Drenching Mr Brackenridge's can of worms

Invermay Bloodtyping laboratory manager Mike Tate replies

MR BRACKENRIDGE'S article is useful for breeders in that it provides a litany of examples of how not to use and how not to interpret hybrid identification test results.

What is disturbing is that he apportions the blame for these inaccurate interpretations, not on breeders who are misinterpreting the blood test results to their own advantage, but on scientists for making this new breeding technology available to the deer industry.

The Invermay Deer Blood Typing Laboratory has no intention of withdrawing the Hybrid ID Test which is of genuine value to many deer breeders. Ironically, the monetary returns to Invermay for providing the test are very small.

In my opinion it would be wrong for us to withhold this, or any of the other spin-offs of genetic markers research which are potentially of value to the deer industry.

A Pedigree Test similar to that used in the racing and cattle industries is a second recent result of the research. If some deer farmers do not find a test of value they are under no compulsion to use it.

The main mistake Mr Brackenridge makes is to ignore the statement which he admits is always made with test results: The Invermay Hybrid ID Test is powerful at identifying hybrids.

However, if no hybridisation is detected, this does not guarantee purity. Invermay has never, and will never claim or support a claim on the basis of a single test result that an animal is 'pure'.

This is not 'a cute' way of saying something — it is an honest statement of the situation. The term 'pure' has as many definitions as there are breeders. If breeders advertise an animal as pure Red, based on a range of evidence (which may or may not include blood typing) then this is their own assessment and not ours.

The best way to think of the Hybrid ID markers are as four additional characters which distinguish Elk (North American Wapiti) and New Zealand Red deer, except that unlike other external markers like body size, antler form, rump patch size, or gait, these are internal blood differences.

With the right equipment, blood samples can be classed into those which clearly show hybridisation and those which show no evidence of hybridisation. This information adds to the information gained from visual appearance, performance data and pedigree data, but does not replace it.

What Mr Brackenridge suggests is that Invermay has encouraged breeders to ignore all other data and to use the blood test as a single standard. This is quite untrue, and if anyone believes it they should read some of our literature on the test.

By the way, if tests for hybridisation involving other species are required, eg Sika, Pere David, Mesopotamian and European Fallow, they can be done (but you must ask).

Another area of serious confusion presented by Mr Brackenridge is his discussion of standards of purity. He suggests animals with a small proportion of hybridisation derived by back-crossing hybrids with Red deer should at a certain point be called pure Red deer.

Remarkably, after saying this he gets upset when a few of these animals blood type as hybrids.

If you consider a low level of hybridisation acceptable, then you must also accept that occasionally evidence of this will show up. Genes do not disappear just because a breeder thinks they should.

Hybrid ID tests on some imported deer strains, such as the one shown by Mr Brackenridge, reflect what is known historically and what is shown in their appearance — that some strains of European Park deer derive from a mixture of deer species and subspecies.

This fact should have no negative impact on their value, and indeed it may be an advantage, but this will only be proven by farm performance records.

In my opinion, the very real problems which Mr Brackenridge and other breeders are experiencing have nothing to do with the value of blood typing.

Some breeders initially grasped blood typing as the ultimate standard for marketing all sorts of things and have belatedly realised that it does not, in fact, provide exactly the results that they want for their deer.

This does not mean the test is useless. It has a continuing valuable role to play. Along with other measures, it helps some breeders to maintain herds essentially free of hybridisation and to compare fairly the performance of deer within strains.

Mr Brackenridge draws parallels with the cattle industry, but the deer industry is not the cattle industry.

I have yet to see a five generation pedigree in deer which he suggests should be used as the basis of 'purity'. Indeed, our tests of parentage records in farmed deer show they can have a high level of inaccuracy.

Blood test results can play an important role in redressing these problems. Test results are most useful and efficient when groups of animals are examined in conjunction with the appearance, production and pedigree data.

A good example of the appropriate use of blood test results in this way is the imported Canadian Elk (Wapiti) registration scheme which has been put together by the NZ Wapiti Society.

The Invermay Hybrid ID test is also being used by laboratories in Canada and the USA to help avoid hybridisation between introduced Red deer and natural populations of Wapiti (Elk).

My suggestion to all breeders or groups is to consider carefully how the Hybrid ID test or Pedigree Test might assist in achieving their long term breeding aims.

If you need information contact Bruce Kyle, Invermay's Blood Typing Consultant, Ph. (03) 4893809. If, after talking to Bruce, the tests do not appear of value, don't use them. □