Pune: Vidya Gupta, a senior scientist with the National Chemical Laboratory (NCL), received the Council of Scientific and Industrial Research (CSIR) award for Science & Technology Innovations for Rural Development for the year 2007 at the hands of prime minister Manmohan Singh in New Delhi recently.

The honour has been jointly awarded to Nimbkar Agricultural Research Institute (NARI), based in Phaltan, and city-based NCL for the innovation aimed at improving lamb production and enhancing the viability of the Indian sheep breeding industry, a statement released by the NCL said. NARI and NCL share the 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 depend on sheep rearing in Maharashtra alone. These shepherds’ income is directly related to the number of lambs produced each year. NARI and NCL effort was aimed at introducing the 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 (female sheep) carrying the FecB gene produce about five extra lambs compared to ewes that do not have the FecB gene, the statement added.

According to the NCL, 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 breed. This improvement is genetic and permanent and translates into an extra income of Rs 400 to 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 along with the shepherds.

This work was carried out with financial support from the Australian Centre for International Agricultural Research by a team with scientific support from several collaborators from Australia, University of New England and the University of Melbourne.