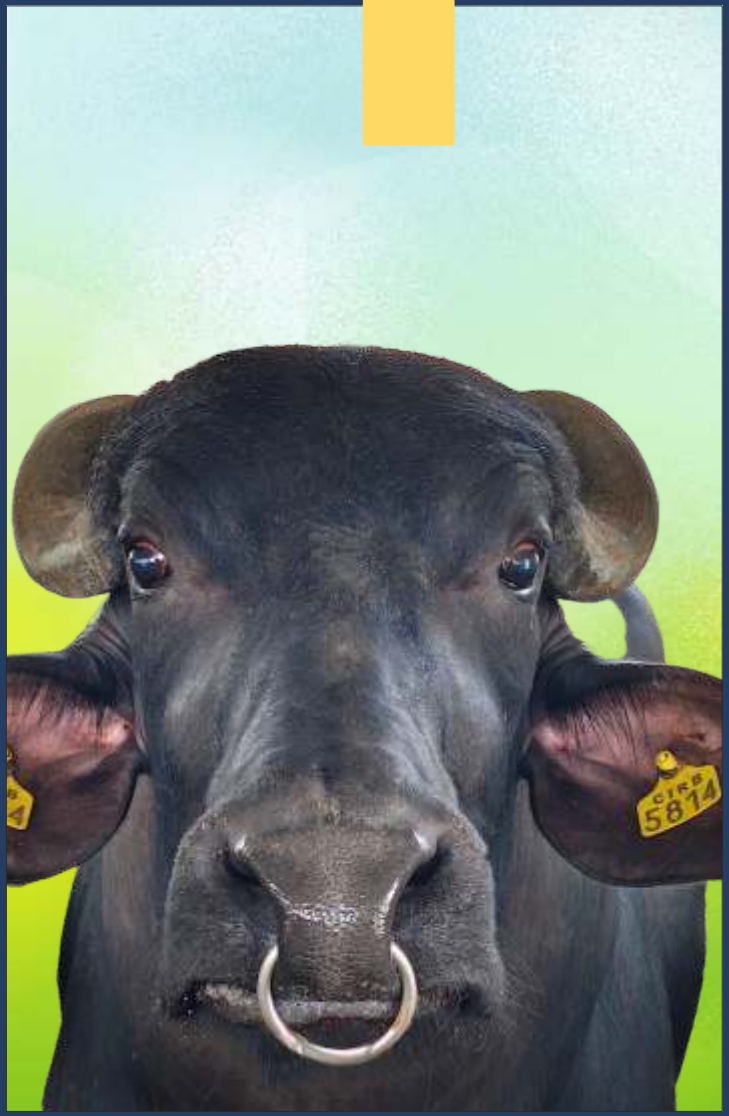
# SIRE DIRECTORY 2024

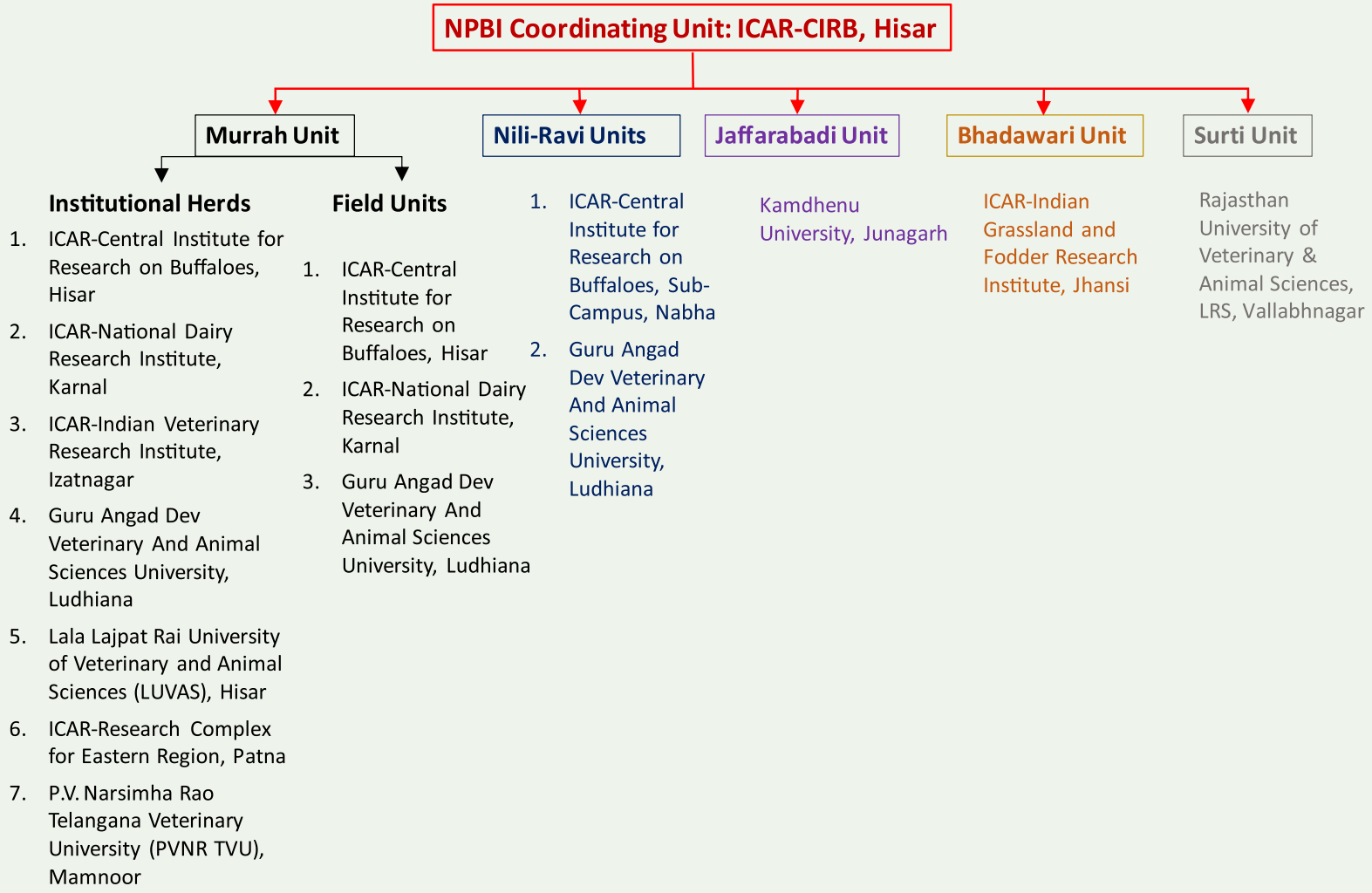


Coordinating Unit

## Network Project on Buffalo Improvement

## Central Institute for Research on Buffaloes

Hisar – 125 001,
Haryana, India


NPBI Coordinating Unit: ICAR-CIRB, Hisar
Murrah Unit
Institutional Herds
1. ICAR-Central Institute for Research on Buffaloes, Hisar
2. ICAR-National Dairy Research Institute, Karnal
3. ICAR-Indian Veterinary Research Institute, Izatnagar
4. Guru Angad Dev Veterinary And Animal Sciences University, Ludhiana
5. Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS), Hisar
6. ICAR-Research Complex for Eastern Region, Patna
7. P.V. Narsimha Rao Telangana Veterinary University (PVNR TVU), Mamnoor
Field Units
1. ICAR-Central Institute for Research on Buffaloes, Hisar
2. ICAR-National Dairy Research Institute, Karnal
3. Guru Angad Dev Veterinary And Animal Sciences University, Ludhiana
Nili-Ravi Units
1. ICAR-Central Institute for Research on Buffaloes, Sub-Campus, Nabha
2. Guru Angad Dev Veterinary And Animal Sciences University, Ludhiana
Jaffarabadi Unit
Kamdhenu University, Junagarh
Bhadawari Unit
ICAR-Indian Grassland and Fodder Research Institute, Jhansi
Surti Unit
Rajasthan University of Veterinary & Animal Sciences, LRS, Vallabhnagar

# SIRE DIRECTORY

## 2024


Coordinating Unit

**Network Project on Buffalo Improvement**

**Central Institute for Research on Buffaloes**

**Hisar – 125 001, Haryana, India**

# Bulls Produced under Network Project on Buffalo Improvement

*Published by*

Director
ICAR-CIRB,
Hisar (125 001)

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# EXECUTIVE SUMMARY

All India Coordinated Research Project on buffaloes was initiated in the year 1970-71 for genetic evaluation of large and medium size buffaloes which was later on made specific on two important breeds viz. Murrah and Surti in the coordinated program. The objective of the project was to improve the milk production of buffaloes through assessment of genetic merit of Sires. With the establishment of Central Institute for Research on Buffalo (CIRB) at Hisar in 1985 through the transfer of erstwhile progeny testing farm, Haryana, the AICRP technical program was modified to the effect that NDRI, Karnal and CIRB, Hisar were to maintain Murrah. This program remained in operation till April 1993 when the AICRP was later continued into Network Mode and is presently known as Network Project on Buffalo Improvement. Presently the project undertakes the progeny testing program with institute herds of Murrah buffalo at CIRB, Hisar, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana, NDRI, Karnal, Indian Veterinary Research Institute (IVRI), Izatnagar, Lala Lajpat Rai University of Veterinary & Animal Sciences (LUVAS), Hisar, and ICAR Research Complex for eastern region, Patna. Elite herds of Jaffrabadi, Surti, Bhadawari and Nili-Ravi breeds of buffaloes have been established in their respective breeding tracts. The efforts made by scientific manpower through this venture are able to standardize testing methodology and germplasm evaluation for superior bull production of important breeds of buffaloes. The infrastructure has been created which is capable to generate germplasm in the form of bulls and frozen semen at some of the testing centers. To increase the number of recordings for better accuracy of sire evaluation, field progeny testing program at farmer's doorstep was initiated in the year 2001. About 16953 artificial inseminations were carried out in 2022-23 at farmer's door in the village to produce daughters. The milk yields of daughters are being recorded for use in sire evaluation.

Around 1060 breedable buffaloes are being maintained at institutional Murrah centres for production of high genetic merit male and female calves to be used for production of future sires. As per technical program for Murrah breed, a set of up to 18 pedigreed bulls is selected in each set and it is used for AI in the associated herds (1600 AIs per annum) and field buffaloes (approximately 20000 AIs per annum) for test mating over 18 months' duration. From 1st July 2023 to 31st Dec., 2024 semen of XXI set was used at all Murrah centres. There were 14 superior bulls in the XXI set (5 bulls from CIRB Hisar, 3 bulls from GADVASU Ludhiana, 2 bull from LUVAS, Hisar and 3 bull from NDRI Karnal 1 bull from IVRI, Izatnagar). So far, 289 superior bulls have been test mated in 21 sets.

Data of 762 daughters born from the 16th set of bulls which completed 1st lactation was compiled and bulls were evaluated. Bull no. M-29 from CIRB Hisar, 1053 from LUVAS Hisar and 2383 from GADVASU Ludhiana ranked 1st, 2nd and 3rd with breeding value 2579 kg, 2567 kg and 2547 kg, respectively. The percent superiority by BLUP Model was 3.82, 3.35 and 2.53, respectively. Nili-Ravi and Bhadawari breed centres are functioning as conservation and improvement units and Jaffrabadi and Surti breed centre are concentrating on field progeny testing along with maintaining the elite herd for bull production and testing. A breedable herd of 661 (Nili-Ravi-318, Jaffarabadi-201, Surti-79 and Bhadawari-63) is being maintained for the above four breeds.

# INTRODUCTION

In 1970-71, the Indian Council of Agricultural Research (ICAR) initiated systematic research on buffalo breeding through the All India Coordinated Research Project (AICRP) on buffaloes. Prior to this, the Progeny Testing Bull Farm at the Government Livestock Farm in Hisar had been conducting progeny testing in Murrah buffaloes since 1962. This farm was transferred from the Animal Husbandry Department of Haryana to the ICAR in 1985, leading to the establishment of the Central Institute for Research on Buffaloes.

Initially, the AICRP focused on the genetic evaluation of large and medium-sized buffaloes, later narrowing down to the Murrah and Surti, two significant breeds in India. The primary goal was to test sires to produce proven bulls that could enhance milk production. These efforts standardized testing methodologies and germplasm evaluation, allowing scientists to employ sire evaluation methods for producing superior bulls in important buffalo breeds. The project also developed infrastructure to generate germplasm, including tested bulls and high-quality frozen semen.

During the 8th five-year plan, the project expanded to produce a large number of genetically superior bulls based on pedigree and progeny performance. Various centers collaborated to ensure sustainable maintenance and large-scale production of improved germplasm for buffalo improvement programs, fostering institutional linkages. In the 9th plan, the scope of the Network Project broadened to include performance evaluation and improvement of several key buffalo breeds across India, such as Jaffarabadi, Nili Ravi, Surti, Bhadawari, Pandharpuri, Godavari, and Swamp buffaloes. Field progeny testing units for Murrah buffaloes and a Health Monitoring & Semen Quality Testing Laboratory were also established, becoming operational in 2001. The project now continues with following centers operational and breeds being maintained at them.

## PARTICIPATING CENTRES

| Name/Location | Breed | From | To |
|---|---|---|---|
| **Agricultural University based centres** | | | |
| GADVASU, Ludhiana | Murrah | 1993 | Continuing |
| LUVAS, Hisar | Murrah | 1993 | Continuing |
| NDUAT, Faizabad | Murrah | 2001 | 2011 |
| KU, Junagarh | Jaffarabadi | 2001 | Continuing |
| RAJUVAS, Vallabhnagar | Surti | 2001 | Continuing |
| MPKV, Kolhapur | Pandharpuri | 2001 | 2018 |
| SVVUV, Gudem | Godavari | 2001 | 2012 |
| AAU, Khanapara | Swamp | 2001 | 2018 |
| Field Unit GADAVASU | Murrah | 2001 | Continuing |
| Field Unit GADAVASU | Nili-Ravi | 2017 | Continuing |
| **ICAR institute based centres** | | | |
| IGFRI, Jhansi | Bhadawari | 2001 | Continuing |
| CIRB Sub-Campus, Nabha | Nilli-Ravi | 2001 | Continuing |
| Field Unit NDRI Karnal | Murrah | 2001 | Continuing |
| NDRI, Karnal | Murrah | 1993 | Continuing |
| CIRB, Hisar | Murrah | 1993 | Continuing |
| CCBF, Alamadi (TN) | Murrah | 1993 | 2007 |
| IVRI, Izatnagar | Murrah | 1993 | Continuing |
| ICAR-RER, Patna | Murrah | 2014 | Continuing |

## OBJECTIVES

1. To establish elite nucleus herds of important buffalo breeds for the production of genetically superior young bulls.
2. To evaluate sires through institutional / associated herd/field progeny testing.
3. To produce, test, propagate and conserve high genetic merit male germplasm Brief.

# BREEDS COVERED UNDER NPBI

SURTI

BHADAWARI

NILI-RAVI

JAFFARABADI

MURRAH

# MURRAH

Murrah – A breed whose name originated from its typical horn characteristics as described in local dialect of Haryana. A triple utility breed with milk, meat, and draft purpose, this breed has been globally famous in last few decades. Murrah with a beautiful jet black body is a walking milk ATM that has upheld the sustainability of rural livelihood, hence often described as “Black Gold”.

## Technical Programme

- Establishment and maintenance of an elite herd of 300 Murrah buffalo breed with a herd strength of 2000 and 1200 breedable females.
- Selection and testing of minimum 15 bulls of Murrah in every 18 months' cycle.
- Production of minimum 10,000 frozen semen doses from each test bull.
- Maintain a minimum number of 8000 frozen semen doses until the particular SET gets evaluated.
- Evaluation and ranking of bulls on the basis of their progeny performance (first lactation) for selection of top 20-25% as proven bulls from each set.
- Application of proven bull's semen on elite buffaloes for the production of future sires and replacement heifers.
- Minimum weekly recording of milk yield of individual daughters/ buffaloes at institutional herd / monthly recording in field units over complete lactation(s) with wet average, herd average, percent buffaloes in milk, lactation length, dry period, TLMY, SLMY (305 days or less, up to minimum of 240 days / 1500 kg in Murrah and Peak yield, Milk yield per day of herd life (total milk produced from date of birth till completion of 4th or more lactation).
- Monthly testing of milk constituents (Fat%, SNF% and Protein %) and Somatic Cell Count, wherever feasible, at institutional herds.
- Recording of reproductive traits viz., AFC, Service period, Days open, Calving interval, Number of services per conception, Conception rate and Calving abnormalities.
- Health management including udder health, vaccination, de-worming, disease screening, mortality and periodic body weights records.

## Test bulls used under Network Project

Since the inception of the Network Project in 1993, till date test mating of 20 sets of bulls have been completed, and 21$^{st}$ set is ongoing test mating up to December 2024. Brief summary of the duration, the number of bulls, average of the dam's best yield and highest dam's yield in each set is given below.

| Set No. | Duration | Number of test Bulls | Av. 305 day or less dams best yield (kg) | Highest dam 305 day yield (kg) | 305 day or less Herd Average (kg)/ Herd Size |
|---|---|---|---|---|---|
| 1. | Jul 1993 to Dec 1994 | 11 | 3050 | 4114 | 1820/501 |
| 2. | Jan 1995 to Jun 1996 | 15 | 3002 | 3898 | 1920/487 |
| 3. | Jul 1996 to Dec 1997 | 15 | 2876 | 3275 | 2053/476 |

| | | | | | |
|---|---|---|---|---|---|
| 4. | Jan 1998 to Jun 1999 | 14 | 2999 | 3401 | 1973/457 |
| 5. | Jul 1999 to Dec 2000 | 15 | 3120 | 3898 | 1943/551 |
| 6. | Jan 2001 to Jun 2002 | 16 | 3055 | 3898 | 1972/562 |
| 7. | Jul 2002 to Dec 2003 | 12 | 2928 | 3544 | 2017/505 |
| 8. | Jan 2004 to Jun 2005 | 16 | 2928 | 3690 | 2056/511 |
| 9. | Jul 2005 to Dec 2006 | 15 | 2923 | 3336 | 2008/458 |
| 10. | Jan 2007 to Jun 2008 | 14 | 2829 | 3369 | 2130/509 |
| 11. | July 2008 to Dec 2009 | 14 | 2792 | 3051 | 2046/483 |
| 12. | Jan 2010 to Jun 2011 | 12 | 3362 | 5192 | 2115/384 |
| 13. | Jul 2011 to Dec 2012 | 8 | 3205 | 3805 | 2199/380 |
| 14. | Jan 2013 to Jun 2014 | 12 | 3451 | 4636 | 2356/288 |
| 15. | July 2014 to Dec 2015 | 15 | 3350 | 4636 | 2361/335 |
| 16. | Jan 2016 to Jun 2017 | 15 | 3762 | 4636 | 2349/280 |
| 17. | Jul 2017 to Dec 2018 | 15 | 3225 | 4668 | 2448/448 |
| 18. | Jan 2019 to Jun 2020 | 15 | 3284 | 3867 | 2586/333 |
| 19. | Jul 2020 to Dec 2021 | 12 | 3435 | 4069 | 2607/374 |
| 20. | Jan 2022 to Jun 2023 | 14 | 3658 | 4814 | 2625/367 |
| 21. | Jul 2023 to Dec 2024 | 14 | 3811 | 5170 | 2721/401 |

## List of Murrah bulls (progeny tested 1-16$^{th}$ set) under Network Project on Buffalo Improvement

### Set - I

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 days or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 392 | CIRB | 06-04-1989 | 238 | PQ-1 | 2594 | 2074 | 13 | 2118 | 22.8 | I |
| 3567 | NDRI | 07-09-1989 | 2408 | 2304 | 2877 | 1813 | 20 | 1852 | 6.4 | II |
| 896 | CIRB | 27-07-1987 | 911 | 644 | 3003 | 1796 | 26 | 1844 | 5.5 | III |
| 3108 | NDRI | 29-04-1986 | 2221 | 368 | 4114 | 1780 | 28 | 1822 | 4.4 | IV |
| 3098 | NDRI | 12-02-1986 | 360 | 1039 | 3164 | 1589 | 18 | 1547 | -8.2 | IX |
| 3125 | NDRI | 14-04-1986 | 1091 | 2361 | 2828 | 1717 | 17 | 1717 | 0 | V |
| 3117 | NDRI | 24-05-1986 | 377 | 1039 | 2858 | 1652 | 20 | 1626 | -4.2 | VI |
| 3206 | NDRI | 18-11-1986 | 2376 | 1992 | 3124 | 1605 | 8 | 1611 | -6.8 | VII |
| 3294 | NDRI | 03-08-1987 | 1393 | 2288 | 3003 | 1592 | 11 | 1590 | -7.7 | VIII |
| 3462 | NDRI | 08-11-1988 | 2372 | 2666 | 3072 | 1398 | 5 | 1619 | -18.9 | X |
| 3127 | NDRI | 15-06-1986 | 1608 | 1039 | 2927 | 1499 | 14 | 1462 | -13.6 | XI |

## Set – II

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 761 | CIRB | 20-11-1990 | 474 | 366 | 2878 | 1960.4 | 15 | 1987.4 | 9.37 | I |
| 93 | CIRB | 03-11-1990 | - | PQ-1 | 22.0 Peak Yield | 1874.1 | 16 | 1889.8 | 3.96 | II |
| 829 | CIRB | 04-07-1991 | 597 | 766 | 2626 | 1877.8 | 10 | 1876.3 | 3.53 | III |
| 759 | CIRB | 17-11-1990 | 208 | 963 | 2650 | 1860.7 | 14 | 1868.9 | 2.8 | IV |
| 3638 | NDRI | 26-04-1990 | 2929 | 2848 | 3278 | 1857.5 | 14 | 1865.2 | 2.41 | V |
| 3551 | NDRI | 09-08-1989 | 2762 | 2321 | 3898 | 1837.5 | 19 | 1845 | 1.49 | VI |
| 1253 | PAU | 27-10-1991 | 716 | 82 | 3348 | 1844 | 9 | 1841.6 | 1.29 | VII |
| 3750 | NDRI | 27-04-1991 | 2929 | 2880 | 3278 | 1747.9 | 14 | 1735 | -4.22 | VIII |
| 1290 | PAU | 06-03-1992 | 448 | 883 | 2628 | 1711.1 | 14 | 1691.4 | -6.92 | IX |
| 3689 | NDRI | 18-09-1990 | 2118 | 101 | 3424 | 1650.8 | 9 | 1665.4 | -9.73 | |
| 3736 | NDRI | 08-02-1991 | 63 | 610 | 3264 | 1661.1 | 10 | 1665.1 | -9.19 | XI |
| 1241 | PAU | 18-09-1991 | 576 | 82 | 2971 | 2015.4 | 5 | 1939 | Not ranked - only 5 daughters | |

## Set – III

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 1354 | PAU | 12-12-1992 | 762 | 989 | 3088 | 2072 | 6 | 1975 | 13.11 | I |
| 1153 | CIRB | 13-08-1993 | 701 | 896 | 2540 | 1934 | 13 | 1957 | 12.27 | II |
| 1061 | CIRB | 24-09-1992 | 769 | 896 | 2846 | 1902 | 12 | 1913 | 9.5 | III |
| 1165 | CIRB | 04-09-1993 | 597 | 11 | 2627 | 1912 | 9 | 1898 | 8.5 | IV |
| 3930 | NDRI | 10-09-1992 | 2984 | 610 | 2912 | 1845 | 11 | 1847 | 5.42 | V |
| 1131 | CIRB | 19-03-1993 | 80 | 896 | 2827 | 1943 | 3 | 1834 | 4.56 | VI |
| 3966 | NDRI | 24-11-1992 | 3117 | 3398 | 2820 | 1804 | 14 | 1812 | 3.31 | VII |
| 1023 | CIRB | 24-08-1992 | 241 | 592 | 2710 | 1795 | 11 | 1796 | 2.33 | VIII |
| 1315 | PAU | 04-08-1992 | 834 | 883 | 2808 | 1746 | 10 | 1747 | -0.62 | IX |
| 3924 | NDRI | 30-08-1992 | 2948 | 82 | 3275 | 1711 | 23 | 1687 | -4.41 | XI |
| 993 | CIRB | 14-04-1992 | 401 | 592 | 2976 | 1704 | 16 | 1689 | -4.19 | X |
| 3865 | NDRI | 10-02-1992 | 3072 | 2748 | 2927 | 1599 | 9 | 1615 | -8.55 | XII |
| 3949 | NDRI | 28-09-1992 | 3125 | 3396 | 2775 | 1624 | 15 | 1596 | -9.83 | XIII |
| 1171 | CIRB | 13-09-1993 | 210 | 887 | 3007 | 1466 | 5 | 1582 | -10.41 | XIV |
| 1084 | CIRB | 22-10-1992 | 210/90 | 398 | 3007 | 1562 | 15 | 1520 | -14.4 | XV |

## Set – IV

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 1506 | PAU | 25-04-1995 | - | 988 | 3018 | 2065.1 | 12 | 2089 | 18.81 | I |
| 1451 | PAU | 10-08-1994 | - | 3567 | 3401 | 1951.4 | 10 | 1945 | 10.44 | II |
| 1437 | PAU | 04-04-1994 | 797 | 636 | 3127 | 1919.1 | 9 | 1904 | 8.11 | III |
| 1319 | CIRB | 27-01-1994 | 389 | 11 | 2538 | 1829.6 | 26 | 1884 | 6.99 | IV |
| 4188 | NDRI | 14-08-1994 | 3379 | 3567 | 3077 | 1844.6 | 8 | 1831 | 3.94 | V |
| 4124 | NDRI | 07-01-1994 | 3224 | 3117 | 3280 | 1763.9 | 14 | 1764 | 0.01 | VI |
| 1360 | CIRB | 07-05-1994 | 381 | 887 | 2537 | 1714.2 | 8 | 1721 | -0.31 | VII |
| 4071 | NDRI | 05-09-1993 | 2835 | 888 | 3365 | 1692.1 | 15 | 1676 | -4.83 | VIII |
| 1341 | CIRB | 20-03-1994 | 474 | 11 | 2878 | 1663.4 | 16 | 1636 | -7.08 | IX |
| 1434 | PAU | 07-03-1994 | 1161 | 882 | 2640 | 1547.2 | 9 | 1567 | -11 | X |
| 1446 | PAU | 10-06-1994 | 762 | 988 | 3088 | 1526.7 | 8 | 1564 | -11.13 | XI |
| 1363 | CIRB | 23-09-1994 | 315 | 888 | 3031 | 1580.4 | 13 | 156 | -11.53 | XII |
| 1538 | CIRB | 20-05-1995 | 597 | 82 | 2786 | 1553.4 | 11 | 1548 | -12.04 | XIII |
| 4090 | NDRI | 20-10-1993 | 3364 | 82 | 3214 | 2116.7 | 6 | 1946 | - | - |

## Set – V

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 4393 | NDRI | 10-12-1995 | 2762 | 1908 | 3898 | 2143 | 13 | 393.4 | 22.29 | I |
| 4371 | NDRI | 23-10-1995 | 2984 | 988 | 3258 | 1971 | 22 | 263.5 | 14.9 | II |
| 4245 | NDRI | 22-11-1994 | 2948 | 988 | 3700 | 1920 | 13 | 141.9 | 7.96 | III |
| 4244 | NDRI | 16-11-1994 | 3296 | 888 | 3392 | 1917 | 13 | 138.6 | 7.77 | IV |
| 4395 | NDRI | 14-12-1995 | 3364 | 1908 | 3215 | 1885 | 12 | 98 | 5.48 | V |
| 1798 | CIRB | 20-11-1996 | 545/4.5 | 2583 | 2753 | 1876 | 8 | 68.9 | 3.85 | VI |
| 1641 | CIRB | 16-10-1995 | 545/4.5 | 2361 | 2753 | 1818 | 10 | 23.2 | 1.29 | VII |
| 1666 | CIRB | 12-12-1995 | 210/90 | UK | 3007 | 1789 | 13 | -4.6 | -0.26 | VIII |
| 1536 | PAU | 02-09-1995 | P1161 | 888 | 3786 | 1774 | 11 | -20.5 | -1.14 | IX |
| 1555 | PAU | 06-11-1995 | P1098 | 3462 | 2948 | 1706 | 6 | -60.9 | -3.39 | X |
| 1491 | CIRB | 16-01-1995 | 434/3.5 | 3567 | 3148 | 1696 | 8 | -75.4 | -4.19 | XI |
| 1573 | PAU | 18-03-1996 | 1017 | 1290 | 2866 | 1638 | 6 | -107.9 | -5.99 | XII |
| 1749 | CIRB | 22-09-1996 | 216/4.4 | 2321 | 2796 | 1247 | 4 | -280.2 | -15.5 | XIII |
| 1485 | CIRB | 01-01-1995 | 107/1.8 | 392 | 2523 | 1530 | 18 | -354.8 | -19.43 | XIV |
| 1524 | PAU | 07-08-1995 | 839 | 888 | 2749 | 1437 | 12 | -384.5 | -21.1 | XV |

## Set –VI

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 1153 | HAU | 29-09-1996 | 618 | 759 | 2675 | 2022.8 | 21 | 2121 | 13.31 | I |
| 4506 | NDRI | 31-10-1996 | 3527 | 3551 | 3512 | 1981.7 | 10 | 1972 | 9.29 | II |
| 1933 | CIRB | 01-10-1997 | 208 | 988 | 2650 | 1931.9 | 14 | 1953 | 6.92 | III |
| 4523 | NDRI | 26-12-1996 | 2762 | 3689 | 3898 | 1926.1 | 13 | 1941 | 6.52 | IV |
| 1922 | CIRB | 14-09-1997 | 388 | 988 | 2684 | 1746.2 | 18 | 1720 | -4.49 | V |
| 1667 | PAU | 08-09-1997 | 1610 | 3862 | 2988 | 1726.6 | 10 | 1729 | -5.39 | VI |
| 1135 | HAU | 15-08-1996 | 12 | 93 | 3250 | 1637.4 | 10 | 1642 | -10.59 | VII |
| 4619 | NDRI | 26-08-1997 | 3403 | 3924 | 3073 | 2007.3 | 7 | 1964 | 10.88 | - |
| 1706 | PAU | 14-05-1998 | 3135 | 1619 | 3135 | 1524.3 | 3 | 1698 | -16.45 | - |
| 4637 | NDRI | 12-09-1997 | 3521 | 2100 | 3437 | 1666 | 5 | 1726 | -8.64 | - |
| 1836 | CIRB | 01-02-1997 | 224 | 1908 | 2744 | 1814.3 | 9 | 1815 | -0.25 | - |
| 1717 | PAU | 02-09-1998 | 1530 | 1153 | 2775 | 2096 | 5 | 1982 | 15.32 | - |
| 2028 | CIRB | 03-05-1998 | 80/4.7 | 3924 | 2689 | 1568.6 | 8 | 1607 | -1.44 | - |
| 1944 | CIRB | 10-10-1997 | 545 | 2583 | 2752 | 1622.6 | 5 | 1699 | -11.11 | - |
| 1713 | PAU | 05-08-1998 | 1393 | 993 | 2815 | 1391.7 | 3 | 1644 | -23.83 | - |
| 4640 | NDRI | 18-09-1997 | 3481 | 2100 | 3808 | 1735.4 | 9 | 1793 | -4.84 | - |

*Note: Bulls with less than 10 daughters born not been given ranking.*

## Set – VII

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 4915 | NDRI | 28-10-1999 | 3521 | 2921 | 3437 | 2039 | 17 | 2116 | 17.26 | I |
| 1796 | PAU | 10-02-2000 | 1386 | 1506 | 3170 | 2215 | 6 | 2092 | 15.81 | II |
| 2331 | CIRB | 15-11-1999 | 515/4.9 | 1446 | 2664 | 1904 | 9 | 1897 | 4.85 | III |
| 4807 | NDRI | 12-01-1999 | 3655 | 2363 | 3544 | 1882 | 10 | 1881 | 3.98 | IV |
| 1419 | HAU | 24-01-2000 | 782 | 4188 | 3042 | 1795 | 20 | 1790 | -1.08 | V |
| 2121 | CIRB | 27-09-1998 | 982/3.7 | 1071 | 2518 | 1690 | 5 | 1736 | -4.04 | VI |
| 2184 | CIRB | 06-01-1999 | 1237 | 1363 | 2574 | 1756 | 19 | 1734 | -4.11 | VII |
| 1727 | PAU | 31-10-1998 | 1467 | 1084 | 3098 | 1697 | 7 | 1722 | -4.78 | VIII |
| 1749 | PAU | 19-02-1999 | 1425 | 1354 | 3182 | 1702 | 8 | 1719 | -4.98 | IX |
| 2363 | CIRB | 27-12-1999 | 917/4.0 | 2538 | 2654 | 1739 | 24 | 1697 | -6.18 | X |
| 1746 | PAU | 21-09-1999 | 1802 | 1153 | 2718 | 1696 | 13 | 1680 | -7.08 | XI |
| 2133 | CIRB | 08-10-1998 | 381/3.5 | 1908 | 2537 | 1378 | 3 | 1633 | -9.68 | XII |

## Set – VIII

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 1875 | GADVASU | 20-08-2001 | 1669 | 558 PAU (PT) | 2714 (3) | 2357 | 8 | 2300 | 24.89 | I |
| 4813 | NDRI | 17-01-1999 | 3818 | 3966 NDRI (III) | 3016 (1) | 2148 | 7 | 2101 | 12.59 | II |
| 2422 | CIRB | 19-08-2000 | 1194 | 4371 NDRI (V) | 3369 (4) | 2092 | 7 | 2057 | 9.41 | III |
| 2308 | CIRB | 25-10-1999 | 587/4.9 | 584 PAU (PT) | 2655 (3) | 2003 | 9 | 1998 | 4.51 | IV |
| 2250 | CIRB | 30-08-1999 | 239/3.8 | 4071 NDRI (IV) | 2748 (5) | 1978 | 4 | 1952 | 2.94 | V |
| 5049 | NDRI | 03-10-2000 | 3296 | 1992 NDRI (P) | 3392 (2) | 1958 | 9 | 1955 | 1.87 | VI |
| 1867 | GADVASU | 13-06-2001 | 1901 | 1485 CIRB (V) | 2709 (1) | 1941 | 2 | 1929 | 0.9 | VII |
| 5083 | NDRI | 07-01-2001 | 3606 | 2704 NDRI (P) | 2924 (2) | 1915 | 5 | 1918 | -0.49 | VIII |
| 4865 | NDRI | 20-07-1999 | 3791 | 4071 NDRI (IV) | 3333 (2) | 1847 | 10 | 1847 | -4.41 | IX |
| 2479 | CIRB | 01-10-2000 | 336/1.9 | 4245 NDRI (V) | 2519 (5) | 1938 | 13 | 1832 | -4.59 | X |
| 5054 | NDRI | 19-10-2000 | 3543 | 1992 NDRI (P) | 3011 (2) | 1815 | 7 | 1838 | -6.03 | XI |
| 1868 | GADVASU | 13-07-2001 | 1155 | 2321 NDRI (PT) | 2591 (3) | 1736 | 3 | 1846 | -10.05 | XII |
| 1893 | GADVASU | 11-10-2001 | 1820 | 4371 NDRI (V) | 2753 (1) | 1728 | 3 | 1843 | -10.48 | XIII |
| 1492 | HAU | 02-12-2000 | 1050 | 905 | 2586 (1) | 1704 | 5 | 1788 | -11.93 | XIV |
| 2522 | CIRB | 25-11-2000 | 839/3.1 | 1641 CIRB (V) | 2567 (5) | 1706 | 7 | 1752 | -12.04 | XV |
| 1509 | HAU | 23-06-2001 | 845 | 1524 PAU (V) | 3690 (4) | 1648 | 4 | 1780 | -14.84 | XVI |

## Set – IX

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. yield (kg) | No. of daughters recorded | Sire Index | % Superiority over contemporary daughters | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 1994 | GADVASU | 16-06-2003 | 1884 | 392 | 2938 | 2431.7 | 18 | 2486.61 | 11.73 | I |
| 5258 | NDRI | 01-08-2002 | 4066 | 1706 | 3305 | 2539.3 | 7 | 2466.2 | 10.52 | II |
| 5197 | NDRI | 13-11-2001 | 3783 | 1666 | 2831 | 2316.3 | 12 | 2319.83 | 3.76 | III |
| 2582 | CIRB | 23-02-2001 | P-224 | 1573 | 2836 | 2279.5 | 24 | 2298.07 | 2.8 | IV |
| 5112 | NDRI | 24-03-2001 | 3791 | 2704 | 3333 | 2268.2 | 30 | 2285.68 | 2.23 | V |
| 2720 | CIRB | 12-11-2001 | 515/4.9 | 1573 | 2664 | 2274 | 15 | 2280.07 | 1.91 | VI |
| 1903 | GADVASU | 02-01-2002 | 1802 | 1933 | 2718 | 2250 | 20 | 2253.68 | 0.68 | VII |
| 1575 | CCS HAU | 05-09-2002 | 1050 | 4523 | 3194 | 2240.8 | 18 | 2241.17 | 0.09 | VIII |
| 2910 | CIRB | 25-10-2002 | 1338 | 4506 | 3062 | 2239 | 19 | 2238.82 | -0.03 | IX |
| 1913 | GADVASU | 12-02-2002 | 1795 | 1922 | 2740 | 2216.7 | 14 | 2213.58 | -1.21 | X |
| 5312 | NDRI | 21-01-2003 | 3492 | 2361 | 3534 | 2158.5 | 3 | 2206.6 | -1.5 | XI |
| 1940 | GADVASU | 26-07-2002 | 1530 | 584 | 2775 | 2200.5 | 17 | 2190.7 | -2.29 | XII |
| 5218 | NDRI | 09-02-2002 | 3447 | 2583 | 2912 | 2158.7 | 22 | 2125.67 | -5.38 | XIII |
| 1964 | GADVASU | 05-12-2002 | 1819 | 1933 | 2672 | 2147.8 | 23 | 2107.78 | -6.23 | XIV |
| 2592 | CIRB | 20-03-2001 | 1393 | 1666 | 3336 | 2097.8 | 28 | 2018.21 | -10.53 | XV |

## Set -X

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | No. of daughters recorded | Sire Index | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|
| 1693 | LUVAS | 27-10-03 | 1050 | 392 | 3194 | 13 | 2320.39 | 1.23 | I |
| 2045 | GADVASU | 24-02-04 | 1835 | 3567 | 3369 | 48 | 2320.29 | 1.23 | II |
| 3103 | CIRB | 13-10-03 | 1144 | 392 | 2942 | 15 | 2319.10 | 1.18 | III |
| 2990 | CIRB | 24-06-03 | 587/4.9 | 392 | 2655 | 16 | 2316.41 | 1.06 | IV |
| 507 | IVRI | 14-12-03 | 341 | 1923 | 2572 | 13 | 2296.51 | 0.19 | V |
| ND2 | NDUAT | 07-09-02 | 119 | | 2583 | 12 | 2271.8 | -0.89 | VI |
| 2074 | GADVASU | 02-09-04 | 1794 | 3567 | 3050 | 27 | 2270.51 | -0.94 | VII |
| ND1 | NDUAT | 03-09-02 | 106 | | 2644 | 10 | 2266.88 | -1.10 | VIII |
| 2062 | GADVASU | 04-08-04 | 1819 | 1419 | 2672 | 39 | 2266.29 | -1.13 | IX |
| 3631 | CIRB | Purchased 26-09-06 | | | 18.0 kg Peak Yield | 24 | 2265.54 | -1.16 | X |
| 5396 | NDRI | 21-11-03 | 4635 | 4807 | 2617 | 19 | 2256.41 | -1.56 | XI |
| 2083 | GADVASU | 20-09-04 | 1888 | 2363 | 3063 | 29 | 2250.03 | -1.84 | XII |
| 2073 | GADVASU | 01-09-04 | 1909 | 2184 | 2717 | 43 | 2239.06 | -2.32 | XIII |

## Set –XI

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lact 305 day or less yield (kg) | No. of daughters recorded | Sire Index | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|
| 3267 | CIRB | 27-09-04 | 2263 | 1419 | 2489 | 29 | 2177.81 | 0.20 | I |
| 3591 | CIRB | 29-05-06 (P) | 3590 | | 2598 | 29 | 2176.56 | 0.14 | II |
| 2133 | GADVASU | 09-11-05 | 2041 | 1354 | 2844 | 36 | 2175.40 | 0.09 | III |
| 12 | CCSHAU | 29-05-05 | 1180 | 93 | 2858 | 20 | 2175.13 | 0.07 | IV |
| 5489 | NDRI | 25-08-04 | 408 | | 3031 | 21 | 2174.76 | 0.06 | V |
| 2154 | GADVASU | 30-05-06 | 2360 | 1964 | 2593 | 39 | 2174.60 | 0.05 | VI |
| 333 (Golu) | DIDWADI | | | | 22.0 kg Peak Yield | 2 | 2174.31 | 0.04 | VII |
| 3226 | CIRB | 20-08-04 | 587/4.9 | 829 | 2655 | 24 | 2174.25 | 0.03 | VIII |
| 3255 | CIRB | 16-09-04 | 2074 | 1796 | 3051 | 33 | 2172.50 | -0.05 | IX |
| 5496 | NDRI | 07-09-04 | 412 | | 2780 | 16 | 2172.44 | -0.05 | X |
| 5414 | NDRI | 21-01-04 | 4045 | 2133 | 2911 | 9 | 2172.33 | -0.06 | XI |
| ND6 | NDUAT | 08-03-05 | 137 | - | 2702 | 1 | 2171.87 | -0.08 | XII |
| 2148 | GADVASU | 01-03-06 | 1710 | 4865 | 3008 | 48 | 2169.46 | -0.19 | XIII |
| 5516 | NDRI | 07-10-04 | 5110 | 4915 | 2765 | 24 | 2168.95 | -0.21 | XIV |

## Set -XII

| Bull no. | Location | Date of birth | Dam No. | Sire No. | Dams best lactation 305 day or less yield (kg) | No. of daughters recorded | Sire Index | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|
| 2185 | GADVASU | 23-11-06 | 1898 | 1354 | 3423 | 66 | 2341.35 | 0.94 | I |
| 183 | LUVAS | 03-06-07 | 1374 | 1354 | 2824 | 24 | 2336.77 | 0.75 | II |
| 2177 | GADVASU | 06-10-06 | 1884 | 1354 | 3024 | 96 | 2327.51 | 0.35 | III |
| 5604 | NDRI | 20-07-05 | 4020 | 3108 | 3222 | 15 | 2327.09 | 0.33 | IV |
| 2176 | GADVASU | 02-10-06 | 2109 | 1354 | 2754 | 58 | 2323.32 | 0.17 | V |
| 5720 | NDRI | 29-06-06 | 3543 | 3930 | 3011 | 22 | 2322.94 | 0.15 | VI |
| Khurana | Rohtak | 16-06-07 | UK | UK | 4160/22.0 kg PY | 9 | 2313.58 | -0.25 | VII |
| 5710 | NDRI | 23-05-06 | 5074 | 5054 | 2711 | 22 | 2313.12 | -0.27 | VIII |
| R -10 | REDHU FARM | 15-11-07 | 042810 | | 5192 | 27 | 2312.62 | -0.29 | IX |
| 3598 | CIRB | 25-07-06 | 587 | 1354 | 2655 | 25 | 2309.22 | -0.44 | X |
| R-11 | REDHU FARM | 28-11-07 | 042832 | | 4000 | 23 | 2307.61 | -0.51 | XI |
| 220 | LUVAS | 20-09-07 | 1134 | 1153 | 2631 | 11 | 22.98.98 | -0.88 | XII |

## Set -XIII

| Bull no. | Location | Date of birth | Dam No. | Sire No. / Set No. | Dams best lactation 305 day or less yield (kg) | No. of daughters recorded | Sire Index | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|
| 2234 | GADVASU | 06-03-2008 | 2138 | 5396 / X | 3114 | 117 | 2688.44 | 14.8 | I |
| 2269 | GADVASU | 17-12-2008 | 2295 | 3631 / X | 3617 | 87 | 2618.87 | 13.86 | II |
| 2304 | GADVASU | 01-08-2009 | 2138 | 3226 / XI | 3114 | 154 | 2573.79 | 10.8 | III |
| 858 | IVRI | 31-08-2008 | 358 | 2045 / X | 2882 | 22 | 2197.74 | -6.17 | IV |
| 5943 | NDRI | 19-12-2007 | 416 | 2583 | 3232 | 60 | 2154.96 | -8.61 | V |
| 838 | IVRI | 09-07-2008 | 701 | 2990 / X | 2850 | 27 | 2143.37 | -8.97 | VI |
| 3964 | CIRB | 01-08-2008 | 1194 | 4371 PT / V | 3369 | 37 | 2119.55 | -10.32 | VII |
| 4059 | CIRB | 29-05-2009 | 3674 | 4393 PT / V | 2510 | 32 | 2047.38 | -14.29 | VIII |
| 851 | IVRI | 17-08-2008 | 227 | 2045 / X | 3805 | 44 | 1956.66 | -19.98 | IX |

## Set -XIV

| Bull no. | Location | Date of birth | Dam No. | Sire No./ Set No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. Yield (kg) | No of daughter recorded | Breeding Value | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 2357 | GADVASU | 24-07-2010 | P2488 | 1933 | 3559 | 2473 | 51 | 2486.91 | 2.78 | I |
| 6044 | NDRI | 15-01-2009 | 430 | 4371 PT | 3567 | 2469 | 34 | 2479 | 2.43 | II |
| 4196 | CIRB | 10-05-2010 | 3586 | 1153 PT | 3304 | 2505 | 21 | 2474 | 2.27 | III |
| 2369 | GADVASU | 24-08-2010 | P2138 | 5496 | 3114 | 2458 | 130 | 2464.53 | 1.85 | IV |
| 6136 | NDRI | 25-09-2009 | 5517 | 2148 | 4341 | 2413 | 54 | 2423 | 0.14 | V |
| 6066 | NDRI | 08-04-2009 | 402 | 4393 PT | 3505 | 2441 | 6 | 2419 | -0.04 | VI |
| 4093 | CIRB | 10-09-2009 | 3133 | 3255 | 3040 | 2382 | 29 | 2420 | -0.5 | VII |
| 4439 | CIRB | Purchased | NK | NK | 22.0 kg PY | 2353 | 39 | 2363 | -2.36 | VIII |
| 6014 | NDRI | 02-10-2008 | 5234 | 1693 | 3072 | 2344 | 49 | 2353 | -2.77 | IX |
| 4100 | CIRB | 18-09-2009 | 3033 | 2154 | 2971 | 2225 | 26 | 2328 | -3.8 | X |

## Set -XV

| Bull no. | Location | Date of birth | Dam No. | Sire No./ Set No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. Yield (kg) | No of daughter recorded | Breeding Value | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 4354 | CIRB | 05-09-2011 | 4353 (Pur) | Unknown | 3528 | 2645 | 77 | 2589 | 1.67 | I |
| 6007 | NDRI | 15-09-2008 | 5231 | 5396 | 3260 | 2683 | 38 | 2588 | 1.61 | II |
| 2459 | GADVASU | 22-12-2011 | 2489 | 1796 | 4636 | 2611 | 44 | 2587 | 1.58 | III |
| 4328 | CIRB | 14-05-2011 | 3147 | 220 | 2989(4) | 2600 | 65 | 2584 | 1.48 | IV |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2429 | GADVASU | 15-08-2011 | 2138 | 5710 | 3435 | 2601 | 48 | 2568 | 0.86 | V |
| 4363 | CIRB | 24-09-2011 | 3428 | 4915 PT | 3068 | 2608 | 48 | 2560 | 0.51 | VI |
| 4403 | CIRB | 04-01-2012 | 3351 | R-10 | 2981 | 2576 | 39 | 2552 | 0.22 | VII |
| 4324 | CIRB | 19-04-2011 | 4323 (Pur) | Unknown | 3605 | 2564 | 60 | 2546 | -0.04 | VIII |
| 4438 | CIRB | 20-03-2012 | 4437 (Pur) | UK | 3222 | 2527 | 57 | 2536 | -0.42 | IX |
| 6405 | NDRI | 26-01-2012 | 486 | NK | 2743 | 2501 | 55 | 2533 | -0.55 | X |
| 6139 | NDRI | 03-10-2009 | 5650 | 4506 PT | 2828 | 2515 | 54 | 2531 | -0.6 | XI |
| 2371 | GADVASU | 30-08-2010 | 1794 | 1796 | 3053 | 2528 | 64 | 2524 | -0.9 | XII |
| 2412 | GADVASU | 24-04-2011 | 2467 | 220 | 2998 | 2476 | 61 | 2511 | -1.14 | XIII |
| 2417 | GADVASU | 10-07-2011 | 2487 | 2177 | 3565 | 2456 | 84 | 2503 | -1.72 | XIV |
| 6290 | NDRI | 26-10-2010 | 5517 | 4915 PT | 4341 | 2418 | 40 | 2489 | -2.27 | XV |

## Set-XVI

| Bull no. | Location | Date of birth | Dam No. | Sire No./ Set No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. Yield (kg) | No of daughter recorded | Breeding Value | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| M-29 | CIRB | 16-10-05 | 4 P | P274 | 4600 | 2571 | 60 | 2578.94 | 3.82 | I |
| 1053 | LUVAS | 17-12-13 | 683 | M-29 | 3559 | 2561 | 46 | 2567.15 | 3.35 | II |
| 2383 | GADVASU | 13-10-10 | 2489 P | 3267PT/ XI | 4636 | 2553 | 78 | 2546.77 | 2.53 | III |
| 4889 | CIRB | 23-10-04 | S-802 | FT 245 | 4120 | 2535 | 73 | 2532.68 | 1.96 | IV |
| 4592 | CIRB | 28-06-13 | 4353 P | Khali | 3528 | 2512 | 61 | 2518.33 | 1.38 | V |
| 1064 | LUVAS | 19-02-14 | 613 | BI 330/ XVII | 3579 | 2499 | 8 | 2482.85 | -0.05 | VI |
| 6753 | NDRI | 13-07-13 | 470 P | 858/XIII | 3389 | 2443 | 16 | 2471.15 | -0.52 | VII |
| 6379 | NDRI | 17-10-11 | 402 P | 4915PT/ VII | 3505 | 2468 | 39 | 2469.65 | -0.58 | VIII |
| 2467 | GADVASU | 01-04-12 | 2279 P | R-10/XII | 3574 | 2444 | 77 | 2456.79 | -1.10 | IX |
| 4623 | CIRB | 01-09-13 | 4261 P | 1875PT/ VIII | 3506 | 2363 | 8 | 2451.66 | -1.30 | X |
| 6646 | NDRI | 17-02-13 | 6627 P | Not Known | 3533 | 2441 | 40 | 2451.06 | -1.33 | XI |
| 1027 | LUVAS | 28-09-13 | 603 | PC 461 | 3763 | 2434 | 47 | 2448.85 | -1.41 | XII |
| 2501 | GADVASU | 10-10-12 | 1794 P | 1875PT/ VIII | 3053 | 2440 | 88 | 2440.90 | -1.73 | XIII |
| 4705 | CIRB | 22-07-12 | 83 P | B 902 | 3990 | 2453 | 78 | 2439.16 | -1.80 | XIV |
| 6409 | NDRI | 09-01-12 | 490 P | 4371PT/V | 4090 | 2389 | 43 | 2403.92 | -3.22 | XV |

## Set-XVII

| Bull no. | Location | Date of birth | Dam No. | Sire No./ Set No. | Dams best lactation 305 day or less yield (kg) | Daughters 1st Lactation 305 day or less Av. Yield (kg) | No of daughter recorded | Breeding Value | % superiority over LSM (BLUP) | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| M-51 | CIRB | 03-02-2006 | 22 P | 274 P | 4668 | 2528.83 | 68 | 2558.57 | 6.76 | I |
| 2594 | GADVASU | 30-07-2014 | 2221 | 1994 PT/ Set 9 | 3557 | 2515.36 | 85 | 2532.78 | 5.68 | II |
| 2565 | GADVASU | 24-01-2014 | 2522 | 2269/Set 13 | 3287 | 2465.14 | 82 | 2469.72 | 3.05 | III |
| 6942 | NDRI | 23-08-2014 | 6627 | 4439/Set 14 | 3533 | 2402.30 | 51 | 2400.18 | 0.15 | IV |
| Dara | Field | 29-09-2014 | Rani | Not Known | PY 28.9 kg | 2389.05 | 36 | 2393.37 | -0.14 | V |
| M-53 | CIRB | 25-02-2006 | 23 P | FT 328 | 3789 | 2387.87 | 30 | 2388.72 | -0.33 | VI |
| 1148 | LUVAS | 28-04-2015 | 894 | 6066/Set 14 | 3587 | 2375.52 | 30 | 2385.31 | -0.47 | VII |
| 4715 | CIRB | 27-03-2014 | 3351 | 4093/Set 14 | 3059 | 2369.31 | 88 | 2381.14 | -0.65 | VIII |
| 4837 | CIRB | 30-11-2014 | 3417 | 2422 PT/ Set 8 | 3076 | 2365.61 | 47 | 2374.48 | -0.92 | IX |
| 7010 | NDRI | 27-12-2014 | 415 | 4100/Set 14 | 3068 | 2359.41 | 70 | 2370.78 | -1.08 | X |
| Sikander | Field | 15-07-2013 | Rani | Not Known | PY 28.9 kg | 2352.53 | 81 | 2368.49 | -1.17 | XI |
| 2558 | GADVASU | 20-12-2013 | 2279 | 1875 PT/ Set 8 | 3574 | 2347.73 | 26 | 2351.36 | -1.89 | XII |
| 4687 | CIRB | 20-01-2014 | 3156 | 1994 PT/ Set 9 | 3309 | 2346.38 | 67 | 2350.63 | -1.92 | XIII |
| 4733 | CIRB | 14-06-2014 | 4216 | 6044 PT/ Set 14 | 2851 | 2336.61 | 52 | 2346.97 | -2.07 | XIV |
| 2607 | GADVASU | 17-12-2014 | 2605 | 2369/Set 14 | 3899 | 2321.76 | 37 | 2342.03 | -2.28 | XV |
| B1/330 | CIRB | 29-12-2006 | 05B/900 | FT 326 | 4595 | 2295.54 | 32 | 2331.72 | -2.71 | XVI |

# PROGENY TESTED BULLS (1-16 SET)

392/1

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 06-04-1989 | 238 | PQ-1 | 2594 | 2074 | 13 | 2118 | 22.8 | 113 |

3567/1


## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 07-09-1989 | 2408 | 2304 | 2877 | 1813 | 20 | 1852 | 6.4 | 243 |


**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 27-07-1987 | 911 | 644 | 3003 | 1796 | 26 | 1844 | 5.5 | 142 |


**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 20-11-1990 | 474 | 366 | 2878 | 1960.4 | 15 | 1987.4 | 9.37 | 274 |


**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 03-11-1990 | - | PQ-1 | 22.0*PY | 1874.1 | 16 | 1889.8 | 3.96 | 88 |


**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 04-07-1991 | 597 | 766 | 2626 | 1877.8 | 10 | 1876.3 | 3.53 | 248 |

**1153/3**

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 13-08-1993 | 701 | 896PT | 2540 | 1934 | 13 | 1957 | 12.27 | 250 |

**1354/3**


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 12-12-1992 | 762 | 989 | 3088 | 2074 | 6 | 1975 | 13.11 | 108 |

**1061/3**

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 24-09-1992 | 769 | 896PT | 2846 | 1902 | 12 | 1913 | 9.50 | 209 |

**1506/4**


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 25-04-1995 | - | 988 | 3018 | 2065.1 | 12 | 2089 | 18.81 | 248 |

1451/4


GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 10-08-1994 | - | 3567PT | 3401 | 1951.4 | 10 | 1945 | 10.44 | 248 |

1437/4


GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 04-04-1994 | 797 | 636 | 3127 | 1919.1 | 9 | 1904 | 8.11 | 248 |


**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 10-12-1995 | 2762 | 1908 | 3898 | 2143 | 13 | 393.4 | 22.29 | - |


**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 23-10-1995 | 2984 | 988 | 3258 | 1971 | 22 | 263 | 14.90 | 251 |

**1153/6**

## HAU, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 29/09/1996 | 618 | 759 | 2675 | 2022.8 | 21 | 2121 | 13.31 | 250 |

**4506/6**


## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 31-10-1996 | 3527 | 3551 | 3512 | 1981.7 | 10 | 1972 | 9.29 | 123 |


## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 01-10-1997 | 208 | 988 | 2650 | 1931.9 | 14 | 1953 | 6.92 | 248 |


## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 28-10-1999 | 3521 | 2921 | 3437 | 2039 | 17 | 2116 | 17.26 | - |


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 10-02-2000 | 1386 | 1506 | 3170 | 2215 | 6 | 2092 | 15.81 | 9 |


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 20-08-2001 | 1669 | 558 | 2714 | 2357 | 8 | 2300 | 24.89 | 42 |

**4813/8**

## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 17-01-1999 | 3818 | 3966 | 3016 | 2148 | 7 | 2101 | 12.5 | 18 |

**2422/8**

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 19-08-2000 | 1194 | 4371 | 3369 | 2092 | 7 | 2057 | 9.41 | 248 |


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 16-06-2003 | 1884 | 392 | 2938 | 2431.7 | 18 | 2486.61 | 11.73 | 251 |


## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 01-08-2002 | 4066 | 1706 | 3305 | 2539.3 | 7 | 2466.2 | 10.52 | - |


## LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 27-10-2003 | 1050 | 392 | 3194 | 2074 | 13 | 2320.39 | 1.23 | 230 |


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 24-02-2004 | 1835 | 3567 | 3369 | 2074 | 48 | 2320.29 | 1.23 | 423 |

3267/11


CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 27-09-2004 | 2263 | 1419 | 2489 | 2074 | 29 | 2177.81 | 0.20 | 230 |

3591/11


CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 29-05-2006 | 3590 | - | 2598 | 2074 | 29 | 2176.56 | 0.14 | 548 |

**2133/11**

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 09-11-2005 | 2041 | 1354 | 2844 | 2074 | 36 | 2175.40 | 0.09 | 248 |

**2185/12**

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 23-11-2006 | 1898 | 1354 | 3423 | 2074 | 66 | 2341.35 | 0.94 | 241 |

183/12

## LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 03-06-2003 | 1374 | 1354 | 2824 | 2074 | 24 | 2336.77 | 0.75 | 1261 |

2234/13

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 06-03-2008 | 2138 | 5396X | 3114 | 2074 | 117 | 2688.44 | 14.80 | 20 |

**4196/14**

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 10-05-2010 | 3586 | 1153PT | 3304 | 2505 | 21 | 2474 | 2.27 | 841 |

**6044/14**


## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 15-01-2009 | 430 | 4371PT | 3567 | 2469 | 34 | 2479 | 2.43 | 622 |

2357/14

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 24-07-2010 | P2488 | 1933 | 3559 | 2473 | 51 | 2486.91 | 2.78 | 762 |

4354/15

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 05-09-2011 | 4353(Pur) | UK | 3528 | 2645 | 77 | 2589 | 1.67 | 3734 |

2459/15


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 22-12-2011 | 2489 | 1796 | 4636 | 2611 | 44 | 2587 | 1.58 | 638 |

6007/15


## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 15-09-2008 | 5231 | 5396X | 3260 | 2683 | 38 | 2588 | 1.61 | 1289 |

**M-29/16**

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 16-10-2005 | 4 P | P 274 | 4600 | 2074 | 60 | 2578.94 | 3.82 | 5481 |

**1053/16**

## LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 17-12-2013 | 683 | M-29 | 3559 | 2074 | 46 | 2567.15 | 3.35 | 5289 |

**2383/16**

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 13-10-2010 | 2489P | 3267PT | 4636 | 2074 | 78 | 2546.77 | 2.53 | 1819 |

**M-51/17**

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 03-02-2006 | 22P | 274P | 4668 | 2528.83 | 68 | 2558.57 | 6.76 | 7914 |

**2594/17**

**GADVASU, Ludhiana**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 30-07-2014 | 2221 | 1994PT | 3557 | 2515.36 | 85 | 2532.78 | 5.68 | 847 |

# TEST BULL (SET - 18)

**4905/18**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 09-06-2015 | 3633 | 4324 Set 15 | 2726 | 3371 | 15.3 | 49.35 | 7998 |

**4995/18**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 07-12-2015 | 4713 P | M-51 Set 17 | - | 3257 | 16.5 | - | 7998 |

**5147/18**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 01-01-2017 | 4384 | 4592 set 16 | 2373 | 3057 | 16.6 | 45.76 | 7998 |

**1150/18**

**LUVAS, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 01-05-2015 | 782 | 6066 set 14 | 2705 | 3127 | 15.9 | - | 7998 |

**1208/18**


**LUVAS, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 16-10-2015 | 616 | 2045PT set 10 | 3267 | 3437 | 15.1 | - | 7998 |

**1209/18**

**LUVAS, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 17-10-2015 | 708 | 2045 set 10 | 2645 | 3824 | 18.4 | - | 7483 |

**1219/18**

## LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-11-2015 | 787 | 6405 Set 15 | 2709 | 4768 | 21.0 | - | 4228 |

**2645/18**


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 20-06-2015 | 2530 | 1994PT set 9 | 3125 | 3394 | 19.0 | - | 1792 |

**2676/18**


**GADVASU, Ludhiana**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 15-03-2016 | 2759 | 2412 set 15 | 3023 | 3023 | 15.5 | - | 2368 |

**2677/18**


**GADVASU, Ludhiana**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 27-03-2016 | 2548 | 4324 Set15 | 2035 | 3135 | 16.5 | - | 2373 |

2689/18


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 03-07-2016 | 2436 | 1693 PT LUVAS | 1983 | 3151 | 18.8 | - | 735 |

7094/18

## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 08-04-2015 | 6625 | - | - | 3465 | 17 | 69.1 | 1946 |

**7147/18**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 14-08-2015 | 6631 | - | - | 3018 | 15.5 | 54.1 | 2246 |

**7227/18**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 04-01-2016 | 5881 | 6044 Set 14 | 1802 | 3099 | 16.5 | 37.5 | 496 |

**7263/18**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 28-05-2016 | 6625 | 6290 Set 15 | - | 3465 | 17.0 | 69.7 | 2078 |

# TEST BULL (SET - 19)


## LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 18-11-2016 | 708 | 2045 PT Set 10 | 2645 | 3824 | 18.4 | - | 6465 |


## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 01-03-2016 | 2532 | 2412 Set 15 | 3583 | 3583 | 23.0 | - | 2610 |

2737/19

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 04-08-2017 | 2543 | 2383 Set 16 | 2340 | 3180 | 22.8 | - | 1058 |

2759/19

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 09-11-2017 | 2502 | 2133 Set 11 | 1834 | 3340 | 20.7 | - | 2603 |

**5181/19**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 11-04-2017 | 4340 | 3591 PT Set 11 | 2543 | 3428 | 17.9 | 37.61 | 8833 |

**5232/19**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 06-08-2017 | 4322 | 1354 PT Set 3 | 2557 | 3568 | 17.0 | 41.39 | 9633 |

**5246/19**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 20-08-2017 | 4672 | 4371 PT Set 5 | 2166 | 3124 | 15.7 | 44.28 | 9238 |

**5310/19**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 23-12-2017 | 4545 | 6646 Set 16 | 2427 | 4069 | 21.0 | 42.90 | 8588 |

**5320/19**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 15-01-2018 | 4017 | 1053 Set 16 | 2550 | 3340 | 15.2 | 41.49 | 7959 |

**5333/19**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 02-02-2018 | 3485 | 1053 Set 16 | 1916 | 3304 | 17.6 | 38.01 | 8211 |

5374/19

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 12-07-2018 | 4344 | 1148 Set 17 | 2484 | 3244 | 17.4 | 46.16 | 8201 |

7604/19

## NDRI, Karnal

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 18-06-2018 | 6477 | 7010 Set 17 | 2684 | 3158 | 16 | 45.3 | 1343 |

# TEST BULL (SET - 20)

19/20

LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 29-10-2018 | 777 | 2594 Set 17 | 2641 | 3695 | 21.6 | - | 8006 |

1454/20

LUVAS, Hisar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 19-06-2018 | 976 | 183 PT Set 12 | 2965 | 3355 | 17.4 | - | 8063 |

2793/20


GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 06-07-2018 | 2788 | 2467 Set 16 | 2971 | 3339 | 21.5 | - | 1443 |

2831/20

GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 11-10-2018 | 2897 | Virat, Field | 1577 | 4814 | 28.7 | - | 1828 |

**2838/20**


**GADVASU, Ludhiana**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 02-11-2018 | 2502 | 1354 PT Set 3 | 1834 | 3340 | 20.7 | - | 2248 |

**2850/20**


**GADVASU, Ludhiana**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 25-01-2019 | 2973 | 2594 Set 17 | 2623 | 3683 | 20.6 | - | 1078 |

3004/20

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 13-10-2016 | Laado | Rustam, Field | 2475 | 4716 | 26.2 | - | 948 |

5427/20

## CIRB, Hisar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 10-11-2018 | 3633 | R-24 Field | 2726 | 3371 | 15.3 | 49.35 | 8088 |

**5481/20**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 29-03-2019 | 4621 | 4733 Set 17 | 2002 | 3332 | 16.6 | 38.66 | 8323 |

**5500/20**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 15-07-2019 | 4934 | 1148 Set 17 | 2888 | 3271 | 16.5 | 46.45 | 8348 |

**5505/20**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 22-07-2019 | 4251 | 1148 Set 17 | 2407 | 4138 | 22.0 | 50.30 | 1656 |

**5511/20**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 27-09-2019 | 4800 | 6942 Set 17 | 2612 | 3356 | 17.4 | 41.92 | 6376 |

**7584/20**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 30-03-2018 | 6147 | 6253 Non-set | 2435 | 3600 | 16.5 | 44 | 2088 |

**7649/20**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 15-10-2018 | 6735 | 2558 Set 17 | 3203 | 3203 | 13.5 | 51.1 | 2928 |

# TEST BULL (SET - 21)

**109/21**

**LUVAS, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 17-09-2019 | 1068 | M-53 Set 17 | 3128 | 3660 | 16.3 | - | 583 |

**112/21**

**LUVAS, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 29-09-2019 | 943 | 6942 Set 17 | 2735 | 4390 | 17.2 | - | 3581 |

297/21

## IVRI, Izatnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 08-08-2017 | 869 | 4705 Set 16 | 2385 | 3407 | 17.5 | 39.37 | 3715 |

2979/21

## GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 26-11-2020 | 3083 | 2689 Set 18 | 2411 | 3440 | 21.6 | - | 4190 |

2990/21

GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-12-2020 | 2741 pur | 1219 Set 18 | 2104 | 3723 | 21.2 | - | 505 |

3014/21


GADVASU, Ludhiana

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 06-10-2020 | Dhano | Birla, field | 2475 | 4420 | 24.56 | - | 1915 |

**5414/21**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 03-10-2018 | 4593 | 4998 Non-set | 2708 | 3321 | 21.0 | 49.87 | 8214 |

**5629/21**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 29-01-2020 | 4613 | 2645 Set 18 | 2475 | 4180 | 20.2 | 48.66 | 8506 |

**5638/21**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-02-2020 | 5223 | 2234 PT Set 13 | 3364 | 3691 | 19.5 | 30.94 | 6052 |

**5690/21**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 02-08-2020 | 5021 | 4905 Set 18 | 3573 | 4029 | 21.0 | 53.52 | 7257 |

**5723/21**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 07-10-2020 | 5179 | 7227 Set 18 | 4073 | 5170 | 26.8 | 42.51 | 234 |

**5764/21**

**CIRB, Hisar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 22-11-2020 | 4989 | 4905 Set 18 | 2708 | 3644 | 17.5 | 45.04 | 3328 |

**7630/21**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 05-09-2018 | 6852 | M-51 Set 17 | 3343 | 3343 | 15.5 | 41.7 | 2460 |

**7768/21**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 04-02-2019 | 6922 | 2607 Set 17 | 2862 | 3323 | 16.5 | 42.0 | 2070 |

**7990/21**

**NDRI, Karnal**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days or less yield (kg) | Dam's best lactation 305-days or less yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 19-08-2020 | 6626 | 183 PT set 12 | 3394 | 3991 | 18.0 | 52 | 1800 |

# NILI-RAVI

Nili-Ravi – The name "Nili" means BLUE signifying the blue waters of river Sutlej, and "Ravi" originating from Ravi river valley, have amalgamated their unique features over time to give birth to this beautiful breed "Nili-Ravi", also known as "Panch-Kalyani" due to the white markings at 5 distinct spots. This breed with walled eyes has a production and reproduction performance which is at par with Murrah.

भाकृअनुप – केन्द्रीय भैंस अनुसंधान संस्थान
ICAR-CENTRAL INSTITUTE FOR RESEARCH ON BUFFALOES

GUJARAT DAIRY VETERINARY AND ANIMAL SCIENCES UNIVERSITY
2005
KNOWLEDGE FOR SERVICE

## Technical Programme

- Establishment and maintenance of an elite herd of 400 breedable Nili-Ravi buffaloes (200 at each centre).
- Selection and testing of 8-10 bulls (superior germplasm) for each set for breed improvement.
- Production and storage 1000 – 1500 frozen semen doses from each test bull, for future use.
- Maintain a minimum number of 8000 frozen semen doses until the particular SET gets evaluated.
- Evaluation and ranking of bulls on the basis of their progeny performance (first lactation) for selection of top 2 bulls as proven bulls from each set.
- Application of proven bull's semen on elite buffaloes for the production of future sires and replacement heifers.
- Dissemination of semen/surplus males to farmers and agencies involved in propagation and conservation of Nili-Ravi germplasm.

## List of Nili-Ravi bulls (progeny tested 6th-7th set) under Network Project on Buffalo Improvement

### Set –VI

| Bull no. | Dam | Sire | Date of Birth | No. of Daughters recorded | Dam's best lactation 305 days or less yield (kg) | Sires' daughters best average (kg) | Breeding Value (Index Value) | % superiority | Rank |
|---|---|---|---|---|---|---|---|---|---|
| 252 | 900 | 891 | 12/05/11 | 18 | 3777 | 3675 | 2616.82 | 5.93 | 1 |
| 254 | 60 | 916 | 02/06/11 | 17 | 2811 | 3628 | 2579.39 | 4.42 | 2 |
| 251 | 827 | 702 | 24/03/11 | 5 | 3199 | 3158 | 2507.61 | 1.51 | 3 |
| 245 | 841 | Suraj | 07/02/11 | 6 | 3527 | 2963 | 2457.78 | -0.50 | 4 |
| 181 | 621 | 716 | 17/01/10 | 9 | 2929 | 3103 | 2373.09 | -3.93 | 5 |
| 168 | 965 | 802 | 14/11/09 | 15 | 2446 | 2743 | 2301.56 | -6.83 | 6 |

### Set –VII

| Bull no. | Dam | Sire | Date of Birth | No. of Daughters recorded | Dam's best lactation 305 days or less yield (kg) | Daughter Maximum FLMY (kg) | Average Daughter FLMY (kg) | Breeding Value (Index Value) | % Superiority | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| 352 | 134 | 878 | 03/10/12 | 10 | 4050 | 3581 | 2520.60 | 2472.28 | 7.53 | 1 |
| 312 | 940 | 881 | 04/02/12 | 12 | 3317 | 2890 | 2489.84 | 2461.12 | 7.05 | 2 |
| 298 | 828 | 930 | 07/12/11 | 14 | 3979 | 3251 | 2481.14 | 2459.96 | 6.99 | 3 |
| 308 | 81 | 806 | 21/01/12 | 12 | 3746 | 3561 | 2453.25 | 2439.54 | 6.11 | 4 |
| 336 | 822 | 900 | 19/08/12 | 17 | 3348 | 3804 | 2425.00 | 2423.70 | 5.42 | 5 |
| 359 | 118 | 806 | 02/11/12 | 14 | 3530 | 3015 | 2191.71 | 2270.55 | -1.24 | 6 |

# PROGENY TESTED BULLS (SET 1-7)

411/1

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 30-09-1998 | 992 | 112 | 2389 | 1995 | 19 | 2315.5 | 25.07 | 545 |

473/1

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 22-12-1999 | 1039 | N-147/4 | 2324 | 1960 | 10 | 1961.7 | 10.01 | 542 |


**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 24-09-2000 | 47 | N - 1430/4 | 2770 | 1981 | 23 | 2058.8 | 11.24 | 544 |


**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 26-11-2000 | 16 | 177 | 3208 | 2063 | 10 | 2661.9 | 10.85 | 803 |

**674/3**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 06-12-2002 | 300 | 300 | 3350 | 2358 | 10 | 2388.9 | 9.39 | 1189 |

**702/3**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 15-07-2003 | 487 | 375 | 3421 | 2385 | 9 | 2376.8 | 8.88 | 823 |

905/4

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 19-05-2006 | 466 | 528 | 3639 | 2582.11 | 9 | 2561.4 | 15.29 | 1052 |

916/4

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 17-08-2006 | 681 | 576 | 2961 | 2409 | 11 | 2427.7 | 9.99 | 1403 |

03/5

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 29-10-2007 | 650 | 528 | 2866 | 2433 | 11 | 2401.2 | 4.46 | 403 |

27/5

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 13-01-2008 | 828 | 577 | 3979 | 2498 | 18 | 2488.1 | 6.79 | 2379 |

252/6

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 12-05-2011 | 900 | 891 | 3777 | 2519 | 17 | 2616.8 | 5.93 | 363 |

254/6

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 02-06-2011 | 60 | 916 | 2811 | 2513 | 17 | 2579.4 | 4.42 | 2022 |

298/7

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 07-12-2011 | 828 | 930 | 3979 | 2481 | 14 | 2459.96 | 6.99 | 1809 |

312/7

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 04-02-2012 | 940 | 881 | 3317 | 2490 | 12 | 2461.12 | 7.05 | 680 |

352/7

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 03-10-2012 | 134 | 878 | 4050 | 2524 | 12 | 2472.28 | 7.53 | 1990 |

# TEST BULL (SET 8-11)

435/8

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 16-10-2013 | 230 | 03 | 2122 | 3018 | 19.0 | 37.7 | 1436 |

480/8

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 21-06-2014 | 134 | 63 | 2662 | 4050 | 17.5 | 38.8 | - |

**487/8**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 18-08-2014 | 21 | 113 | 3010 | 3115 | 14.2 | 40.4 | 9876 |

**501/8**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 09-10-2014 | 116 | 113 | 2444 | 3516 | 17.5 | 44.2 | 2451 |

507/8

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 26-10-2014 | 287 | 991 | 3089 | 4247 | 21.5 | 39.2 | 3618 |

511/8

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 29-11-2014 | 300 | 27 | 2785 | 3796 | 19.5 | 38.1 | 1957 |

**516/8**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 17-12-2014 | 81 | 113 | 3113 | 3746 | 17.4 | 41.5 | 2972 |

**543/8**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-06-2015 | 900 | 25 | 2198 | 3777 | 19 | 38.1 | 5002 |

551/9


**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 22-07-2015 | 940 | 63 | 1930 | 3317 | 18.7 | 37.1 | 4490 |

556/9

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 10-08-2015 | 366 | R-1 | 2635 | 3277 | 17.4 | 34.3 | 4033 |

561/9

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 25-08-2015 | 367 | 25 | 2958 | 3888 | 17.4 | 34.3 | 6 |

565/9

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 02-09-2015 | 134 | 63 | 2662 | 4050 | 17.5 | 38.8 | - |

579/9

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 26-10-2015 | 827 | 245 | 2386 | 3199 | 15.3 | 41.4 | 1282 |

593/9

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 22-12-2015 | 81 | 168 | 3113 | 3746 | 17.4 | 41.5 | - |

674/9

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 19-01-2017 | 68 | 252 | 2146 | 3161 | 23.5 | 43.6 | 3896 |

705/9

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 10-07-2017 | 115 | 473 | 1117 | 3146 | 16.3 | 35.1 | 2201 |

**710/9**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 25-07-2017 | 398 | 252 | 2784 | 3395 | 16.3 | 33.6 | - |

**728/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 16-08-2017 | 376 | 298 | 2374 | 4018 | 22.0 | 45.1 | 2466 |

**753/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 07-12-2017 | 287 | 312 | 3089 | 4247 | 21.5 | 39.2 | 466 |

**773/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 10-04-2018 | 448 | 312 | 2158 | 3725 | 17.0 | 34.2 | 201 |

**782/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 04-05-2018 | 451 | 298 | 2819 | 4023 | 17.7 | 45.6 | 543 |

**800/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 01-08-2018 | 312 | 308 | 2848 | 3134 | 18.5 | 45.3 | 1042 |

**852/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 14-07-2019 | 294 | 702 PT | 3063 | 3771 | 17.4 | 38.5 | 1705 |

**856/10**


**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 05-08-2019 | 450 | 352 | 3517 | 4202 | 23.8 | 44.2 | - |

**858/10**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 08-08-2019 | 445 | 352 | 2148 | 3422 | 14.8 | 39.6 | 1352 |

**905/11**

**CIRB, Nabha**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-12-2019 | 272 | 916 PT | 2779 | 3556 | 16.8 | 51.81 | 1052 |

912/11

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 11-02-2020 | 605 | 501 | 3631 | 3631 | 17.5 | 41.81 | - |

917/11

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 14-03-2020 | 614 | 507 | 3675 | 5102 | 25.1 | 42.24 | - |

955/11


CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 28-09-2020 | 1073 P | 487 | 2537 | 3240 | 16.7 | 35.76 | - |

957/11

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 03-10-2020 | 362 | 487 | 2310 | 4021 | 18.0 | 33.19 | - |

962/11

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 26-10-2020 | 451 | 411 | 2810 | 4023 | 17.7 | 45.56 | - |

968/11

CIRB, Nabha

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 07-12-2020 | 423 | 543 | 2467 | 3222 | 15.5 | 44.47 | - |

**3087/11**


**GADVASU, Ludhiana**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 28-08-2021 | 378 | 487 | 3533 | 3533 | 16.2 | - | - |

# BHADAWARI

Bhadawari – Habitants of Yamuna and Chambal ravines are known for their small copper coloured body. Their milk has an unmatched flavour with subtle sweetness and high fat% in it. The Bhadawari buffaloes have adapted to the harsh conditions of the ravines with undulating topography, thorny and scanty bushes, climatic stress and draught conditions.

भा.च.चा.अ.सं.
IGFRI

## Technical Programme

- Establishment and maintenance of an elite herd of buffalo breed with a herd strength 75 breedable females.
- Selection and testing of minimum 4-6 breeding bulls in every 24 months cycle.
- Production of minimum 3000 to 5000 frozen semen doses from each test bull.
- Maintain a minimum number of 2000 frozen semen doses until the particular SET gets evaluated.
- Evaluation and ranking of bulls on the basis of their progeny performance (first lactation) for selection of top 20-25% as proven bulls from each set.
- Application of proven bull's semen on elite buffaloes for the production of future sires and replacement heifers.
- Minimum weekly recording of milk yield of individual daughters/ buffaloes at institutional herd / monthly recording in field units over complete lactation(s) with wet average, herd average, percent in milk, lactation length, dry period, TLMY, SLMY (305 days or less, up to minimum of 240 days (All breeds) / 1500 kg in Murrah) and Peak yield, Milk yield per day of herd life (total milk produced from date of birth till completion of 4th or more lactation).
- Monthly testing of milk constituents (Fat%, SNF% and Protein%) and Somatic Cell Count, wherever feasible, at institutional herds.
- Recording of reproductive traits viz., AFC, Service period, Days open, Calving interval, Number of services per conception, Conception rate and Calving abnormalities.
- Health management including udder health, vaccination, de-worming, disease screening, mortality and periodic body weight records

## List of Bhadawari bulls under Network Project on Buffalo Improvement

**Set –I**

| Bull no. | Dam | Sire | Date of Birth | Dam's best lactation 305 days or less yield (kg) | Dam's Peak Yield (kg) | Dam's Milk Fat % | Semen doses available |
|---|---|---|---|---|---|---|---|
| B-78 | 25 | 44 | 22/08/03 | 1114 | 7.0 | 8.0 | - |
| B-79 | 21 | 1 | 25/08/03 | 1100 | 9.0 | 8.95 | - |
| B-84 | 23 | 44 | 13/10/03 | 1200 | 7.5 | 8.02 | - |
| B-87 | 10 | 46 | 27/10/03 | 1178 | 7.5 | 9.7 | - |
| B-89 | 3 | 76 | 22/11/03 | 1355 | 8 | 8.59 | - |
| B-138 | - | - | 08/12/01 | Purchased | | | - |
| B-139 | - | - | 17/02/02 | | | | - |
| B-141 | - | - | 10/10/02 | | | | - |

## Set –II

| Sr. No. | Bull no. | Dam | Sire | Date of Birth | Dam's best lactation 305 days or less yield (kg) | Dam's Peak Yield (kg) | Dam's Milk Fat % | Semen doses available |
|---|---|---|---|---|---|---|---|---|
| 1 | B-122 | 24 | 1 | 24/11/04 | 1444 | 9.0 | 7.73 | 292 |
| 2 | B-143 | 32 | 76 | 29/07/05 | 1300 | 7.5 | 9.15 | 400 |
| 3 | B-147 | 34 | 1 | 10/08/05 | 1446 | 8.5 | 8.55 | - |
| 4 | B-150 | 18 | 1 | 19/08/05 | 1200 | 7.5 | 8.89 | 169 |
| 5 | B-167 | 30 | 44 | 22/10/05 | 1443 | 9.0 | 8.10 | 275 |
| 6 | B-170 | 28 | 46 | 06/08/05 | 1727 | 9.0 | 7.77 | 254 |
| 7 | B-182 | 136 | 44 | 12/04/06 | 1593 | 8.5 | 8.06 | 339 |
| 8 | B-184 | 72 | 76 | 21/07/06 | 1631 | 8.5 | 8.22 | 291 |

## Set –III

| Sr. No. | Bull no. | Dam | Sire | Date of Birth | Dam's best lactation 305 days or less yield (kg) | Dam's Peak Yield (kg) | Dam's Milk Fat % | Semen doses available |
|---|---|---|---|---|---|---|---|---|
| 1 | B-228 | 126 | 84 | 21/10/07 | 1973 | 12.0 | 8.0 | 1397 |
| 2 | B-240 | 164 | 79 | 04/01/08 | 1888 | 9.5 | 10.8 | 872 |
| 3 | B-244 | 94 | 84 | 04/04/08 | 1840 | 9.0 | 8.7 | 1105 |
| 4 | B-331 | 88 | 182 | 03/09/11 | 2000 | 10.5 | 9.6 | 9051 |
| 5 | B-354 | 107 | 170 | 02/02/13 | 1932 | 13 | 9.6 | 1588 |
| 6 | B-366 | 193 | 244 | 25/09/13 | 2375 | 12.7 | 10.6 | 1983 |

# BHADAWARI BULLS (CURRENT SET)

B-524

IGFRI, Jhansi

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 02-02-2020 | 258 | 354 | 1446 | 1970 | 9.8 | 44.2 | |

B-535

IGFRI, Jhansi

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 10-10-2020 | 435 | 240 | 1756 | 1756 | 9.3 | 56.7 | |

**B-481**

**IGFRI, Jhansi**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 03-02-2018 | 195 | 331 | 1456 | 1927 | 9.2 | 45.7 | 850 |

# JAFFARABADI

Jaffarabdi – Dwelling chiefly in the Gir forest, this buffalo breed is the heaviest buffalo breed with high fat% in its milk. Reared mostly by the “Maldharis” of the Saurashtra region of Gujurat, this breed is chiefly dependent on grazing. These buffaloes are mostly reared for ghee due to the high fat content of its milk.

KAMDHENU UNIVERSITY
કામધેનુ યુનિવર્સિટી

## Technical Programme

- Establishment and maintenance of an elite herd of 225 breedable Jaffarabadi females.
- Selection and testing of minimum 4-6 bulls in every 24 months cycle.
- Production of minimum 3000 to 5000 frozen semen doses from each test bull.
- Maintain a minimum number of 2000 frozen semen doses until the particular SET gets evaluated.
- Evaluation and ranking of bulls on the basis of their progeny performance (first lactation) for selection of top 20-25% as proven bulls from each set.
- Application of proven bull's semen on elite buffaloes for the production of future sires and replacement heifers.
- Minimum weekly recording of milk yield of individual daughters/ buffaloes at institutional herd / monthly recording in field units over complete lactation(s) with wet average, herd average, percent in milk, lactation length, dry period, TLMY, SLMY (305 days or less, up to minimum of 240 days (All breeds) / 1500 kg in Murrah) and Peak yield, Milk yield per day of herd life (total milk produced from date of birth till completion of 4th or more lactation).
- Monthly testing of milk constituents (Fat%, SNF% and Protein%) and Somatic Cell Count, wherever feasible, at institutional herds.
- Recording of reproductive traits viz., AFC, Service period, Days open, Calving interval, Number of services per conception, Conception rate and Calving abnormalities.
- Health management including udder health, vaccination, de-worming, disease screening, mortality and periodic body weight records.

## List of Jaffarabadi bulls (progeny tested) under Network Project on Buffalo Improvement

**Set –I**

| Sr. No. | Bull no. (name) | Dam | Sire | Date of Birth | Dam's best lactation 305 days or less yield (kg) | Daughters recorded | Sire Index | Semen Doses Available |
|---|---|---|---|---|---|---|---|---|
| 1 | Laxman | Laxmi | Subiraj | 16/10/03 | 3738 | 87 | 2732.07 | 3417 |
| 2 | Bhagro | 900 | 891 | Purchased | 20 (PY) | 45 | 2672.21 | 6845 |
| 3 | Nagraj | Nagari | Rupnath | 18/12/02 | 2957 | 44 | | 3259 |

**Set – II**

| Sr. No. | Bull no. (name) | Dam | Sire | Date of Birth | Dam's best lactation 305 days or less yield (kg) | Daughters recorded | Sire Index | Semen Doses Available |
|---|---|---|---|---|---|---|---|---|
| 1 | Moti | - | - | Purchased | >3000 | 51 | 2730.36 | 7728 |
| 2 | Haresh | Hitad | Hemalo | 08/02/04 | 2884 | 38 | - | 1790 |
| 3 | Sunder | Sundari | Lailano | 13/07/05 | 2732 | 27 | - | 3014 |
| 4 | Raja | Ranjita | Subiraj | 08/05/04 | 2948 | 48 | - | 5785 |
| 5 | Dhingalo | - | - | Purchased | >3000 | 25 | - | 7191 |
| 6 | Bholenath | - | - | Purchased | >3000 | 80 | - | 1839 |

# PROGENY TESTED BULLS (SET 1-2)

## Laxman/1

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 16-10-2003 | Laxmi | Subiraj | 3738 | 2074 | 87 | 2732.07 | 22.8 | 3417 |

## Bhagro/1

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| - | 900 | 891 | 20 kg (PY) | 2074 | 45 | 2672.21 | 22.8 | 6845 |

## Moti/2

**CBF, KU, Junagadh**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| - | - | - | 2957 | 2074 | 51 | 2730.36 | 22.8 | 7728 |

# TEST BULLS (SET 3-5)

## Nayan(7/10)/3

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 12-06-2010 | Mira | Nagraj set 1 | 4120.9 | - | - | 6490 |

## Abhijit (A1/10)/3

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| - | Hedi | - | 3184.2 | - | - | 5916 |

## Madhav (37/10)/3

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 19-09-2010 | Manisha | Nagraj set 1 | 3895.8 | - | - | 6662 |

## Girish (11/13)/3

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 18-08-2013 | Grishma | Dhingalo | 3028.0 | - | - | 4529 |

## Ronak (09/11)/3

**CBF, KU, Junagadh**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 10-07-2011 | Rita | Gajanan | 3140.0 | - | - | 5140 |

## Raghu/3

**CBF, KU, Junagadh**

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 4570 |

## Chaman/3

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| 3500 | 14045 |

## Babar/3

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) |
|---|
| >3000 |

## Badal (3665)/4

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 6773 |

## Kamlesh (11081)/4

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 1655 |

## Mayur (27/15)/4

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 17-07-2015 | Mina (AM 2/11) | Haresh | 3181 | - | - | 780 |

## Hamir (37/15)/4

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 05-09-2015 | Hedi(AM 4/11) | Bholenath | 3616 | - | - | 9620 |

## Balo (43/75)/4

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 29-09-2015 | Babli(53 /09)/4 | Nayan | 3201 | - | - | 9865 |

## Yuvraj (391566)/5

CBF, KU, Junagadh

| Date of Birth | Dam | Sire | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|
| 29-08-2017 | Mausami(A8-11) | Girish set 3 | 3789 | - | - | 805 |

## Janak (11084)/4

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 6158 |

## Sango(19100)/4

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 2125 |

## Samrat (11086)/4

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 7175 |

## Ranamal/5

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3500 | 455 |

## Nayak (11087)/4

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3000 | 5380 |

## Alok (10376)/3

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) | No. of semen doses available |
|---|---|
| >3500 | 9580 |

31392/5

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) |
|---|
| 4236.3 |

31400/5

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) |
|---|
| >3500 |

31395/5

CBF, KU, Junagadh

| Dam's best lactation 305-days yield (kg) |
|---|
| >3500 |

**31399/5**

**CBF, KU, Junagadh**

| Dam's best lactation 305-days yield (kg) |
|---|
| >3500 |

# SURTI

Surti – With rusty brown to silver gray coat colour, this breed is known for its docile temperament and hence is preferred as a city buffalo. The breed is well known among the landless and marginal farmers of Gujarat as it consumes less feed, thrives well both on stovers and on limited or no green fodder.

RAJASTHAN UNIVERSITY OF VETERINARY AND ANIMAL SCIENCES
BIKANER

।पशुधनं नित्यं सर्वलोकोपकारकम्।

## Technical Programme

- Establishment and maintenance of an elite herd of Surti with herd strength of 120.
- Selection and testing of minimum 4-6 bulls in every 24 months cycle.
- Production of minimum 2000 frozen semen doses from each test bull.
- Maintain a minimum number of 2000 of frozen semen doses until the particular SET gets evaluated.
- Evaluation and ranking of bulls on the basis of their progeny performance (first lactation) for selection of top 20-25% as proven bulls from each set.
- Application of proven bull's semen on elite buffaloes for the production of future sires and replacement heifers.
- Minimum weekly recording of milk yield of individual daughters/ buffaloes at institutional herd / monthly recording in field units over complete lactation(s) with wet average, herd average, percent in milk, lactation length, dry period, TLMY, SLMY (305 days or less, up to minimum of 240 days) and peak yield, milk yield per day of herd life (total milk produced from date of birth till completion of 4th or more lactation).
- Monthly testing of milk constituents (Fat%, SNF% and Protein %) and Somatic Cell Count, wherever feasible, at institutional herds.
- Recording of reproductive traits viz., AFC, Service period, Days open, Calving interval, Number of services per conception, Conception rate and Calving abnormalities.
- Health management including udder health, vaccination, de-worming, disease screening, mortality and periodic body weight records.

## List of Surti bulls (Progeny tested Set I - VII) under Network Project on Buffalo Improvement

**Set – I**

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 1948 | 05/10/91 | 2273 | 1933 | 2578 | 1424 | 19 | 13.11 | 1727.00 | |
| 1949 | 02/11/91 | 510 | 1924 | 2078 | 1324 | 12 | 1.46 | 1545.00 | |
| 1947 | 18/12/91 | 1038 | 1924 | 1810 | 1271 | 15 | -3.71 | 1472.00 | |
| 1946 | 24/03/92 | 722 | 1932 | 2244 | 1207 | 18 | -10.46 | 1357.00 | |

## Set – II

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 1952 | 23/10/93 | 971 | 1940 | 2272 | 1271.73 | 11 | 1.90 | 1275.27 | |
| 1950 | 13/12/92 | 83-16 | 87-02 | 1822 | 1264.27 | 15 | 1.27 | 1270.19 | |
| 1953 | 14/01/95 | 2273 | 1941 | 2578 | 1249.81 | 17 | -0.30 | 1248.39 | |
| 1951 | 24/11/92 | 85-16 | 82-06 | 1822 | 1231.13 | 16 | -2.37 | 1218.49 | |

## Set – III

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 1955 | 12/01/96 | 2145 | 1945 | 2253 | 1270.30 | 22 | 3.59 | 1307.77 | 433 |
| 1961 | 01/11/96 | 2226 | 1947 | 2264 | 1277.58 | 17 | 4.04 | 1317.53 | 381 |
| 1957 | 19/09/94 | 2310 | 1934 | 2255 | 1256.75 | 15 | 2.06 | 1276.34 | 876 |
| 1958 | 27/09/96 | 1001 | 1946 | 2098 | 1108.33 | 14 | -13.23 | 999.00 | 163 |
| 1956 | 07/10/95 | 2333 | 1943 | 2217 | 1275.54 | 17 | 3.85 | 1313.59 | 530 |
| 1959 | 31/12/96 | 2273 | 1946 | 2578 | 1186.40 | 16 | -4.83 | 1142.58 | - |

## Set – IV

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 1963 | 01/11/97 | 2305 | 1918 | 2534 | 1452.28 | 12 | 16.20 | 1486.29 | 842 |
| 1968 | 27/06/00 | 3443 | 1934 | 2395 | 1292.25 | 13 | 3.78 | 1301.86 | 1538 |
| 1969 | 14/07/00 | 2310 | 1938 | 1969 | 1262.88 | 14 | 3.78 | 1301.86 | 1630 |
| 1964 | 04/12/97 | 2273 | 1946 | 2135 | 1280.01 | 14 | 2.72 | 1288.58 | 498 |
| 1965 | 03/02/98 | 3443 | 1949 | 2395 | 1187.68 | 10 | -6.06 | 1185.55 | 350 |
| 1966 | 09/09/98 | 2555 | 1950 | 2095 | 1145.67 | 11 | -10.60 | 1134.86 | 1088 |
| 1967 | 22/05/99 | 2305 | 1919 | 2534 | 1058.80 | 09 | -20.36 | 1066.22 | 2373 |

## Set – V

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 1977 | 10/12/02 | 3590 | 1959 | 1950 | 1951 | 17 | 10.05 | 1538.38 | 1871 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1976 | 11/06/01 | 3600 | 1929 | 2252 | 1484.96 | 08 | 8.88 | 1468.63 | 1342 |
| 1975 | 16/08/01 | 332 | UK | 1800 | 1445.14 | 13 | 6.48 | 1460.48 | 741 |
| 1974 | 15/07/01 | 21 | UK | 2208 | 1402.73 | 22 | 3.58 | 1427.99 | 1137 |
| 1972 | 10/09/01 | 3630 | 1953 | 1848 | 1287.53 | 09 | -6.42 | 1292.26 | 573 |
| 1978 | 13/09/01 | 3760 | 1955 | 2026 | 1313.64 | 20 | -4.65 | 1286.74 | 70 |
| 1971 | 01/08/00 | 2709 | 1931 | 2100 | 1168.14 | 07 | -17.88 | 1209.18 | 1111 |
| 1973 | 09/02/01 | 219 | 300 | 2039 | 1139.61 | 09 | -21.44 | 1153.61 | 1451 |

## Set – VI

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 4302 | 02/11/04 | 3688 | 1966 | 1875 | 1677.50 | 05 | 9.22 | 1627.65 | 160 |
| 4299 | 18/10/04 | 3488 | 1968 | 1860 | 1564.96 | 14 | 2.51 | 1578.87 | 5665 |
| 4229 | 27/07/03 | 3999 | 1959 | 1734 | 1537.72 | 23 | 0.44 | 1545.60 | 3627 |
| 4264 | 06/12/03 | 3822 | 1962 | 1983 | 1514.34 | 20 | -1.67 | 1505.04 | 2281 |
| 4203 | 16/04/23 | 3799 | 1935 | 1908 | 1468.18 | 14 | -5.41 | 1451.12 | 268 |
| 4321 | 18/12/04 | 3600 | 1948 | 2252 | - | - | - | - | - |
| 4323 | 02/01/05 | 3598 | 1965 | 2465 | - | - | - | - | - |
| 25/05 | 24/08/05 | 12/99 | 44/00 | 1562 | - | - | - | - | - |
| 08/06 | 15/03/06 | 14/96 | Akshay | - | - | - | - | - | - |

## Set – VII

| Bull No. | Date of Birth | Dam | Sire | Dams' Best Yield (Kg) | Daughter's Avg. 1st Lactation 305 days Yield (kg) | Daughters recorded | % Superiority | Sire Index/ Breeding Value | No. semen doses available |
|---|---|---|---|---|---|---|---|---|---|
| 4429 | 15/08/07 | 3788 | 1972 | 1686 | 1560.08 | 24 | 5.44 | 1607.03 | 2391 |
| 4392 | 09/10/06 | 3743 | 1972 | 1800 | 1584.37 | 13 | 6.48 | 1600.72 | 1996 |
| 4458 | 08/07/08 | 3836 | 1973 | 2198 | 1536.19 | 15 | 3.188 | 1548.37 | 123 |
| 4373 | 28/02/06 | 3701 | 1949 | 1986 | 1505.09 | 12 | 0.83 | 1506.47 | 1746 |
| 4413 | 27/02/07 | 3908 | 1974 | 1996.5 | 1474.61 | 19 | -1.59 | 1465.24 | 1164 |
| 4403 | 28/11/06 | 3766 | 1949 | 2150 | 1372.29 | 26 | -11.64 | 1275.33 | 3036 |
| 4497 | 30/05/09 | 4194 | 1974 | 1895 | - | - | - | - | - |

# PROGENY TESTED SURTI BULLS (SET 1 - 7)

## 1948/1

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 05-10-1991 | 2273 | 1933 | 2578 | 1424 | 19 | 1727 | 13.11 | |

## 1950/2

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 13-12-1992 | 83-16 | 87-02 | 1822 | 1267.27 | 15 | 1270.19 | 1.27 | |

## 1952/2

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 23-10-1993 | 971 | 1940 | 2272 | 1271.73 | 11 | 1275.27 | 1.90 | |

## 1955/3

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 12-01-1996 | 2145 | 1945 | 2253 | 1270.30 | 22 | 1307.77 | 3.59 | 433 |

## 1961/3

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 01-11-1996 | 2226 | 1947 | 2264 | 1277.58 | 17 | 1317.53 | 4.04 | 381 |

**1963/4**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 01-11-1997 | 2305 | 1918 | 2534 | 1452.28 | 12 | 1486.29 | 16.20 | 842 |

**1968/4**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 27-06-2000 | 3443 | 1934 | 2395 | 1292.25 | 13 | 1301.86 | 3.78 | 1538 |

**1976/5**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 11-06-2001 | 3600 | 1929 | 2252 | 1484.96 | 8 | 1468.63 | 8.88 | 1342 |

**1977/5**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 10-12-2002 | 3590 | 1959 | 1950 | 1951 | 17 | 1538.38 | 10.05 | 1871 |

**4299/6**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 18-10-2004 | 3488 | 1968 | 1860 | 1564.96 | 14 | 1578.87 | 2.51 | 5665 |

**4302/6**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 02-11-2004 | 3688 | 1966 | 1875 | 1677.50 | 5 | 1627.65 | 9.22 | 160 |

**4392/7**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 09-10-2006 | 3743 | 1972 | 1800 | 1584.37 | 13 | 1600.72 | 6.48 | 1996 |

**4429/7**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's best lactation 305-days or less yield (kg) | Daughter's average first lactation 305-days or less yield (kg) | No. of daughters recorded | Index/Breeding Value (kg) | % superiority over contemporary daughters | No. of semen doses available |
|---|---|---|---|---|---|---|---|---|
| 15-08-2007 | 3788 | 1972 | 1686 | 1560.08 | 24 | 1607.03 | 5.44 | 2391 |

# SURTI TEST BULLS (SET 8-10)

**4464/8**

LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-08-2008 | 3701 | 1949 set 18 | - | 1986.0 | - | - | 1525 |

**4529/8**

LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 07-08-2010 | 4289 | 1971 set 18 | - | 1398.5 | - | - | 1946 |

**4542/8**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 28-08-2010 | 4189 | 1971 set 18 | - | 1397.5 | - | - | 2832 |

**4548/8**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 24-09-2010 | 4224 | 1974 set 18 | - | 1573.0 | - | - | 1508 |

**4567/8**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 21-08-2011 | 4330 | 1973 set 18 | | 2054.9 | | | 1758 |

**4578/8**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 23-09-2011 | 4198 | 1974 set 18 | - | 1790.5 | - | - | 2275 |

## 4611/9

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 28-09-2012 | 3908 | 1948 set 1 | - | 1996.5 | - | - | 5123 |

## 4612/9

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 05-10-2012 | 4176 | 1957 set 18 | - | 1964.7 | - | - | 239 |

## 4617/9

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 26-10-2012 | 4330 | 1957 | - | 2055.0 | - | - | |

## 4633/9

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 08-04-2013 | 4194 | 1952 set 2 | - | 1895.0 | - | - | 6929 |

## 4647/9

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 17-11-2013 | 4446 | 4264 set 18 | - | 2091.6 | - | - | 2605 |

## 4648/9

### LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 20-11-2013 | 4434 | 4264 set 18 | - | 1897.0 | - | - | 9139 |

**4712/10**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 31-10-2015 | 4446 | 1950 set 2 | - | 2091.6 | - | - | 3542 |

**4728/10**

## LRS, Vallabhnagar

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 09-09-2016 | 4430 | 1948 PT set 1 | - | 1742.6 | - | - | 3565 |

**4764/10**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 06-10-2017 | 4613 | 1955 PT set 3 | - | 1628.0 | - | - | 2459 |

**4765/10**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 11-10-2017 | 4520 | 1963 PT set 3 | - | 2061.4 | - | - | 1183 |

**4768/10**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 25-10-2017 | 4405 | 1955 PT set 3 | - | 1856.5 | - | - | 1214 |

**4772/10**

**LRS, Vallabhnagar**

| Date of Birth | Dam | Sire | Dam's first lactation 305-days yield (kg) | Dam's best lactation 305-days yield (kg) | Dam's peak yield (kg) | Dam's age at first calving (months) | No. of semen doses available |
|---|---|---|---|---|---|---|---|
| 23-11-2017 | 4482 | 1950 PT set 2 | - | 2070.8 | - | - | 2164 |

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