RPF-II

(PROFORMA FOR SUBMISSION OF ANNUAL PROGRESS REPORT OF RESEARCH PROJECTS)

PART-I : GENERAL INFORMATION

600 Project Code

6001 Institute Project Code No. : GGB-1.09

6002 ICAR Project Code No.

6003 Name of the Institute : Central Institute for Research on goats, Makhdoom.

Name of the Division : Division of Genetics & Breeding (AICRP on Goats)

6011 Name and address of Institute: Central Institute for Research on goats, Makhdoom, Farah-Mathura (U.P.) 281122.

6012 Name of Division/Section :Division of Genetics & Breeding

6013 Location of the project :Central Institute for Research on Goats, Makhdoom

602 Project title :All India Coordinated Research Project on Goat Improvement (Jamunapari goat)

603 Priority area : Genetic Improvement and Conservation of Jamunapari goats

6031 Research approach: Applied Res./Basic Res./Process/Transfer of Tech. or Tech. Develo.

01 02 **03** **04**

604 Specific area : Selection and Production of elite Jamunapari goats.

605 Duration of project : XIth plan period

6051 Date of start of project : 1993

6052 Likely date of completion of project : Continuation for 11th Five Year Plan.

6053 Period for which report submitted : 2007 – 2008

606 Total cost of the project :

6061 Expenditure to date :

607 **Summary Achievements:**

The opening and closing balance of flock were 549 and 634 (Table 1). Data on body weight at birth, 3, 6, 9 and 12 months of age, 90 days, 140 days milk and Total lactation Yield and reproductive performance traits were recorded during 2002–2008 and subjected to least squares analysis. Genetic parameters were estimated by half-sib analysis for body weight at various ages and milk yield traits. Abnormal records were excluded from the analysis. Average least squares means of body weights of kids at birth, 3, 6, 9 and 12 months of age were 3.16±0.01, 11.45±0.07, 15.51±0.09, 20.87±0.13 and 26.82±0.13 kg, respectively during the period of 2002 to 2008. Whereas, corresponding average least squares means of body weights of kids for 2007 were 3.28±0.03, 11.99±0.14, 16.41±0.22, 21.54±0.38 and 27.06±0.38 kg, respectively (Table 2). The average least squares means of body weights of kids at birth and 3 months of age for the year 2008 were 3.21±0.04 and 13.45±0.33kg, respectively. Year and season of kidding, type of birth, sex of kid, parity and weights of dam at kidding have significantly affected the body weights under study (Table 3). Kids born as single and males were born with higher birth weight and maintained their superiority up to 12 month of age. Parity has significantly influenced body weight at 3, 6 and 12 months of age however the magnitude of effect was low. The heritability estimates for body weight at birth, 3, 6, 9 and 12 months of age were 0.272 ±0.068, 0.169±0.076, 0.230±0.064, 0.213±0.003 and 0.327±0.073 respectively (Table). Average milk yield in 90 days, 140 days, total lactation yield and total lactation length for the period from 2002-2008 were 92.39±0.95, 127.42±1.33, 136.17±1.76 liters and 175.08±1.43 days, respectively; whereas corresponding estimates for the year 2007 were 103.11±2.04, 143.68±2.94, 152.78±4.17 liters and 169.98±3.09days, respectively (Table 5). Year, season of kidding and does weight at kidding were significantly influenced the all milk performance traits (Table 6). Goats kidded in winter produced ($P<0.05$) higher milk yield than those, which kidded in autumn and spring. Significantly ($P<0.05$) lower lactation length was observed of does, which kidded in summer. Effect of type of birth was non significant on milk performance and lactation length. The performance of milk production traits and lactation length's decreases significantly after 5th parity. The observed additive genetic variability for milk production traits it was low. Selection differential on the basis of bucks superiority over flock average was 6.4 kg for body weight and 26.6 lit for milk yield (Table 7). Sire index value estimated on the basis of sum of 9 months body weight of individual animal and their 90 days milk yield of the born parity (Table 8). The average age at first kidding, weight at first kidding and kidding interval for the year 2007-08 were 754±21 days, 32.6±0.5 kg and 323±5 days, respectively. The Multiple birth rates and litter size were 34.2% and 134%, respectively (Table 9 &10). Kidding percentages on the basis of does available and does tupped were 78.5 and 103.17% respectively (Table 11). The average body weight of male kids under complete feed (feed lot) at 9 months of age, average weight gain (kg).

average daily weight gains during 3-9 months (gm/d), carcass weight, dressing percentage (empty weight) were 27.65±1.51kg, 15.15±1.06, 84.17±5.92, 12.23±1.62 and 55.4±1.67% respectively, for the group fed with Arhar pellet. Corresponding means were 24.68±2.14kg, 11.43±1.71kg, 63.51±9.53, 11.36↑12.67kg and 55.43±3.08, respectively for the group fed with Arhar mess. The corresponding means for the group of kids fed with Gwar pellet were 25.85±1.31kg, 13.01±0.86, 72.31±4.78, 11.76±0.12 and 54.56±1.67% respectively, and the corresponding means for Gwar mess were 24.76±1.67 kg, 10.21±0.85 kg, 11.97±1.09 and 55.33±1.69 respectively.

The population growth rate during the year was 100.99 (Table 13). The overall survivability of the flock was 93% (Table 12). Thirty-three males and twenty-two females were supplied to farmers, SAUs, NGOs and other research institutions for improvement and conservation of Jamunapari goats under field conditions (Table 1).

Key Words : Jamunapari, selection, bucks, improvement.

PART-II : INVESTIGATOR PROFILE

(Please identify clearly changes, if any in project personnel)

610	Principal Investigator	:
6101	Name	: Dr. M.K. Singh
6102	Designation	: Senior Scientist
6103	Division/Section	: Jamunapari Farm Unit, AICRP on Goats
6104	Location	: C.I.R.G., Makhdoom
6105	Institute address	: Central Institute for Research on Goats, Makhdoom, P.O. Farah-281122, Mathura, U.P.

611	Co-investigator	:
6111	Name	: Dr. H A Tiwari
6112	Designation	: Sr. V O
6113	Division/Section	: Division of Goat Health
6114	Location	: C.I.R.G., Makhdoom.
6115	Institute address	:Central Institute for Research on Goats, Makhdoom, Farah-281122, Mathura, U.P.

612	Co-investigator	:
6121	Name	: T K Dutta
6122	Designation	: Sr. Scientist
6123	Division/Section	: Division of NFR&PT
6124	Location	: C.I.R.G., Makhdoom.
6125	Institute address	:Central Institute for Research on Goats, Makhdoom, P.O. Farah-281122, Mathura, U.P.

6223 Process/Product/Technology/Developed during the year.

Fifty five superior germplasm (33 males and 22 females) of Jamunapari goats were supplied to farmers, SAUs, NGOs, State Animal Husbandry for improvement and conservation of breed under field conditions. Animals in the form of data, blood, milk and dung were utilized for various ongoing research programmes of the Institute and other sister institute.

6224 Utility of results obtained so far: Information obtained are useful in

(a) Selection of bucks

(b) Development of breeding plan and policy for commercial goat farming and field programmes, respectively.

(c) In determining appropriate ration, composition and slaughter age.

(d) In-situ and Ex-situ conservation of breed.

623 Publications and Material Development:

6231 Research papers : Three

6232 Popular articles :

6233 Reports : Two

6234 Seminars and workshops (relevant to the project) in which the Scientists have participated. : Two

624 Infrastructure facilities developed:

1. Twenty four animals of Jamunapari goats were purchased from field to keep inbreeding under safer limit.
2. Two Pits for dung storage.
3. Individual Feeder- 30
4. Portable individual cages- 32
5. Kid waterar with inverted water pot- 03
6. Kid water barrel type- 05
7. Kid feeder with roof- 13
8. Hexagonal feeder- 05
9. Rectangular feeder- 02

PART-III: TECHNICAL DETAIS

620 **Introduction and objectives**:

Jamunapari is one of the important dual-purpose goat breed of India. Though these goats have greater recognition for milk production, but they are also important for meat production. Natural habitat of Jamunapari breed is ravines of Jamuna, Chambal and Kawari rivers with adequate browse material. Jamunapari goats were brought to Central Institute for Research on Goats in 1982 and again added in 1988 and 1997. Since 1985 this project on genetic improvement of this breed are being in operation. In 1993 during VIII Five Year Plan, AICRP on Jamunapari unit was sanctioned vide letter F.No.5 (1)/93 ASR II dated 22.7.1993 for the period 1992-93 to 1996-97and continued in IXth and Xth Plan. The project aims to improve of milk production and body weight through use of selected bucks and production of elite bucks for field improvement programme.

621

6201 **Immediate objectives** :

1. To estimate genetic and phenotypic parameters pertaining to meat and milk production traits and selection of males.
2. To estimate breeding value of sires.
3. To estimate genetic progress in meat and milk production traits attained through selection.
4. To establish an elite germ plasm centre of superior bucks (In-Situ/Ex. Situ) and extensive use of superior sires for improving productivity of goats in farmer's flocks.

6202 Long term objectives: Genetic Improvement of Jamunapari goats and their conservation

6203 Specific objectives: Enhancement of Genetic potential of Jamunapari goats through effective selection.

621 Project Technical profile:

6211 Technical programme: **Enclosed**

(Indicate briefly plan of procedure, techniques, instruments and special materials, organisms, Special environment etc.)

622 Progress of work: **As per objectives**

6221 Achievements in terms of targets fixed for each activity: Target achieved.

6222 Questions – Answered

PART-IV : PROJECT EXPENDITURE

(Summary)

Year: 2007 – 2008

630 Recurring Expenditure: Expenditure statement is maintained by the administration.

6301 Salaries : (Designation with pay scale)

i) Scientific

ii) Technical

iii) Supporting

iv) Wages

Sub Total

6302 i) Consumables

ii) Chemicals

iii) Glasswares

iv) Others

Sub Total

6303 Travel

6304 Miscellaneous

(Other costs)

6305 ---

Sub Total (Recurring)

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631 Non-Recurring Expenditure (Equipments)

i) Expenditure statement is maintained by the administration

ii)

iii)

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632 Total:
(630 & 631)

Signature of the Project Investigator MK Singh 17/05/08

Co-investigators 1.

2.

Signature & Comments of the Head/ I/C, AICRP on Goats:

The Progress of the Project is as per technical programme and workout put is commendable.

17/05/08
I/C P.C (G)

Signature & Comments of the Director

The Project progressed most satisfactorily as per the Technical Programme. The data obtained and results reported were really excellent as was evident by the research papers submitted / published by the component workers.

25/6/08

Table – 1: Flock Statistics – Jamunapari Goats (01.4.2007 to 31.03.2008)

	Open Balance 1.4.07	Addition				Reduction								Closing Balance 31-03-08
		Birth	Purchase	Draft	Total	Death	Slaughter	Sold	Culled	Transfer		Draft	Total	
											E			
MALE														
0 – 1 M	16	127	-	-	143	06	-	-	-	-	-	135	141	02
1 – 3 M	40	-	03	135	178	01	-	-	-	-	-	111	112	66
3 – 6 M	41	-	02	111	154	04	-	-	03	-	-	90	97	57
6 – 12 M	17	-	-	90	107	-	12	01	04	-	-	89	106	01
12 – 18 M	11	-	-	89	100	01	12	25	03	01	-	08	50	50
Adult	23	-	03	08	34	03	-	07	03	-	03	-	16	18
Total	**148**	**127**	**08**	**433**	**716**	**15**	**24**	**33**	**13**	**01**	**03**	**433**	**522**	**194**
FEMALE														
0 – 1 M	25	133	-	-	158	12	-	-	-	-	-	144	156	02
1 – 3 M	36	-	01	144	181	01	-	-	-	-	-	115	116	65
3 – 6 M	38	-	01	115	154	07	-	-	07	-	-	88	102	52
6 – 12 M	32	-	02	88	122	05	-	-	02	-	-	109	116	06
12 – 18 M	48	-	-	109	157	-	-	05	-	-	-	78	83	74
Adult	222	-	11	78	311	19	-	17	28	05	01	-	70	241
Total	**401**	**133**	**15**	**534**	**1083**	**44**	-	**22**	**37**	**05**	**01**	**534**	**643**	**440**
G. Total	**549**	**260**	**23**	**967**	**1799**	**59**	**24**	**55**	**50**	**06**	**04**	**967**	**1165**	**634**

Table -2: Least squares means for body weight at different ages in Jamunapari goats

Factor	Birth		3 month		6month		9 month		12 month	
Year	No	Mean	No	Mean	No	Mean	No	Mean	No	Mean
Overall mean	1793	3.16±0.01	1557	11.45±0.01	1387	15.51±0.09	1121	20.87±0.13	980	26.82±0.13
Year										
2002	271	3.03±0.03	235	11.68±0.13	218	16.39±0.21	180	22.57±0.27	156	28.96±0.28
2003	279	2.90±0.03	268	10.24±0.12	239	15.36±0.21	177	21.91±0.28	130	27.82±0.33
2004	310	3.28±0.03	297	11.47±0.12	275	16.45±0.19	262	22.16±0.23	242	28.21±0.23
2005	277	3.31±0.03	268	11.22±0.12	261	14.53±0.19	224	19.31±0.25	199	24.70±0.26
2006	262	3.11±0.03	245	10.46±0.13	219	15.01±0.19	190	20.11±0.25	169	25.75±0.26
2007	243	3.28±0.03	208	11.99±0.14	175	16.41±0.22	88	21.54±0.38	84	27.06±0.38
2008	151	3.21±0.04	36	13.45±0.33	-	-	-	-		
Season										
1	545	3.03±0.02	511	12.09±0.10	472	16.96±0.14	386	22.42±0.20	361	27.63±0.20
2	856	3.28±0.02	707	11.43±0.08	627	15.22±0.13	509	20.33±0.17	411	26.47±0.19
3	392	3.19±0.02	339	10.83±0.12	288	14.34±0.18	226	19.84±0.25	208	25.47±0.25
TOB										
1	834	3.48±0.02	737	12.24±0.09	660	16.37±0.13	530	21.53±0.17	458	27.10±0.18
2	959	2.85±0.02	820	10.66±0.08	727	14.64±0.12	591	20.20±0.16	522	25.93±0.17
Sex										
1	891	3.30±0.02	752	11.82±0.09	660	16.37±0.13	516	22.51±0.17	424	28.77±0.18
2	902	3.03±0.02	805	11.08±0.08	727	14.65±0.12	605	19.22±0.16	556	24.27±0.16
Parity										
1	565	3.12±0.02	473	11.23±0.11	423	15.31±0.15	318	20.79±0.21	283	26.44±0.21
2	389	3.19±0.03	338	11.46±0.11	293	15.60±0.17	241	21.02±0.23	208	26.88±0.24
3	281	3.18±0.03	238	11.73±0.13	220	15.81±0.19	175	20.95±0.26	149	26.49±0.28
4	207	3.17±0.03	187	11.39±0.15	166	15.56±0.22	144	20.85±0.29	118	26.38±0.31
5	258	3.17±0.03	236	11.31±0.14	206	15.32±0.27	181	21.02±0.27	168	26.61±0.28
6	93	3.14±0.05	85	11.59±0.22	79	15.47±0.34	62	20.57±0.46	54	26.31±0.48
Reg		0.030±0.002		0.083±0.008		0.897±0.013	0.068±0.018		0.083±0.019	

Table –3: ANOVA for body weight at different ages in Jamunapari goats

Source	Birth		3M		6M		9M		12M	
	DF	MSS	DF	Mss	DF	MSS	DF	MSS	DF	MSS
Year	6	30.08	6	143.04	6	315.91	6	544.32	6	915.56
Season	2	33.45	2	149.10	2	630.0	2	544.00	2	255.43
TOB	1	592.05	1	862.91	1	923.94	1	436.96	1	291.48
Sex	1	115.7	1	209.84	1	997.03	1	2948.8	1	4707.30
Parity	5	0.997	5	8.41	5	8.71	5	3.09	5	6.49
Reg	1	200.87	1	347.40	1	356.96	1	167.60	1	207.04

Table – 4: Heritability, genetic and phenotypic correlations among body weights at different ages in Jamunapari goats.

Traits	BW	3 M	6 M	9 M	12 M
BWT	**0.272±0.068**	0.39	0.307	0.266	0.230
3 M	0.242±0.210	**0.169±0.071**	0.714	0.577	0.472
6 M	0.07±0.204	0.329±0.02.3	**0.230±0.064**	0.818	0.680
9 M	0.173±0.202	0.372±0.202	0.905±0.053	**0.213±0.003**	0.819
12 M	0.163±0.179	0.288±0.192	0.66±0.109	0.887	**0.327±0.073**

Table -5: Least Squares means for milk yield traits in Jamunapari goats

	90 DMY		140 DMY		TMY		LL	
	No	Mean	No	Mean	No	Mean	No	Mean
Overall mean	1188	92.39±0.95	1012	127.42±1.33	1169	136.17±1.76	1169	175.08±1.43
Year								
2002	178	82.32±1.94	150	115.95±2.89	195	125.75±3.70	195	178.14±3.01
2003	197	90.26±1.87	182	127.36±2.68	209	136.16±3.65	209	168.09±2.96
2004	213	105.16±1.77	207	149.19±2.46	211	166.45±3.55	211	199.09±2.89
2005	188	95.67±1.96	157	134.64±2.95	204	132.45±3.78	204	153.36±3.07
2006	165	85.61±2.03	160	110.70±2.79	187	123.45±3.78	187	184.92±3.02
2007	171	103.11±2.04	156	143.68±2.94	163	152.77±4.17	163	169.86±3.09
2008	76	101.10±3.05	-	-	-	-	-	-
Season								
1	418	88.12±1.41	370	123.34±1.96	429	133.91±2.63	429	178.94±2.14
2	519	98.89±1.22	416	139.51±1.85	475	149.85±2.51	475	177.50±2.03
3	251	87.47±1.76	226	119.40±2.45	265	124.75±3.30	265	168.80±2.68
TOB								
1	748	91.41±1.12	653	126.77±1.57	756	135.25±2.09	756	174.73±1.70
2	440	91.38±1.34	359	128.07±1.96	413	137.09±2.64	413	175.43±2.14
Parity								
1	383	89.68±1.43	334	123.69±2.06	375	140.66±2.85	375	185.25±2.31
2	274	96.67±1.58	229	135.24±2.32	262	147.21±3.17	262	179.77±2.58
3	188	92.49±1.89	159	127.07±2.77	179	138.09±3.84	179	177.15±3.12
4	131	93.63±2.26	123	129.83±3.14	135	140.72±4.37	135	180.06±3.56
5	88	91.39±2.78	74	128.82±4.07	92	132.50±5.35	92	168.74±4.34
6	124	85.15±2.37	93	119.86±3.70	126	117.84±4.62	126	159.51±3.76
Reg. WDK	1	1.310±0.133	1	1.487±0.196	1	2.197±0.264	1	0.938±0.214

Table –6: ANOVA for body weight at different ages in Jamunapari goats

Source	DF	90d MY	140d MY	TMY	LL
		MSS	MSS	MSS	MSS
Year	5	27108.3	70277.6	143319	48413.91
Season	2	15158.8	37002.9	57858	8382.94
TOB	1	0.27	353.6	831	117.96
Parity	5	2738.02	4884.0	14610	11908.40
Reg	1	60449.0	66199.4	172258	31401.93

Table 7: Heritability, Genetic and Phenotypic correlations amongst milk production traits in Jamunapari goats.

Traits	90 DMY	140 DMY	TMY	LL
90 DMY	**0.0987±0.062**	0.984	0.894	0.213
140 DMY	0.976±0.092	**0.124±0.089**	0.890	0.274
TMY	0.903±0.207	0.978±0.071	**0.119±0.093**	0.636
LL	0.961±0.594	0.983±0.570	0.7±0.77	**0.077±0.065**

Table – 8 Selection differential of selected males for 9 M body weight (kg) and 90 days milk yield (lit) of their dams in 2005-06

Particulars	9 M body weights (kg)	Dam's 90 days milk yield (Lit)
Selected Males (Mean)	27.4	119
Population (Mean)	21.0	92.4
Selection differential	6.4	26.6

Table – 9: Breeding Value of Bucks and their Ranking (2007)

Sl. No.	Sire No.	Sire index	Rank
1.	5287	25.24	1
2	5271	19.45	2
3	5283	19.07	3
4.	5401	18.80	5
5	5275	18.33	4
6.	5274	17.82	6
7.	5545	15.02	7
8.	5569	14.25	8
9.	5487	13.02	9
10.	5703	13.00	10

Table – 10: Reproductive Performance of Jamunapari Goats

SN	Traits	2003	2004	2005	2006	2007
1.	AFK (d)	775±27 (60)	805±32 (58)	767±24 (56)	739±29 (53)	754±21 (113)
2	WFK (kg)	34.4±0.27 (68)	38.0±0.30 (64)	37.8±0.35 (55)	34.2±0.3 (58)	32.6±0.5 (113)
3.	KI (d)	382±13 (150)	379±11 (153)	338±11 (119)	321±13 (81)	323±5 (146)
3	Kidding rate (DT)	115	115	126	137	134
4	Litter Size (%)	134	142	138.5	142	134
5	Multiple births (%)	32.56	39.8	38.91	38.20	34.02

Table – 11: Reproduction and Breeding Efficiency Performance of Jamunapari does

SN	Traits	2003–04	2004–05	2005–06	2006–07	2007–08
1.	No. of does available for breeding	360	340	396	302	352
2.	No. of does bred	294	288	295	250	273
3.	Tupping %	81.66	84.70	74.49	82.78	77.55
4.	Does disposed off between breeding and kidding	40	33	72	30	21
5.	No. of does available for kidding out of those available for breeding	320	307	324	272	331
6.	Tupped does available at kidding	254	255	223	220	252
7.	Does kidded	231	208	203	212	194
	Birth : Single (%)	157 (67.97%)	125 (60.10%)	127 (62.56%)	131 (61.79)	128 (65.97)
	Twin (%)	69 (29.87%)	79 (37.98%)	74 (36.45%)	74 (35%)	66 (34.02)
	Triplet (%)	05 (2.16%)	04 (1.92%)	02 (1%)	06 (2.8)	-
8.	No. of abortions	03	01	03	02	04
9.	No. of stillbirth/Dystocia	01	-	0	03	01
10.	Actual live births	310	295	281	301	260
11.	**Breeding efficiency/fertility (%)**					
	(a) On the basis of does available	73.43	68.08	63.58	79.77	60.12
	(b) On the basis of does tupped	92.52	81.96	92.73	98.63	78.96
12.	**Kidding percent**					
	(a) On the basis of does available	96.52	96.09	86.72	110.66	78.54
	(b) On the basis of does tupped	122.04	115.68	126.00	136.81	103.17
13.	Kidding rate (Liter size)	134	142	138	142	134

Table – 12: Mortality (%) Statement of Jamunapari Flock

Age Group	YEAR		
	2005 – 06	2006 – 07	2007 – 08
0 – 3 M	2.23	5.66	5.24
3 – 6 M	1.73	6.22	3.57
6 – 12 M	2.92	3.78	2.18
12 – 18 M	3.70	0.66	0.43
>12 months	-	-	6.37
Overall	6.39	9.56	7.09

Table – 13: Population Growth of Jamunapari Flock (%)

Period	Initial Adult does (A)	No. of Kids born (B)	Total strength (A+B) = (C)	No. of kids died (Birth-12 M) (D)	Population Growth (%) (B–D)*100 / (A)
2001 – 02	232	302	609	54	106.89
2002 – 03	224	250	532	13	105.80
2003 – 04	226	310	627	29	124.33
2004 – 05	249	295	603	24	108.83
2005 – 06	237	281	518	33	104.64
2006 – 07	223	301	524	54	110.76
2007 – 08	222	260	482	36	101.01

Table – 14: Weight Gain and Carcass Characteristics of Jamunapari goats on complete ration

Treatment	Arhar pellet	Arhar Mess	Gwar Pellet	Gwar Mash
Initial weight	12.5±0.76	12.75±0.79	12.83±0.54	13.33±0.81
Wt. at 9m.	27.65±1.51	24.18±2.14	25.85±1.31	23.55±1.67
ADG 3-6	73.51±7.59	65.74±10.43	58.14±5.93	54.07±7.48
ADG 6-9	94.81±10.93	61.29±9.10	86.48±11.83	59.44±11.42
ADG 3-9	84.17±5.92	63.51±9.53	72.31±4.78	56.75±8.91
Wt. gain	15.15±1.06	11.43±1.71	13.01±0.86	10.21±0.85
Sl. Weight	25.76±3.52	24.60±4.87	24.96±0.56	24.76±1.14
Empty weight	22.02±2.33	20.23±3.87	21.56±0.65	21.53±1.27
Carcass weight	12.23±1.62	11.36±2.67	11.76±0.12	11.97±1.09
Dressing % (L Wt)	47.56±1.67	45.76±2.30	47.16±1.02	48.17±3.18
Dressing % (L Wt)	55.4±1.67	55.43±3.08	54.56±1.67	55.33±1.61

Table – 15: Animals culled, transferred and supplied

Particular	2004-05	2005– 06	2006-07	2007-08
Culled on poor yield and breed impurity	00	49	18	20
Culled on poor health basis	31	39	47	30
Total culled	31	88	70	50
Transferred	28	02	29	31
Supplied for improvement	101	230	132	55

Table 16: Feed and Fodder Consumption

Year	2003-04	2004-05	2005-06	2006-07	2007-08
Feeds	Quantity (Q)	Quantity (Q)	Quantity (Q)	Quantity (Q)	Quantity (Q)
Adult Feed	655.6	666.7	624.0	488.6	613
Kid pellet	125.4	234.9	0	176.6	129
Mash Feed	133.1	136.8	290.6	115.4	108
Barley grain	18.0	38.0	20.0	0	0
Total Conc.	**932.1**	**1076.2**	**934.5**	**780.6**	**850.0**
Bhoosa	1110	605	1091.6	871	942
Green Fodder	-	1377.5	836	364	580

Table 17: Staff Position

Year	Scientific	Technical	Permanent	DPL	Contractual	Total labours
2003 – 04	3	2	10	09	12	31
2004 – 05	3	2	8	6	12	26
2005 – 06	3	2	6	7	9	22
2006 – 07	2	2	7	8	0	15
2007 – 08	2	2+1	8	11	0	19

Table – 18 : Economic Profile of Jamunapari Farm (Income during 1.4.2007 to 31.3.2008)

SN.	Item	Quantity	Amount (Rs.)
1.	Sale of Milk (lit)	12910	107798.5
2.	Sale of culled goats (N)	50	35869
3.	Sale of goats for Breeding (N)	55	138700
4.	Transfer (N.) for research	31	38750
5	Slaughter	24	7806.2
5.	Skin (N)	59	1526
		Total Receipt	**Rs. 330449.74**