

Banking with genetics

Performance breeding important

BREEDING FOR performance has never been more important now the New Zealand deer industry is coming of age, Ken Drew of Invermay Agricultural Centre told farmers at TDF's Mossburn field day in May. He says farmers should decide what their breeding objective is and stick with it.

"Don't become a seasonal fashion follower."

When breeding your own replacements yearling hinds determine progress, but he says in most situations not many replacements are required.

"A herd of 100 hinds only requires 10 to 15 yearling hinds to go into the herd each year, if it is assumed the hinds live to about 12 years before culling and there is 2 to 3 per cent mortality a year."

"So why not breed the best 35 hinds to the most appropriate Red stag and retain most of the female progeny in the herd? This leaves 65 hinds to be bred for meat and antler velvet production."

With a national herd of one million deer, Drew's policy says that from the country's 636,000 hinds, only 222,000 are needed to breed replacements.

"There is tremendous scope for improvement by using the best of our Red stags or by using the best of the European stags," he says. "Either way, selection must be done on performance rather than appearance."

He says there is wide variation in performance quality between stags. Appropriate performance records are essential once breeding objectives become clear.

"Invermay's Peter Fennessy has shown that if velvet antler is the breeding objective it is possible within the New Zealand Red deer strain to increase velvet yield by .25 kg a generation if breeding stags used are the top 3 per cent," he says.

The performance testing of progeny from top performing stags is an excellent way of comparing genetic merit because all progeny are subject to the same feeding and management.

"The New Zealand Deer Develop-

ment Council (NZDDC) is planning to use this procedure to compare stags and is using AI as a convenient method of generating the calves from the base herd of hinds."

Drew says although AI has come a long way and conception rates are often between 50 to 80 per cent in Red and Fallow deer, there are relative failures. "It pays to budget conservatively and consider anything above 60 per cent a bonus."

He says some of the European strains of Red deer introduced to New Zealand have a lot to offer, but performance evaluation was often difficult because something like "weight-for-age" may be distorted by preferential feeding.

"We need to compare like with like and the best way to do that is by including a few Europeans in the NZDDC sire development programme.

"The best European stags can be expected to improve our base Red deer herd but in most cases will lead to an increase in mature body weight of 30 to 40 kg. Farmers need to plan for that change which will mean a reduced stocking rate."

On the subject of terminal sires for venison and velvet, Drew says if 35 per cent of Red hinds are enough to generate replacement, there are more than 400,000 hinds available to mate to a terminal sire.

"This is where Wapiti genes look attractive," he said. "I see no real conflict between Wapiti and European Red deer breeders for a place in the sun. They will be serving different markets. All the Wapiti hybrid progeny will go for meat or a few males retained for specialist velvet production."

He said some farmers were buying weaner hinds at low prices intending to grow them out to slaughter as yearlings. Drew says it would be better to do that with hybrids.

There is a 50 to 60 per cent gain from half bred Wapiti/Red/ and 25 to 30 per cent from quarter bred Wapiti/Red.

"It is always going to be more difficult to market a 45 to 50 kg carcase than a 60 to 65 kg one," he says.

"Using Wapiti hybrids as terminal sires will provide some animals with greatly superior velvet antler performance. Peter Fennessy calculated that by using average hybrid sires the progeny at 4-years old should produce about .5 kg of velvet more than Reds and the figure climbed to .9 kg extra if using the top 3 per cent of hybrids as sires."



Drew says New Zealand farmers can improve the quality of their breeding herds by using the best performing Red deer sires (NZ or European) to generate replacements from one third of the herd.

"Two thirds of our hinds could be mated to terminal sires like Wapiti hybrids where all the progeny go for meat and velvet antler. European stud breeders and Wapiti hybrid breeders are business colleagues, not competitors, because they address different markets." □

HINDS FOR MEAT PRODUCTION

Age	Red deer	Carcase weights (kg)	
		¼ Wapiti/Red	½ Wapiti/Red
15 months	48	60	73
27 Months	55	72	90