

National Chemical Laboratory

(Council of Scientific & Industrial Research)

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Publication and Science Communication Unit

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NCL and NARI honoured with prestigious CAIRD award

The second CSIR Award for S&T Innovations for Rural Development for the year 2007 (CAIRD-2007) has been jointly awarded to Nimbkar Agricultural Research Institute (NARI), Phaltan and National Chemical Laboratory (NCL), Pune for the innovation aimed at improving lamb production and enhancing the viability of the Indian sheep breeding industry. NARI and NCL share this award with the National Research Centre on Yak in Arunachal Pradesh.

India has a growing need for good quality meat protein, which in turn, depends on a viable sheep breeding industry. Most Indian sheep breeds are raised for meat production rather than wool and more than 100,000 shepherd families totally depend on sheep rearing in Maharashtra alone. Shepherds' income is directly related to the number of lambs produced by each ewe. NARI and NCL effort was aimed at introducing the fecundity gene *FecB* from the only prolific Indian breed, Garole, into the Deccani breed of Maharashtra using a direct DNA test for detection of the gene. The project has demonstrated that ewes carrying the *FecB* gene produce about 5 extra lambs per 10 ewes compared to ewes that do not have the *FecB* gene.

The new strain of Deccani sheep carrying this gene is named "NARI Suwarna". These ewes have a higher proportion of twin lambs than the ordinary Deccani but retain the looks and hardiness of the Deccani. This improvement is genetic and permanent and translates into an extra income of Rs.400-600 per ewe to the shepherd due to increased number of lambs available for sale. A nucleus flock of 500 NARI Suwarna ewes has been established at NARI. The innovation has also been successfully demonstrated in more than 30 shepherds' flocks in the Phaltan area through dissemination of breeding rams carrying the gene and monitoring closely the lamb production and its economics alongwith the shepherds.

This work was carried out with financial support from the Australian Centre for International Agricultural Research by a team led by Mr. B.V. Nimbkar and consisting of Dr. Chanda Nimbkar, Dr. Pradip Ghalsasi and Ms. Padmaja Ghalsasi along with about 20 livestock supervisors, assistants and sheep herders at NARI and the team led by Dr. Vidya Gupta consisting of Ms. Varsha Pardeshi and Dr. Mohini Sainani at NCL with scientific support from several collaborators from Australia, viz. Dr. Steve Walkden-Brown, Prof. Julius van der Werf and Dr. Jill Maddox from the University of New England and the University of Melbourne.

The award carries a cash prize of Rupees 10 lakh, a citation and a plaque. The Hon'ble Prime Minister of India will present the award to the winners at a special function.



Sitting row (from left) Vidya Gupta, Mohini Sainani, Varsha Pardeshi, Padmaja Ghalasasi. Standing row (from left): Vicky Poole, Jill Maddox, Steve Walkden –Brown, Herman Radsma, Chanda Nimbkar, B.V.Nimbkar, Ian, Pradip Ghalasasi



Sheep breed 'NARI-Suwarna'

National Chemical Laboratory (NCL), Pune India (<u>www.ncl-india.org</u>)

NCL Pune, India is a research, development and consulting organisation with a focus on chemistry and chemical engineering. It has a successful record of research partnership with industry. National Chemical Laboratory (NCL) is a flag ship laboratory of the Council of Scientific & Industrial Research (CSIR) which is the largest network of publicly funded research institutes in India.

Nimbkar Agricultural Research Institute (NARI), Phaltan India (http://nariphaltan.virtualave.net/)

NARI is a non-profit organization and an NGO working in rural India. It develops technologies which provide sustainable and holistic development for rural areas.