2. Technical Specifications

Specifications for Jersey semen
(Deep Frozen Semen - 4000 doses for AB division)

S. NO.	SPECIFICATION	BIDDER RESPONSE (YES/NO)	EVIDENT DOCUMENTS / DETAILS ARE ATTACHED (YES / NO)	REMARK
1	Breed purity - 100% Jersey	Yes / No	Yes / No	
2	Breed type - Dairy Breeds	Yes / No	Yes / No	
3	Semen should be provided at least 2 unrelated bulls.	No of bulls :	Yes / No	
4	Donor bulls should be unrelated for at least four generations. History of the bull indicating names and herd registration, parents and all grand parents should be produced along with the tender document.	Unrelated : Yes / No	Pedigree sheets are available : Yes / No	
5	Dam's First standard lactation yield (305 days) not less than 7000kg of milk, butters fat ≥ 4.5%. (should provide the dam's first lactation yield with butter fat % of each bulls selected)	Yes / No	Production records are available : Yes / No	
6	***Progeny tested donor bulls are preferable***	Yes / No		
7	***If progeny tested, Donor bull*** should have + sire indices / Breeding values (EBVs) (with reliability of ≥85%. Milk yield ≥ + 1700 kg, Fat yield ≥ +44 kg and Protein yield ≥ + 56 kg. Fat percentage ≥ 5%, protein percentage ≥ 3.4%. (progeny testing details should provide for each bulls)	Yes / No	Progeny test reports are available: Yes / No	
8	Progeny testing details of ***sires and paternal & maternal grand sires*** including EBVs of milk yield, Fat and Protein yields and percentages should be provided	Donor bulls' sires, paternal grand sires and maternal grand sires are progeny tested : Yes / No	Progeny test reports are available: Yes / No	
9	The donor bulls should be free from fertility problems.	Yes / No	Yes / No	
10	Bull's sire should be improver for type characters like foot and udder conformation	Yes / No	Yes / No	
11	Semen donors should be from registered herds with Official Certificates of Registration with Pedigree and Production records.	Registered : Yes / No	copies of official certificates of registration are attached : Yes / No	
12	Bulls should be free from all known genetic disorders like bovine leukocyte adhesion disease (BLAD), deficiency of uridinemono-phosphate synthetase(DUMPS), citrulinemia (deficiency of argino-succinate synthetase) and Factor XI.	Yes / No	Evidence documents attached. Yes / No	
13	All details including history and performance should be in English language.	Yes / No		
14	Bulls are preferred with homologous for A_2A_2 gene	Yes / No	Evidence documents attached. Yes / No	

B	Semen Details			
1	Country of semen production			
2	The semen should be in 0.25 ml deep frozen semen straws with easy identification of the breed and sire.	Yes / No	Evidence documents attached. Yes / No	
3	Ejaculated sperm concentration should be approximately $1000*10^{6}$/ml	Yes / No	Evidence documents attached. Yes / No	
4	Mass motility should be ≥ +++ (in 1 to 4 scale)	Yes / No	Evidence documents attached. Yes / No	
5	Dead sperm should not exceed 20-30% and the abnormal sperm in the first ejaculation should not exceed 15-20%	Yes / No	Evidence documents attached. Yes / No	
6	Semen should be evaluated on the basis of functional integrity of sperm membrane (Fresh semen collected from bulls should be subjected to the hypo osmotic swelling (HOS) test). The mean sperm positive to HOS test should be > 65%.	Yes / No	Evidence documents attached. Yes / No	
7	Post thawing forwarded progressive motility should be more than 50%.	Yes / No	Evidence documents attached. Yes / No	
8	frozen straw (each dose) should contain minimum 15 million sperms	Yes / No	Evidence documents attached. Yes / No	
9	Cold chain management of semen (LN) at -196 ^{0}C up to dispatch is essetial	Yes / No	Evidence documents attached. Yes / No	
10	Disease free status - semen must be free from the diseases that are in the health protocol provieded by Veterinary Regulatory Division - DAPH	Yes / No	Evidence documents attached. Yes / No	

Specifications for Gir semen

Deep Frozen Semen - 10,000 doses for AB division

S NO	SPECIFICATION	BIDDER RESPONSE (YES/NO)	EVIDENT DOCUMENTS / DETAILS ARE ATTACHED (YES / NO)	REMARK
1	Breed purity - 100% Milking Gir	Yes / No	Yes / No	
2	Breed type - Dairy Breeds	Yes / No	Yes / No	
3	Semen should be provided at least 5 unrelated bulls.	No of bulls :	Yes / No	
4	Donor bulls should be unrelated for at least four generations. History of the bull indicating names and herd registration, parents and all grand parents should be produced along with the tender document.	Unrelated : Yes / No	Pedigree sheets are available : Yes / No	
5	Dam's First standard lactation yield (305 days) not less than 2500kg of milk, butters fat ≥ 5.0%. (should provide the dam's first lactation yield with butter fat % of each bulls selected)	Yield ≥ 2500Kg : Yes / No Butter Fat ≥ 5.0% : Yes / No	Production records are available : Yes / No	
6	***progeny tested donor bulls are preferable*** , progeny tested in year 2021/2022. (Indicate the number of daughters tested with EBVs)	Yes / No		
7	***If progeny tested,*** ***Donor bull*** should have + sire indices / Breeding values (EBVs) (with reliability of ≥85%. Milk yield ≥ + 1000 kg, Fat yield ≥ +35 kg and Protein yield ≥ + 35 kg. Fat percentage ≥ 4.5%, protein percentage ≥ 3.0%. (progeny testing details should provide for each bulls)	Yes / No	Progeny test reports are available: Yes / No	
8	***If progeny tested,*** Progeny testing details of ***sires and paternal & maternal grand sires*** including EBVs of milk yield, Fat and Protein yields and percentages should be provided	Donor bulls' sires, paternal grand sires and maternal grand sires are progeny tested : Yes / No	Progeny test reports are available: Yes / No	
9	The donor bulls should be free from fertility problems.	Yes / No	Yes / No	
10	mprover for type characters like foot and udder conformation	Yes / No	Yes / No	
11	Semen donors should be from registered herds with Official Certificates of Registration with Pedigree and Production records.	Registered : Yes / No	copies of official certificates of registration are attached : Yes / No	
12	Bulls should be free from all known genetic disorders like bovine leukocyte adhesion disease (BLAD), deficiency of uridinemono-phosphate synthetase(DUMPS), citrulinemia (deficiency of argino-succinate synthetase) and Factor XI.	Yes / No	Evidence documents attached. Yes / No	
13	All details including history and performance should be in English language.	Yes / No		

B	Semen Details			
1	Country of semen production			
2	The semen should be in 0.25 ml deep frozen semen straws with easy identification of the breed and sire.	Yes / No	Evidence documents attached. Yes / No	
3	Ejaculated sperm concentration should be approximately $1000*10^{6}$/ml	Yes / No	Evidence documents attached. Yes / No	
4	Mass motility should be ≥ +++ (in 1 to 4 scale)	Yes / No	Evidence documents attached. Yes / No	
5	Dead sperm should not exceed 20-30% and the abnormal sperm in the first ejaculation should not exceed 15-20%	Yes / No	Evidence documents attached. Yes / No	
6	Semen should be evaluated on the basis of functional integrity of sperm membrane (Fresh semen collected from bulls should be subjected to the hypo osmotic swelling (HOS) test). The mean sperm positive to HOS test should be > 65%.	Yes / No	Evidence documents attached. Yes / No	
7	Post thawing forwarded progressive motility should be more than 50%.	Yes / No	Evidence documents attached. Yes / No	
8	frozen straw (each dose) should contain minimum 15 million sperms	Yes / No	Evidence documents attached. Yes / No	
9	Cold chain management of semen (LN) at - 196 ^{0}C up to dispatch is essetial	Yes / No	Evidence documents attached. Yes / No	
10	Disease free status - semen must be free from the diseases that are in the health protocol provieded by Veterinary Regulatory Division - DAPH	Yes / No	Evidence documents attached. Yes / No	

Specifications for Nili Ravi semen
Deep Frozen Semen - 2,000 doses for AB division

S NO	SPECIFICATION	BIDDER RESPONSE (YES/NO)	EVIDENT DOCUMENTS / DETAILS ARE ATTACHED (YES / NO)	REMARK
1	Breed purity - 100% Nili Ravi	Yes / No	Yes / No	
2	Breed type -Dairy Buffalo Breeds	Yes / No	Yes / No	
3	Semen should be provided at least 2 unrelated bulls.	No of bulls :	Yes / No	
4	Donor bulls should be unrelated for at least four generations. History of the bull indicating names and herd registration, parents and all grand parents should be produced along with the tender document.	Unrelated : Yes / No	Pedigree sheets are available : Yes / No	
5	Dam's First standard lactation yield (305 days) not less than 2500kg of milk, butters fat ≥ 5.0%. (should provide the dam's first lactation yield with butter fat % of each bulls selected)	Yield ≥ 2500Kg : Yes / No Butter Fat ≥ 5.0% : Yes / No	Production records are available : Yes / No	
6	***progeny tested donor bulls are preferable*** , progeny tested in year 2021/2022. (Indicate the number of daughters tested with EBVs)	Yes / No		
7	The donor bulls should be free from fertility problems.	Yes / No	Yes / No	
8	Improver for type characters like foot and udder conformation	Yes / No	Yes / No	
9	Semen donors should be from registered herds with Official Certificates of Registration with Pedigree and Production records.	Registered : Yes / No	copies of official certificates of registration are attached : Yes / No	
10	Bulls should be free from all known genetic disorders like bovine leukocyte adhesion disease (BLAD), deficiency of uridinemono-phosphate synthetase(DUMPS), citrulinemia (deficiency of argino-succinate synthetase) and Factor XI.	Yes / No	Evidence documents attached. Yes / No	
11	All details including history and performance should be in English language.	Yes / NO		

B	Semen Details			
1	Country of semen production			
2	The semen should be in 0.25 ml deep frozen semen straws with easy identification of the breed and sire.	Yes / No	Evidence documents attached. Yes / No	
3	Ejaculated sperm concentration should be approximately $1000*10^{6}$/ml	Yes / No	Evidence documents attached. Yes / No	
4	Mass motility should be ≥ +++ (in 1 to 4 scale)	Yes / No	Evidence documents attached. Yes / No	
5	Dead sperm should not exceed 20-30% and the abnormal sperm in the first ejaculation should not exceed 15-20%	Yes / No	Evidence documents attached. Yes / No	
6	Semen should be evaluated on the basis of functional integrity of sperm membrane (Fresh semen collected from bulls should be subjected to the hypo osmotic swelling (HOS) test). The mean sperm positive to HOS test should be > 65%.	Yes / No	Evidence documents attached. Yes / No	
7	Post thawing forwarded progressive motility should be more than 50%.	Yes / No	Evidence documents attached. Yes / No	
8	frozen straw (each dose) should contain minimum 15 million sperms	Yes / No	Evidence documents attached. Yes / No	
9	Cold chain management of semen (LN) at - 196^{0}C up to dispatch is essetial	Yes / No	Evidence documents attached. Yes / No	
10	Disease free status - semen must be free from the diseases that are in the health protocol provieded by Veterinary Regulatory Division - DAPH	Yes / No	Evidence documents attached. Yes / No	

Specifications for Boer semen (Deep Frozen Semen – 2,000 doses for AB division)				
S NO	**SPECIFICATION**	**BIDDER RESPONSE (YES/NO)**	**EVIDENT DOCUMENTS / DETAILS ARE ATTACHED (YES / NO)**	**REMARK**
1	Breed purity - 100% Boer	Yes / No	Yes / No	
2	Breed type - Meat type Goat Breeds	Yes / No	Yes / No	
3	Semen should be provided at least 8 unrelated bucks.	No of bucks :	Yes / No	
4	Bucks should be unrelated for at least four generations. History of the buck indicating names and herd registration numbers of buck, parents and all grand parents should be produced along with the tender document.	Unrelated : Yes / No	Pedigree sheets are available : Yes / No	
5	The goats should be originated from the herds managed by registered goat breeders with Certificates of Registration, Pedigree and Production records in the respective country and Dam and Sire should be descended from pure breed Boer lines.	Yes / No	Information sheets annexed. Yes / No	
6	The donor bucks should be, free from fertility problems.	Yes / No	Information sheets annexed. Yes / No	
7	Bucks should be free from all known genetic disorders.	Yes / No	Information sheets annexed. Yes / No	
8	Growth & Weight Gain should be as following -- Birth Weight: Minimum 3.5 - 4.5 kg, Weaning Weight (90 days): ≥ 20 - 25 kg, Post-weaning Daily Gain: ≥ 200 - 250 g/day, Mature Buck Weight: ≥ 110 - 135 kg, Mature Doe Weight: ≥ 90 - 100 kg	Yes / No	Information sheets annexed. Yes / No	
9	Fertility & Kidding Performance should be as following -- Conception Rate: ≥ 75% under AI conditions, Kidding Rate: ≥ 1.8 - 2.3 kids per doe per kidding, Litter Size: Average 1.7 - 2.1 kids per birth, Kidding Interval: ≤ 8 months	Yes / No	Information sheets annexed. Yes / No	
10	Carcass Traits should be as following - Dressing Percentage: ≥ 50 - 55%, Meat-to-Bone Ratio: 4:1, Lean Meat % - ≥ 75%, Fat deposition subcutaneous fat thickness ≤ 3mm	Yes / No	Information sheets annexed. Yes / No	
11	All details including history and performance should be in English language.	Yes / No		

B	Semen Details			
1	Country of semen production			
2	The semen should be in 0.25 ml deep frozen semen straws with easy identification of the breed and sire.	Yes / No	Evidence documents attached. Yes / No	
3	Ejaculated sperm concentration should be approximately $1200*10^{6}$/ml	Yes / No	Evidence documents attached. Yes / No	
4	Mass motility should be ≥ +++ (in 1 to 4 scale)	Yes / No	Evidence documents attached. Yes / No	
5	Dead sperm should not exceed 20-30% and the abnormal sperm in the first ejaculation should not exceed 15-20%	Yes / No	Evidence documents attached. Yes / No	
6	Semen should be evaluated on the basis of functional integrity of sperm membrane (Fresh semen collected from bucks should be subjected to the hypo osmotic swelling (HOS) test). The mean sperm positive to HOS test should be > 65%.	Yes / No	Evidence documents attached. Yes / No	
7	Post thawing forwarded progressive motility should be more than 50%.	Yes / No	Evidence documents attached. Yes / No	
8	frozen straw (each dose) should contain minimum 80 million sperms	Yes / No	Evidence documents attached. Yes / No	
9	Cold chain management of semen (LN) at - 196^{0} C up to dispatch is essetial	Yes / No	Evidence documents attached. Yes / No	
10	Disease free status - semen must be free from the diseases that are in the health protocol provieded by Veterinary Regulatory Division - DAPH	Yes / No	Evidence documents attached. Yes / No	