# 2. Technical Specifications

#### Specification for Jersy Embryos

	Requirement	Please mention agreed/not agreed	Evident Document/ details are attached (Yes/No)	Remarks
16	Embryo Quality Standards	presenta a la maria de la composición del composición de la compos		
	Grading: Excellent (or A Grade) -			
	Embryos will exhibit exceptional			
	morphology with consistent cell size			
	distribution and a well-defined			
	blastocoel cavity			
	Developmental Stage: Blastocyst stage			
	embryos are preferred for their			
	demonstrated superior viability			
	following cryopreservation.			
	Age: 7 Days Old			
2.	Donor Dam Specifications	ener alleber skilpingssene. Lineraler projekt senerak 24		
	Production Performance: Dams must			
	possess Estimated Breeding Values			
	(EBVs) with high reliability that			
	significantly exceed breed averages.			
	Specific EBV thresholds should be			
	tailored to individual breeding objectives			
	(e.g., Milk yield $\geq$ +350 kg, Fat yield $\geq$			
	+30 kg, Protein yield ≥ +25 kg).			
	Health Certification: Dams and donor			
	herds must be certified free of diseases			
	relevant to the importing country and			
	maintain strict biosecurity and herd			
	health protocols.		Table on the state of the state	
	Conformation: Dams must possess			
	excellent udder and feet & leg			
	conformation, substantiated by:			

	-Superior linear type scores within key			
	udder, feet, and leg composite traits.			
	-Favorable classification reports, if			
	available.			
	Reproductive History: Preference for			
	dams with a proven track record of			
	successful pregnancies and trouble-free			
	calvings.		:	
3	Sire Specifications			
	Genetic Merit: Sires must exhibit EBVs			
	(with high reliability) that meet or			
	exceed breeding objectives for	·		
	production and conformation traits.	·		
	Type Improvement: Emphasis on sires			
	with a demonstrated ability to transmit			
'	superior udder, feet, and leg			
	conformation.			
	Health Certification: Sires must be			
	certified free of known deleterious			
	genetic defects, including but not limited		:	
	to BLAD, DUMPS, Citrullinemia, and			
	Factor XI. Screening for additional			
	genetic conditions is strongly			
	recommended.			
4	Pedigree and Documentation	in the strain and the	deep plants and	
	Lineage: Embryos must derive from			
	pedigrees demonstrating a minimum of			
	four generations without common			
	ancestors for both the dam and sire.			
	Comprehensive Documentation (dam,			
	sire, grandparents):			
٠.	-Names and official herd registration			
	numbers.			
	-Production records (lactation yields,			
	components) and corresponding EBVs			
	with reliability values.			

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.	-Linear type scores, classification		!	
· [	reports, or relevant type evaluations.			
	-Health certifications and genetic testing			* · · · · · · · · · · · · · · · · · · ·
	results.	mezicielencik valianiko a karakkirika.		
5	Cryopreservation Specifications:  Type of Preservation: Deep Frozen			
	Freezing Medium: Ethylene Glycol - A			<u> </u>
	well-established cryoprotectant proven			
	effective for long-term storage of bovine			
	embryos.			
	Straw Size: 0.25 ml Mini Straw -			
	Standard industry format for efficient			
			:	
	embryo storage and handling.			
	Storage and Transport: Liquid			
	Nitrogen (-196°C) - Essential for			
	maintaining embryo viability during			
	storage and transportation.			
6	Additional Considerations			
	Disease-Free Status: All embryos will			
	be accompanied by a comprehensive			
	health certificate from a reputable			
	veterinary laboratory. This certificate			
	will verify freedom from major			
	infectious diseases and genetic			
	abnormalities and will ensure			
	compliance with all disease-free			
	requirements outlined in the health			
	protocol established by the country's			
	Veterinary Regulatory Division.			
	Herd Registration: Donors must			
	originate from officially registered			
	herds. Suppliers must provide			
	Certificates of Registration, pedigrees,		•	
	and production records.			
	Language: All documentation must be			*
1	provided in English.			

### Specifications for Friesian Embryos

	Requirement	Please mention agreed/not agreed	Evident Document/ details are attached (Yes/No)	Remarks
1	Embrye Quality Standards			
	Grading: Excellent (or A Grade) -	anti-mentalika in in industria in a series in a se		FCCU. 10 THE \$ 10 ST 11 PROPERTY STEEDS
	Embryos will exhibit exceptional		:	
	morphology with consistent cell size			
	distribution and a well-defined			
	blastocoel cavity			
	Developmental Stage: Blastocyst stage	-		
	embryos are preferred for their			
	demonstrated superior viability			
	following cryopreservation.			1
	Age: 7 Days Old			
2	Donor Dam Specifications			
JA. 224 - 1 NG-1	Production Performance: Dams must	Haranas matamban sakat matamban mili		
	possess Estimated Breeding Values			
	(EBVs) with high reliability that			
	significantly exceed breed averages.			
	Specific EBV thresholds should be			
	tailored to individual breeding			
	objectives (e.g., Milk yield ≥ +500 kg,			
	Fat yield $\geq +25$ kg, Protein yield $\geq +20$			
	kg).			
	Health Certification: Dams and donor			
	herds must be certified free of diseases			1
	relevant to the importing country and			
	maintain strict biosecurity and herd		· -	
	health protocols.			

	Conformation: Dams must possess	•		
	excellent udder and feet & leg			
	conformation, substantiated by:		·	
	-Superior linear type scores within key			
	udder, feet, and leg composite traits.			
ŀ	-Favorable classification reports, if			
	available.			
	Reproductive History: Preference for			
	dams with a proven track record of			
	successful pregnancies and trouble-free			·
	calvings.			
3	Sire Specifications	program in the contract of the		
	Genetic Merit: Sires must exhibit EBVs	37-73		
	(with high reliability) aligning with			
	breeding objectives for production traits,			
	especially milk yield.			
	Type Improvement: Emphasis on sires		,	
	with a demonstrated ability to transmit			
	superior udder, feet, and leg			
	conformation.			
	Health Certification: Certified free of		-	·
	known deleterious genetic defects,			
	including but not limited to BLAD,			
	DUMPS, Citrullinemia, Factor XI,			
	CVM, and Brachyspina. Additional			
	screening is strongly recommended.		·	
4	Pedigree and Documentation			
	Lineage: Embryos must derive from			######################################
	pedigrees demonstrating a minimum of			
	four generations without common			
1	ancestors for both the dam and sire.		,	
	Comprehensive Documentation (dam,			
	sire, grandparents):			
	-Names and official herd registration			
	numbers.			·
<u> </u>		<u> </u>		L

	· ·			
	-Production records (lactation yields,			
	components) and corresponding EBVs			·
	with reliability values.			
	-Linear type scores, classification			
	reports, or relevant type evaluations.			
	-Health certifications and genetic testing			
	results.			
5	Cryopreservation Specifications:  Type of Preservation: Deep Frozen			
	Freezing Medium: Ethylene Glycol - A	·		
	well-established cryoprotectant proven			
	effective for long-term storage of bovine			
	embryos.			
	Straw Size: 0.25 ml Mini Straw -			
	Standard industry format for efficient			
	embryo storage and handling.			
			-	
	Nitrogen (-196°C) - Essential for		Accounted to the state of	
	maintaining embryo viability during			
	storage and transportation.	verkanya maja sigla kabasasan 1976.		
6	Additional Considerations			
	Disease-Free Status: All embryos will	·		
	be accompanied by a comprehensive			
	health certificate from a reputable			
	veterinary laboratory. This certificate			
	will verify freedom from major			
	infectious diseases and genetic			
	abnormalities and will ensure			
	compliance with all disease-free	1		
	requirements outlined in the health			
	protocol established by the country's			
	Veterinary Regulatory Division.			
	Herd Registration: Donors must			
	originate from officially registered		,	
	herds. Suppliers must provide			

Certificates of Registration, pedigrees,		
and production records.	•	
Language: All documentation must be		
provided in English.		

## Specifications for Sahiwal Embryos

	Requirement	Please mention agreed/not agreed	Evident Document/ details are attached (Yes/No)	Remarks
( <b>1</b> 48)	Embryo Quality Standards			
	Grading: Excellent (or A Grade) -			
	Embryos will exhibit exceptional			
	morphology with consistent cell size			
	distribution and a well-defined			
	blastocoel cavity			
	Developmental Stage: Blastocyst stage			
	embryos are preferred for their	-		
	demonstrated superior viability			
	following cryopreservation.			
	Age: 7 Days Old			
2	Donor Dam Specifications			
	Production Performance: Dams must			
	possess Estimated Breeding Values			
	(EBVs) with high reliability that			
	significantly exceed breed averages.	,		٠.
	Specific EBV thresholds should be			
	tailored to individual breeding			
-	objectives (e.g., Milk yield ≥ +500 kg,			
	Fat yield $\geq \pm 25$ kg, Protein yield $\geq \pm 20$			
	kg).			
	Health Certification: Dams and donor			
	herds must be certified free of diseases			
	relevant to the importing country and			
	maintain strict biosecurity and herd			
·	health protocols.	e dependent en		
				·
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	Conformation: Dams must possess			
	excellent udder and feet & leg		ı	_
	conformation, substantiated by:			
	-Superior linear type scores within key			
!	udder, feet, and leg composite traits.			·
	-Favorable classification reports, if			
	available.			
	Heat Tolerance: Emphasize dams with			
	a demonstrated ability to produce and		-	
	thrive under high heat-stress conditions.			
	This may be evidenced by:			
	Production records are maintained in hot			
	climates.			
	EBVs or indices specifically addressing			
	heat tolerance, if available.			
	Parasite Resistance: If available,			.:
	prioritize dams with favorable EBVs or			
	indices for parasite resistance,			
	capitalizing on Sahiwai's known			
	resilience.			
-	Reproductive History: Preference for			
	dams with a proven track record of			
	successful pregnancies and trouble-free			
	calvings.			
3.	Sne Specifications	e property in a draw Programme and the		
	Genetic Merit: Sires must exhibit EBVs			
	(with high reliability) aligning with			
	breeding objectives for production traits,			
	especially milk yield.			·
	Type Improvement: Emphasis on sires			
	with a demonstrated ability to transmit		-	
.	superior udder, feet, and leg			
	conformation.			
	Health Certification: Certified free of			
1	known deleterious genetic defects,			
	including but not limited to BLAD,			
L				

	DUMPS, Citrullinemia, Factor XI,			
	CVM, and Brachyspina. Additional			
	screening is strongly recommended.			
4	Pedigree and Documentation		ytulkana pilon ni as	
NSE SE	Lineage: Embryos must derive from	<b>社会社的基本的基础。在2010年</b>		rica i Heyrtha at
	pedigrees demonstrating a minimum of			. *
	four generations without common			
	ancestors for both the dam and sire.			
	Comprehensive Documentation (dam,			
	sire, grandparents):			
	-Names and official herd registration			
	numbers.			
	-Production records (lactation yields,			
	components) and corresponding EBVs	1		
	with reliability values.			
	-Linear type scores, classification			
	reports, or relevant type evaluations.			
	-Health certifications and genetic testing			
	results.	·		
5	Cryopreservation Specifications:			
	Type of Preservation: Deep Frozen	下公司的一条条。由于1919年大学(Andrit 1918年)		
	Freezing Medium: Ethylene Glycol - A		·	
	well-established cryoprotectant proven			
	effective for long-term storage of bovine			
	embryos.		·	
	Straw Size: 0.25 ml Mini Straw -			
	Standard industry format for efficient			
	embryo storage and handling.			
	Storage and Transport: Liquid		· · · · · · · · · · · · · · · · · · ·	
	Nitrogen (-196°C) - Essential for			
	maintaining embryo viability during			
	storage and transportation.			
6	Additional Considerations			
	Disease-Free Status: All embryos will	· · · · · · · · · · · · · · · · · · ·		
	be accompanied by a comprehensive			
	health certificate from a reputable			

veterinary laboratory. This certificate			
will verify freedom from major		:	-
infectious diseases and genetic	3		
abnormalities and will ensure			
compliance with all disease-free			
requirements outlined in the health			
protocol established by the country's			•
Veterinary Regulatory Division.			
Herd Registration: Donors must			, , ,
originate from officially registered	_		
herds. Suppliers must provide			
Certificates of Registration, pedigrees,			:
and production records.			
Language: All documentation must be			
provided in English.			

#### **Specifications for Gir Embryos**

	Requirement	Please mention agreed/not agreed	Evident Document/ details are attached (Yes/No)	Remarks
1	Embryo Quality Standards			
	Grading: Excellent (or A Grade) -			
	Embryos will exhibit exceptional			
	morphology with consistent cell size			
	distribution and a well-defined			
	blastocoel cavity	-		
	Developmental Stage: Blastocyst stage		·	
	embryos are preferred for their			
	demonstrated superior viability			
	following cryopreservation.			
	Age: 7 Days Old			
2	Ponor Pair Specifications			
	Production Performance: Dams must			
	possess Estimated Breeding Values			
	(EBVs) with high reliability that			
	significantly exceed breed averages.		-	
-	Specific EBV thresholds should be			
	tailored to individual breeding			
	objectives (e.g., Milk yield ≥ +500 kg,			
	Fat yield $\geq +25$ kg. Protein yield $\geq +20$			
	kg).			
	Health Certification: Dams and donor			
	herds must be certified free of diseases			
	relevant to the importing country and			
	maintain strict biosecurity and herd			
	health protocols.			

	Conformation: Dams must possess			
	excellent udder and feet & leg			
	conformation, substantiated by:			
	-Superior linear type scores within key	~		·
	udder, feet, and leg composite traits.			
	-Favorable classification reports, if			
	available.			
	Heat Tolerance: Emphasize dams with			
	a demonstrated ability to produce and			·
	thrive under high heat-stress conditions.			
	This may be evidenced by:			
	Production records are maintained in hot			
	climates.			
	EBVs or indices specifically addressing			
	heat tolerance, if available.			·
	Parasite Resistance: If available,			
	prioritize dams with favorable EBVs or			
	indices for parasite resistance,			
	capitalizing on Sahiwal's known			
	resilience.			
	Reproductive History: Preference for			
	dams with a proven track record of			
	successful pregnancies and trouble-free			
	calvings.			
3.	Sire Specifications		en seestaales e Pen ekendenkan	entre de production Little al estad divinis
	Genetic Merit: Sires must exhibit EBVs			
 	(with high reliability) aligning with			
	breeding objectives for production traits,			
	especially milk yield.			
	Type Improvement: Emphasis on sires			
ļ	with a demonstrated ability to transmit			
•	superior udder, feet, and leg			
<u> </u>	conformation.			
	Health Certification: Certified free of		1	
	known deleterious genetic defects,			
	including but not limited to BLAD.			

[ '	and Brachyspina. Additional		1	•
screen				1
.	ng is strongly recommended.			
4 Pedig	ee and Documentation			
Linea	e: Embryos must derive from			
pedigr	ees demonstrating a minimum of			
four	generations without common			
ancest	ors for both the dam and sire.			
Comp	rehensive Documentation (dam,			
sire, g	andparents):			
-Namo	s and official herd registration			
numbe	rs.	7		
-Produ	ction records (lactation yields,			
compo	nents) and corresponding EBVs			
with re	liability values.			
-Linea	type scores, classification			
reports	, or relevant type evaluations.			
-Healt	certifications and genetic testing			
results	•		A CONTRACTOR OF THE CONTRACTOR	
1.05時期運輸網羅用電	reservation Specifications:			
Туре	f Preservation: Deep Frozen			
Freezi	ng Medium: Ethylene Glycol - A			
well-e	tablished cryoprotectant proven			
effecti	re for long-term storage of bovine			
embry	•			
Straw	Size: 0.25 ml Mini Straw -			
Standa	rd industry format for efficient			
embry	storage and handling.			
Storag	e and Transport: Liquid			
Nitrog	en (-196°C) - Essential for			٠.
mainta	ning embryo viability during			
storage	and transportation.			
6 Additi	mal Considerations			
Diseas	e-Free Status: All embryos will		144.44.14.14.14.14.14.14.14.14.14.14.14.	
be acc	ompanied by a comprehensive			
health	certificate from a reputable			

veterinary laboratory. This certificate			
will verify freedom from major			
infectious diseases and genetic			
abnormalities and will ensure			
compliance with all disease-free			
requirements outlined in the health			
protocol established by the country's			
Veterinary Regulatory Division.			
Herd Registration: Donors must			
originate from officially registered			
herds. Suppliers must provide			
Certificates of Registration, pedigrees,			·
and production records.			
Language: All documentation must be			
provided in English.	•		
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