

## **Changes required to speed up learning and technology transfer in the deer industry**

**By Bruce Small and Neels Botha**

A recent review of learning and technology transfer in the deer industry revealed that several changes are required to speed up learning and technology transfer. The review points out that the deer industry needs better co-ordination and a strategy to affect better learning and technology transfer. Such a coordinated strategy would help the industry address its research needs and the most appropriate means of transferring technology and knowledge to industry participants. Recently formed DEEResearch, the arm of the industry that would set and prioritise its research agenda, could play a major role to get such a strategy in place.

In the review, several priority areas for learning research were identified. These areas should be incorporated into the co-ordinated deer industry research strategy. One of the main learning research needs is to identify and describe the technologies deer farmers want, as well as the learning methods and strategies most suitable to help them learn quickly and with greater ease. Addressing deer farmers' learning needs in this manner would enhance the uptake of new knowledge and technologies.

Currently, a range of methods are used by the deer industry to interact with farmers to help them learn about new technologies and ideas. It seems obvious that if the learning needs of these farmers were known, the existing technology transfer methods may be improved considerably. Yet, little research has been done in the deer industry regarding the learning processes and choices of deer farmers. So it would also be necessary to find out which aspects of each technology transfer method enhance successful transfer and which aspects detract from it.

The review also identified numerous methods by which deer farmers currently access technological information. These included benchmarking projects (such as the Deer Search project), conferences, publications, Internet, field days with scientists, consultants and veterinarians, discussion groups and through other farmers, friends and family, and news reports. These methods, however, are largely applied in an ad hoc manner. Further, technology transfer in the industry has been described by the reviewers as moderately successful but geographically patchy, and better in regard to some technologies than others.

Learning and technology transfer in the deer industry should be approached in a scientific and practical manner. This is only possible if the industry base learning opportunities and technology transfer methods on appropriate social research. It is important, for instance, to find out whom deer farmers have confidence in and trust as reliable sources of information. High levels of trust between technology developers and users go hand-in-hand with successful technology development and adoption. Other factors that impel deer farmers to adopt new technologies should also be explored. For instance, clarity about the relationship between deer farmers' goals and their technology adoption behaviour would help ensure that more innovative technologies are adopted quicker. If farmers were to participate in technology development, they would have the opportunity to align their farming goals and systems with these technologies.

A considerable amount of general learning and technology transfer research has been conducted in New Zealand. Although the deer industry may have some unique requirements, much of this generic research would be relevant. The industry needs a strategy to ensure it makes use of these results. A review is required of the generic literature on learning and technology transfer and an assessment of its relevance to the deer industry needs to be made. This will help to identify the gaps that need to be addressed. New Zealand has the capacity to address those gaps, and this capacity has to be tapped and enhanced within the deer industry. Joint projects between institutions may be sensible in making best use of available expertise. Strategies need to be developed to encourage post-graduate students with relevant research histories and practical experience to come into the New Zealand deer industry and to encourage them to become familiar with adult education principles so that they may better share their knowledge.

Benchmarking and monitor farms are very helpful tools to the industry. The next step is to investigate the reasons why top performers do well. This would further increase the value of benchmarking and monitor farms. So far there has been little research into learning and technology transfer specific to the deer industry.

There are a select few deer farmers who work with scientists, but a new relationship between the users and doers of research must be established. Farmers have knowledge that scientists need. The opposite is also true – scientists have knowledge farmers need. In this new relationship both parties would learn from each other. This has to be a partnership in which both parties care enough about the other so they both listen. It is about dialogue and co-learning. In this manner, scientists and farmers become partners in the development of the industry by sharing their knowledge. Such a relationship would also help focus research into areas considered valuable by farmers and foster trust between research and farming communities.

The uptake of new knowledge and technology by deer industry participants is a sure way to enhance the international competitiveness of the deer industry. New knowledge and new technologies would enable the industry to do things in new and more efficient and effective ways than in the past.