

## Egg counting goes digital

## Sandra Taylor

A quantum leap in the technology measuring faecal egg counts is providing ram breeders with a more reliable selection tool for parasite resistance.

Greg Mirams, chief executive of the Techion Group that developed the original Fecpak 22 years ago, said the updated version – FecpakG2 – allowed faecal egg counts (FEC) to be carried-out at high-volume diagnostic labs.

Using digital imagery, the lab technicians are able to analyse the FEC online and provide an auditable result. Sample images are then stored indefinitely so industry has access to historic egg count results.

This information gives breeders the opportunity to see which of their animals are genetically more or less resistant to challenges by internal parasites.

Resistance to internal parasites has a heritability of about 40%.

Coupled with EID and barcoded samples, Mirams said the technology paved the way for faster genetic progress by bringing a whole new level of robustness to FEC breeding data. This would ultimately benefit the commercial breeder and the sheep industry.

Beef + Lamb New Zealand Genetics general manager Graham Alder said a 10% reduction in the effects of parasites and use of drenches benefitted the industry by \$68.7 million every year. The direct benefits from increased resistance came from reduced drench and labour costs while indirect benefits included improved lamb growth rates, reduced parasite-induced scouring and greater resistance to climatic-induced parasite challenges.

At the retail-end of the supply chain United Kingdom supermarket chain Sainsbury's is using the FecpakG2 as part of a project among its global suppliers to better manage parasites and eliminate unnecessary drenching.

Mirams urged commercial breeders to take parasite resistance into account when selecting rams.

"Commercial farmers have an opportunity to utilise breeding as a tool to reduce their reliance on drenches alone. It's the way things are going."

Mark Young, from B+LNZ Genetics, said commercial breeders should not be scared off selecting for low FEC by those who claim it reduces productivity.

"A weak antagonistic relationship is easily handled by modern selection indexes allowing breeders to increase productivity and reduce the impact of parasites on sheep."

Mirams said commercial farmers could use the technology to monitor parasites without the need to use a microscope or analyse the sample themselves. As part of the package, farmers can also receive prompts reminding them it's time to test their animals and warn them when climatic conditions were favourable for an outbreak of parasites.

While the focus is on faecal egg counts, Mirams said the technology could also be used to set-up online animal health programmes for its users.

From Techion's point of view, the technology meant they were able to provide a FEC service to farmers around the globe. They are now doing egg counts from sheep all over the world thanks to digital imaging and the internet.

Mirams said the internet and its associated technologies is set to transform farming in this country, the same way aerial topdressing, electric fencing and composites have done in the past.

"The next wave is the internet. It is the engine room that sits behind all of this stuff."

More? Go to www.techiongroup.co.nz/products/ fecpak

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