter Calving Ease	FLC = Feet & Legs Composite	DSB = PTA Daughter Stillbirth

Weightage of Major Categories

- Production - 46% (Fat, Protein, Body Weight Composite, and Feed Efficiency)
- Health & Fertility - 28% (SCS, PL, HT, LIV, FI, DCE and DSB)
- Conformation - 26% (PTAT, UDC and FLC)

PTA: PTA stands for predicted transmitting ability. This is the best estimate of the sire's superiority (or inferiority) in transmitting production or health or type characteristic/traits to daughters.

The traits and their weightage have been changed from time to time as per the requirements of the dairy farmers. Weightage given above is the latest as per August 2020 proof. Today we make multiple uses of TPI.

- to select parents especially bulls to be used,
- to market both cows and bulls,
- to follow the breed's breeding strategy specifically identifying the animals that best combine the traits and weightings in the strategy
- To rank bulls based on the breeding value.

IDI

India Dairy Index: While TPI is being used to rank the bulls globally, it is not justifiable to select bulls in India based on the same trait/ formula as the requirements are entirely different. A local Index was therefore developed by ABS for the first time in India. It is a tool to help customers choose the best ABS sires for their dairy herds. For example – While PTAF (PTAFat) is extremely important for dairy farmers as milk price is based on fat, PTAP (PTA Protein) is not of much use as the farmers are not paid based on protein. Therefore it only makes sense to have more weightage on PTAF as compared to PTAP for the Indian dairy farmers.

Traits like PTAF, PL, SCS, FI, DCE which are most impactful under Indian conditions form the backbone of the India Dairy Index.



Changes in temperature after semen has been thawed are not important.

Correct Procedure: Protect semen from environmental changes while loading into insemination equipment and transferring to the cow. Failure to protect sperm can either cause cold shock or heat stress, both of which will result in lowered fertility.



What's New

ABS India has always strived to improve its bovine genetics offering and focuses to provide best suitable high genetic merit sires, helping dairy farmers to achieve the growth objectives and meet newer requirements of efficient dairy farming.

We are happy to launch our new Holstein bull “ABS SPIKE”. Spike is part of young live bulls flown in from the ABS Global, USA. He has the distinction of having the highest net merit (NM) in India.

ABS Spike (bull ID 29H019596) is a genomic bull from the ABS-DeNOVO genetics facility of ABS Global. ABS-DeNovo Genetics is a dedicated facility to create elite and differentiated Holstein genetics for customers around the world. Launched in 2016, ABS Global operates this joint venture with De-Su Holsteins, North America's leading independent breeder of high \$NM (net merit) and TPI® (total performance index) Holstein sires.

ABS Spike is a complete package for superior genetics with India's highest PTAF (Fat), highest Productive life, and the highest NM of \$ +698, equivalent to almost Rs. 52,000. Spike has a higher genomic PTA value for total fat (+76 lb) along with high total protein (+36 lb). It will help to improve the fat percentage and total fat (Kg) for the Indian dairy farmers who are facing problems of low-fat content thereby incurring a loss of revenues due to the low selling price of milk. Steadily increasing cheese consumption is also pushing up the demand to have higher protein milk. ABS Spike comes across as one of the top choices to be included in the breeding program for creating future-ready heifers with improved economic traits.

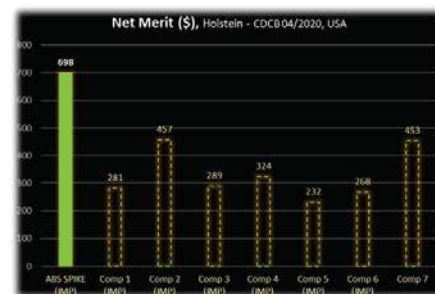
For more details on ABS Spike please visit <https://www.youtube.com/watch?v=jNyR1dxvwS4>

**Better FLC +0.78 FLC - less prone
to hoof and feet problems**

**DPR +1.8 - Better fertility
rate of daughters**

**PL + 6.2 months - Highest
Productive Life**

Available in sexed and non sexed.



ABS SPIKE

+ 698
Highest Net Merit
Holstein
Bull in India

+ 76
Best
Improver of
Fat in India

+ 6.2
Highest
Productive
Life in India

For info mail us us-absindia@genusplc.com



Milk Facts

TMR

Total Mixed Ration (TMR) is one of the important feeding methods to be implemented at any size of the farm. Mixing of chopped green, dry & the concentrate mix together.

How to make Handmade TMR

1. Calculate total quantity of concentrate mix, green and dry fodder required based on body weight and production of a cow or buffalo for a day
2. Divide the quantity for two or three or four times feeding depending upon your convenience and practice.
3. Chop green and dry fodder together
4. Add little water to the concentrate and make it like dough
5. Mix concentrate along with chopped green and dry fodder & your hand made TMR is ready!

Benefits

1. TMR gives uniform taste of feed so that animal would not go for eating what she likes
2. TMR also improves total feed intake resulting in more milk production
3. It maintains rumen pH thus reduces acidosis resulting into better digestion & fat production
4. Introduction or change of feed ingredients can be implemented without major struggle



Dairy Talk

New into the dairy business, they faced numerous challenges for the first three years when Singh brothers, **Ravi Inder Singh** and **Preet Inder Singh** started **Chandi Dairy Farm** with ten (10) animals. This prompted them to undergo training organized by the Animal Husbandry Department, Government of Punjab where they learned management of commercial dairy operations with the importance of genetics, nutrition, and management. Today, they are managing one of the most successful dairy operations in Amritsar, adapting it as their family business with other family members involved as well. ABS's Sukhdeep Singh had the pleasure of catching up with Singh brothers who shared their experience and views on commercial dairy farming.



Sukhdeep Singh (SS): How do you rate the three main aspects of profitable dairy farming i.e. genetics, nutrition, and management?

Ravi Inder Singh (RS): All three are important and part of the scientific management of any dairy. Genetics plays a pivotal role and by our long experience can say that genetics is the least cost input, about 1 % of total annual cost on the cow including the cost of semen but has the biggest impact on the output or production of the animal. The important thing is nutrition and management can be changed post-birth but not genetics. An improper genetic selection pushes back the dairy by 3-4 years

Preet Inder Singh (PS): Genes are permanent and thus semen should be carefully selected well before the insemination according to the dairy objectives. Merely selecting the semen on dams yield will not yield required results in today's dairy world when pressure on production is high. It would be rather counterproductive for the performance of the next generations which is the future of any dairy. Extraordinary genes need to be suitably backed up by favourable nutrition and improved management to achieve the full potential of the animal.

SS: What led you to choose ABS genetics as your dairy Genetic partner?

RS: We consulted our friends abroad about making dairy more profitable and the type of semen that they use on their farm. They recommended ABS's genetics, informing daughters of ABS bulls were performing well. We got ABS semen for the first time in 2011 when ABS started its operations in India. We started using and got excellent results and have been using ABS genetics at our farm since then.

PS: ABS India team launched high genetic merit semen from genomic bulls for the first time in India in 2013 and ET and imported live bulls subsequently. ABS introduced world-class bulls to us and we have been regularly using the high Net Merit semen of improver bulls, resulting in more milk yielding daughters than their mothers.

SS: What key benefits have you noticed from using imported and genomic genetics of ABS?

RS: First things first! Milk yield has just doubled from earlier animals' daily average yield of 12-15 kg to over 25-30 kg now. The body score of cows has improved. ABS genetics has helped us a lot in getting more milk from fewer animals with the improved udder, feet and legs, and conformation traits. In short, better animals, more production, and higher genetic gain.

SS: Looking at benefits, how much are you convinced that you made the right decision of using Sexcel (Sexed Semen) for growing your farm from within?

RS: Due to many biosecurity reasons, we cannot trust other farms for replacement animals. So we started using sexed semen to get more heifers. We are using Sexcel at our farm since late 2017 and soon be having Sexcel heifers in milk

PS: Also, adding to it we are satisfied with the results of Sexcel. The First and foremost important thing is Conception and we have got a 52% conception rate at our farm with Sexcel, higher than any other sexed product at our farm. We are glad we managed to grow faster with more production and profitability as Sexcel is available only from top ABS bulls.

SS: How has been your ABS experience and where had you been had you not chosen faster genetic gain at Chandi dairy farm?

RS: We are using ABS genetics on our farm for almost a decade. Had we not chosen ABS, it would have been very tough for us to reach the milestone where we are today. We would still be using non-genomic, inferior genetics, and could have been struggling. I don't wish to imagine such a scenario.

PS: No other company brings or adds new and such high merit genetics as ABS does. If we would have chosen any other genetic partner, then we could have used old bulls of low genetic traits. However, thanks to ABS, we have reached our targets in a shorter timespan.

SS: What Would be your advice to your fellow dairy farmers?

RS: We are facing unprecedented situation due to COVID 19 and milk prices have touched rock bottom with not enough offtake from the farm. It has made us realize that only those farms would survive that have bred cautiously. I would advise farmers to produce more out of fewer cows to stay profitable and survive off the crisis. Adopt newer advanced and global technology, breed wisely for a better future, and design favourable nutrition program to help cows perform to their genetic potential.

PS: Every penny counts so focus more on the breeding strategy and proper selection of the bull to create the next generation of heifers that are more profitable than the present ones. Use more Genomic and Imported bulls and select for the traits that you wish to improve at your farm to FASTEN YOUR DAIRY FARM'S GENETIC PROGRESS. Of course, balanced feeding will complement good genetics. Don't hesitate to consult the experts, whenever needed.



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