

The Deer Progeny Test: Initiation, goals and drivers

J.F. Ward, J.A.Archer, G.W. Asher and J.M. Everett-Hincks, AgResearch, Invermay

Corresponding Author: J. F. Ward (jamie.ward@agresearch.co.nz)

The need for productivity improvement is the key New Zealand Deer Industry since the inception of DEERSelect in 2005. To remain competitive with other land use options and meet its goal of "More deer, heavier and earlier", the industry needs a cohesive strategy to make better use of existing tools for genetic selection and harness or develop new ones. The national deer genetic recording system (DEERSelect), was introduced in 2005 has not experienced the desired uptake or across herd linkage owing to a lack of sustained publicity, inconsistent breeding goals and insufficient exchange of genetics between breeders. To address these issues the Deer Progeny Test (DPT) was initiated in 2011 to provide an integrated genetics program to the whole New Zealand deer industry. The DPT aims to: improve sire linkage between recorded breeding herds, compare red deer, wapiti (and crossbreds) in to an across herd evaluation where maternal and terminal genetics will be evaluated under commercial conditions. The major focus of the project is venison quality and quantity as venison provides 80% of deer industry export revenue. The DPT is funded by AgResearch, DEERResearch, Alliance and Landcorp and is advised by a committee of industry representatives and researchers. The two commercial farms are Whiterock Station (Canterbury, high country) and Invermay Research Deer Farm Otago, hill country) where between them 821 hinds were artificially inseminated (AI) with semen from 9 maternal and 5 terminal sires. It is expected that 560 progeny will be born during November. Male and terminal female progeny will be evaluated for a range production and carcass traits from weaning until slaughter in 2012; while productive life will be evaluated for maternal females. The DPT is partnered by 8 recorded industry breeder herds that provided the sire semen, and are recording core traits in parallel with the 2 DPT farms. The DPT is planned to run for at least 3 cycles, with the AI for cycle 2 beginning in March 2012. The DPT will be monitored annually by industry and will be reviewed against a set of 12 key performance indicators, one critical factor in the continuation beyond 3 cycles will be sire linkage between breeders.