Press Release (26.9.2007)

Council of Scientific & Industrial Research

National Research Centre on Yak, Dirang
and
Nimbkar Agricultural Research Institute (NARI), Phaltan
alongwith National Chemical Laboratory (NCL), Pune

Jointly Win

The prestigious CSIR Award for S&T Innovations for Rural Development - 2007

DG, CSIR on the occasion of CSIR Foundation day, announced CSIR Award for S&T Innovations for Rural Development - 2007 jointly to National Research Centre on Yak (NRC-YAK), Dirang for "Improvement of Sustainable Yak Husbandry Practices in Himalayan Region" and Nimbkar Agricultural Research Institute (NARI), Phaltan alongwith National Chemical Laboratory (NCL), Pune for "Use of the *FecB* (Booroola) gene in Deccani breed of sheep, to increase lamb production and thereby the incomes of Shepherds". The award carries a cash prize of Rs.10 lakh, a citation and a shield. CSIR had instituted 'CSIR Award for S&T Innovations for Rural Development (CAIRD)' to recognize and honour S&T innovations that have helped transform the lives of rural people.

Announcing the award CSIR Chief, Dr. T Ramasami said that in the Himalayan region of the country, the life revolves around Yak. On one hand the animal is source of products such as milk and wool and service for agriculture and transportation, while on the other, when dead it is used for producing leather, implements, rugs, tents and bones are used for carving etc. A major limitation with this species has been its poor reproductive efficiency due to its inherent problems of late maturity, poor estrus expressivity, seasonality of reproductive pattern and prolonged inter-calving intervals. Drastic decline in yak population in India and all over the world has become a cause for concern. Thus, conservation of yak genetic resources has got worldwide attention. NRC-Yak has successfully standardized the protocol for super ovulation, embryo recovery and transfer in yak. Due to this unique effort, the dwindling Yak population has been stabilized in the states of Arunachal Pradesh, Sikkim, Himachal Pradesh and Jammu & Kashmir. The age for attaining puberty has also decreased as a result yaks

are now producing one calf/year instead of the earlier record of 1 calf/3 years. The rural communities in Yak inhabited states are getting benefited tremendously from this research effort as they get more produce and services by rearing the yak. Further, the Centre has produced the first ever female yak calf "MISMO" in the world through embryo transfer technology.

Dr. Ramasami added that like most other breeds of sheep in India, *Deccani* sheep have a comparatively low reproductive rate, producing one lamb every 10 to 12 months. More than 80% of the income of shepherds rearing *Deccani* sheep comes from sale of lambs. NARI in collaboration with NCL has successfully introduced *FecB* gene in Deccani sheep to enhance lamb production. A new strain of *Deccani* sheep with higher productivity called ‘NARI Suwarna’ has thus been developed. The FecB gene carrier ewes produce twin lambs at every alternate lambing, giving an average litter size of 1.5 compared to 1.0 in the *Deccani*. This increase is high enough to bring about a substantial increase in the shepherd's income and would thus transform gradually the rural economy.

This award to NRC-Yak and NARI alongwith NCL will inspire all those in the profession and business of innovation for rural development in the country not only to accelerate their efforts of innovating more and more but also to implement them successfully at ground level. Such a huge effort would help transform lives of our rural brethren on one hand and bring in vibrancy in rural economy gradually on the other.
