Sustainable dairy farming is emerging as a major alternative to wheat-rice cropping system in Punjab state which is already producing almost 10% of the milk produced with <3% of the dairy animal population in India. Evidently the milk productivity per animal is more than three times of national average in Punjab with some of the herds of progressive dairy farmers reaching milk yield of 8,000 kg/lactation, which is comparable to average lactation yield in dairy developed countries. In fact, faster development of dairy sector is essential to de-accelerate the deterioration of natural resources of sub soil water and soil health of Punjab. Thus, significant opportunities through technological innovations were created for enhancing income of smallholder and rural-based dairy systems in coming decades and hence poverty reduction. The addressed dairy farming technologies include improvement in dairy animal germplasm, cost-effective feeding strategies, shelter management, detecting safety of food of animal origin, zoonotic diseases diagnosis, development of quality meat products and value added milk products as well as tackling toxicities and deficiencies, disease diagnosis, and veterinary care. In brief, keeping in view the expected high demands for dairy products, technological innovations as well as ability to transfer technology from lab to field in dairy farming system is must for facing the challenge of increasing production without increasing the animal population, and bringing down the cost of production for greater economic returns to the farmers of Punjab state.

Biography
Samarinder Singh Randhawa has completed his PhD from C S A University of Agriculture and Technology, Kanpur, India. He is the Director of Research of Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab, a premier veterinary university of India. He has published more than 230 original research papers in referred international and national journals; visited USA, Canada, Brazil, Italy and France for presentation of research papers in the past and to learn animal health programmes. He is a fellow of five National Academies and Scientific Societies and has a professional experience of more than 34 years in Veterinary Sciences. He is also the President of Indian Society for Veterinary Medicine.

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