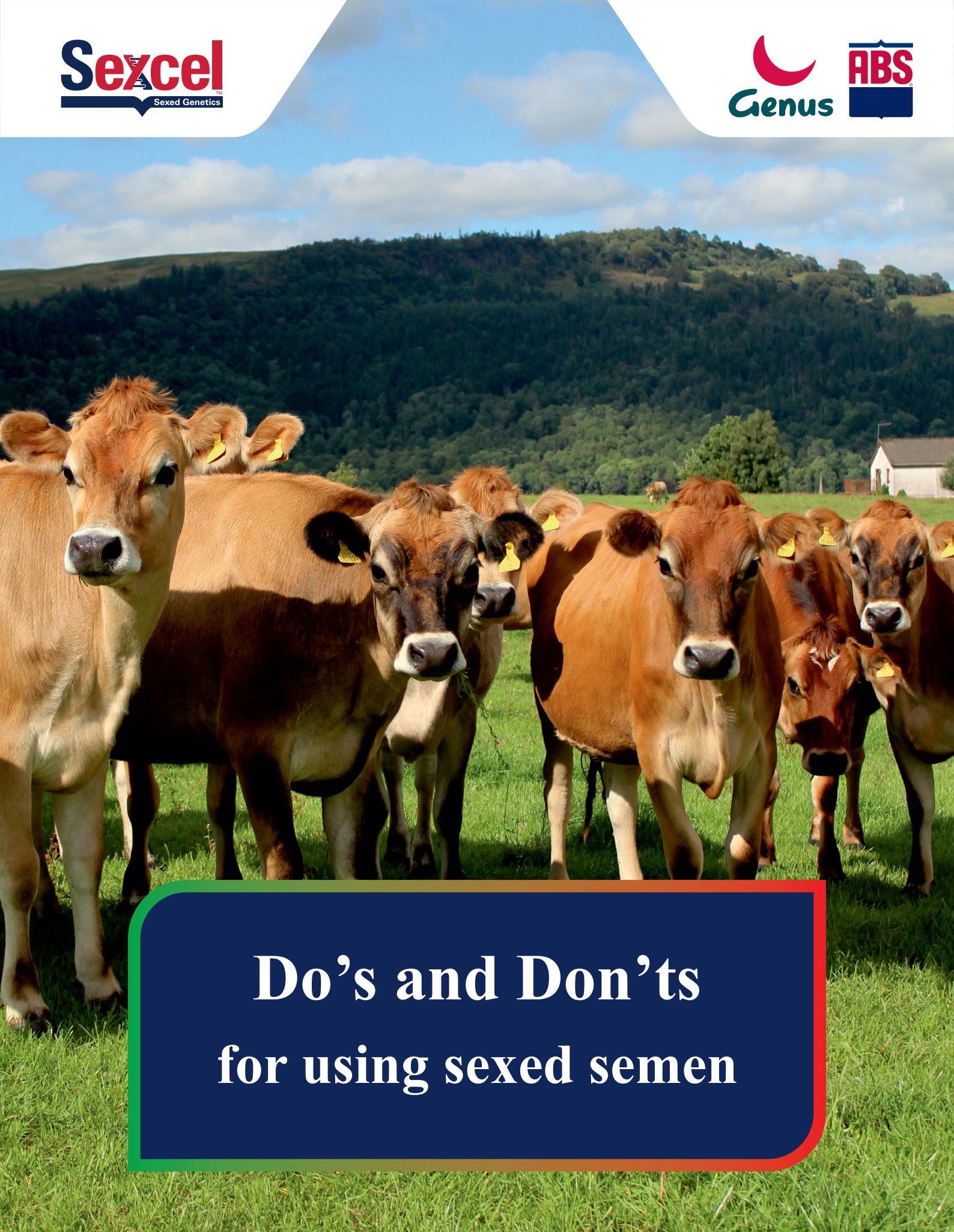
Sexcel Sexed Genetics

Genus ABS



Do's and Don'ts for using sexed semen

POWERED BY IntelliGen™ TECHNOLOGIES

Bridging Borders Unleashing Jersey Bull Genetics #PROJECT JERSEY

Please follow the following while using sexed semen

	Do's	Don'ts
Target Animals (Sexed semen should not be used in all animals)	Best suited animal for use of sexed semen are Heifers followed by pupiparous animals in 1st lactation followed by 2nd lactation in the same order of preference. Selected animals should be reproductively clean	Not for every animal. Not to be used in aged, beyond 3rd lactation and repeat breeders. Don't use in animals with reproductive pathology (issues) – history of dystocia, cervicitis, metritis, pyometra or retained placenta etc.
Minimum Body weight in Heifers	Heifer should be bred by weight and not by age. Heifer should be of minimum 300 Kg body weight for use of sexed semen Heifer should have exhibited at least two natural estrus cycles before AI	Don't use in under weight heifers First few cycles in heifers are short non ovulatory cycles
Heat	In standing heat, preferably morning or evening **Fig 1.** Best results using sexed semen can be achieved in breeding season of **September to April** in most parts of India due to comparatively low temperature and availability of fodder Cervical mucus should be clear, transparent and ropy **Fig 2.**	Don't use in animals reporting heat stress score of 2 and above. Don't use in hot and humid months. Heifers /cows panting due to high heat or high humidity undergo pathophysiological changes that prevents conception. High ambient temperature and high humidity is a deadly combination which compromise the ability to impregnate cows.
Packaging	Each goblet is packed with 10 straws. For sub-distribution, transfer the entire goblet. Avoid multiple handling of straws.	Don't give loose straws while distributing to smaller dispensaries. This leads to multiple exposure to straws and impact quality and conception
Identification of Straws	Identify bull with a canister tag or the marker strip. Each vasotube/Goblet is identified by a marker strip of yellow color having the bull name **Fig 5.** After removal of the desired straw, canister should be replaced at its original position as early as possible	Don't lift the straw/ goblet above the frost line to identify the bull **Fig 3.**

Fig : 1
Standing Heat

Fig : 2
Cervical discharge

Fig : 3 Don't lift the canister above the frost line.

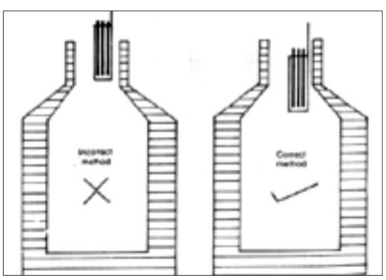


Fig : 4 Placement of semen in the Uterine Body.

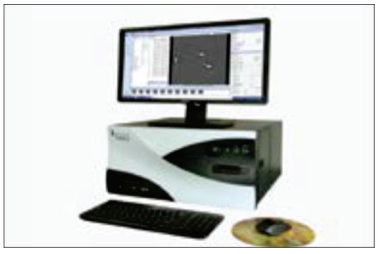
Semen Transfer	All semen transfers between nitrogen tanks or retrieval of semen from a nitrogen tank should be done as quickly as possible	Don't let the straws be exposed to higher temperature. Multiple counts and loose straw distribution may expose/thaw semen , reducing quality
Semen Straw Handling	Semen Straw to be handled essentially by tweezers.	Don't use hand while transferring a straw for thawing.
Thawing	At 37 degrees for 30-60 seconds, Use thaw monitor for checking temperature of water **Fig 6.** Thaw only One straw at a time even if animals are synchronized. Give a gentle jerk to the straw immediately after removal. During thawing, entire straw should be immersed in water Shake the straw to move the air bubble towards the crimped end of the straw before cutting.	Don't thaw multiple straws at a time Don't judge the temperature with fingers. Use of thaw monitor is must
Insemination	Prepare the animal, AI gun, sheath and gloves etc before thawing so that AI is done immediately after thawing Push the plunger slowly to allow semen to be deposited in drops in the body of the uterus **Fig 4.** As the average conception rate is around 40% hence be prepared for 2-3 consecutive inseminations using sexed semen to achieve desired results	Don't thaw and then prepare the animal or AI equipment. Avoid placing semen in cervix or uterine horn Don't push semen like a jet Avoid palpating the ovaries /follicle
Nutrition	Please make sure that animals are in positive energy balance. It is recommended to check whether the animal is dewormed at a regular interval and fed with good quality mineral mix for at least 2 months period before insemination	Don't select the animals which are in negative energy balance. The chances of conception even with unsexed semen is generally low in under fed animals **Fig 7.**
QC Testing (Post Thaw Motility0	Sexed Semen Post thaw motility should be performed on IVOS II (CASA) **Fig 8.**	Sexed Semen post thaw motility test should not be perform on regular Phase contrast Microscope

Fig : 5 Goblet and Marker strip for straw identification.

Fig : 6 Thaw Monitor

Fig : 7 NEB

Fig : 8 Casa IVOS II



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Genus

Let's Get Benefit With Sexcel!

ANIMAL SELECTION

Heifer

- Exhibited at least two natural heat cycles before AI
- Min 250- 300 kg or 60-70% of matured body weight
- Breed by body weight & not by age

Cow / Buffalo

- Cow or buffalo in 1st, 2nd & 3rd lactation are best suited for use of sex semen.
- Cow must have adequate body condition & should be cycling regularly.
- Don't use animal with previous history of dystocia, cervicitis, metritis, pyometra or retained placenta etc.
- Don't perform AI in animals who are panting due to high heat & high humidity.
- Don't use sexed semen in repeat breeders.
- Don't use sexed semen in animals having negative energy balance.

ANIMAL PREPARATION

Identification

- Ensure animal is identified using 12-digit INAPH code.

Deworming

- Make sure that animal is dewormed at regular interval.

Nutrient Management

- Feed quality mineral & vitamin mix for minimum period of 30 days before insemination process.
- It is recommended to synchronize the herd using double ovo-sync protocol for achieving max conception. (Synchronization is only recommended in cows.)
- Consult with local veterinarian for more information.

INSEMINATION PROCESS

Heat Detection

- Identify signs of heat. (i. e. Standing Heat, Mucus Discharge, Restlessness, Sniffing of Genitalia etc.)
- Best time of insemination - Morning or Late Evening

Insemination

- Identify semen straw by a yellow color marker strip in goblet with the bull name. Don't lift the straw above frost line.
- Use thaw monitor to check water temperature 37° C.
- Thaw only one straw at a time. A straw should be immersed in water completely for 30-60 sec.
- Inseminate as soon as possible after thawing.
- Always deposit the semen in uterine body & avoid placing semen in cervix or uterine horn & palpating the ovaries / follicle.
- Record breeding information.

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ABS 80 YEARS

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