

BUILDING BIGGER, BETTER SHEEP

New Zealand is leading the development of new breeding technologies over KAREN that will secure our future in farming.

A giant leap forward for sheep exports

Called the Illumina Ovine SNP50 BeadChip, this cutting-edge tool pinpoints small genetic differences or Single Nucleotide Polymorphisms (SNP) in the sheep genome. These differences code for a variety of commercially important traits in sheep, such as disease resistance and healthier meat products. The chip will help NZ farmers develop products tailored to an increasingly discerning market, attracting higher export premiums and an increase in value added export revenue.

KAREN cuts the cost of science

KAREN enabled AgResearch to play a leading role in this venture. Because of KAREN, AgResearch hosts a single sequencing database, accessible to all research partners at lightning speeds. Previously each organisation would have separate databases. But now, because of KAREN, AgResearch hosts a single database that assembles, processes, and annotates the data collected. "KAREN has effectively shrunk distance and time, enabling us to

"The future of farming in NZ requires innovation infrastructure like KAREN," John McEwan, AgResearch Senior Scientist



host internationally significant resources right here in Invermay," said John.

This scale of this collaboration, has brought significant cost savings to all organisations involved, largely due to reductions in the duplication of efforts and resources.

NZ capabilities lead the charge

Initial sequencing of the sheep genome was carried out at the University of Otago and Baylor College of Medicine in Texas. Led by John McEwan, the team from AgResearch identified the majority of the 50,000 SNPs - expertise that fast-tracked the project.

FIND OUT MORE ABOUT THE ILLUMINA OVINESNP50 BEADCHIP AT: WWW.KAREN.NET.NZ/SHEEP-GENE-MAP

IMAGE: FREEDIGITALPHOTOS.NET

