K. Chug, 'Animal death toll ends cloning trials'. *The Dominion Post*, (2011).

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Animal death toll ends cloning trials

Unacceptable death rates of laboratory animals have forced AgResearch to end its cloning trials.

But the science agency says it will continue to create more genetically engineered animals using new research methods.

The state research organisation has issued reports into trials conducted at its Ruakura centre that detail chronic arthritis, pneumonia, lameness and blood poisoning among the causes of cattle, sheep and goat deaths.

The reports, made available to The Dominion Post under the Official Information Act, refer to trials including those carried out on genetically engineered animals being developed to produce a kind of super milk, as well as animals being cloned.

Other trials where deaths occurred included those looking for resistance to eczema in sheep, exploring feeding motivation in pregnant sheep, and collecting tissue from genetically modified embryos.

Applied biotechnologies general manager Jimmy Suttie said that after 13 years of studying how to prevent abnormalities forming in cloned animals, AgResearch had ended its cloning research.

"The decision was made, enough is enough."

Only about 10 per cent of cloned animals survived through the trials, with the main problems being spontaneous abortions and hydrops – where a cow's uterus filled up with water, leading to the mother being euthanised as well.

Animal Ethics Committee reports from Ruakura show that 16 foetuses or calves from mid gestation onwards either spontaneously aborted or died in the neonatal period last year.

Another 10 foetuses or calves were euthanised, as were 14 cows during last year's cloning trials.

Although cloning trials would no longer be conducted, AgResearch would continue to develop transgenic cattle, sheep and goats. Dr Suttie said new technology using embryonic stem cells was unlikely to cause the same death rates as cloning.

However, at only four months into the research, it was difficult to say how successful the trials would be. "There is a step that is very similar [to cloning], so the losses are similar in the first generation of transgenic animals. However, once the animal reproduces it does that the same as any other animal."

Last year, two out of 12 kids that were delivered at term in a trial to develop transgenic goats died at birth. One suffered from chronic arthritis in its front legs.

Four other animals died or were euthanised in another trial to produce transgenic cattle.

SAFE campaign director Hans Kriek said he did not believe New Zealand had seen the end of cloning research.

"While the cloning has been halted for now, it just takes another company to ask for more research."

Genetic engineering trials would also cause unnecessary suffering to animals, but would continue to be conducted in attempts to make money, he said.

"It's absolutely not going to be different. There will be a different set of circumstances, but there will be problems."

However Dr Suttie said AgResearch's work would result in benefits to New Zealand.

"We're trying out new technologies, and new opportunities to add value to our primary products going forward."

AgResearch is developing transgenic cattle, goats and sheep to produce proteins that cannot be readily produced in any other way – the trials include creating animals that will produce proteins with pharmaceutical benefits.

One goal was to produce a drug like Herceptin, but one that was more cost-effective and readily available. "There's very definitely a human benefit associated with this kind of research."

The work was being done ultimately for the benefit of humans, but Dr Suttie said scientists took animal welfare standards and ethical issues very seriously.