

Advances in New Zealand farm management to enhance deer production to fulfil international market demands

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The New Zealand industry has matured with the development and launch of new venison marketing strategies, the CERVENA[®] and ZEAL[®] programmes.

Both rely on industry-agreed quality assurance standards in transportation and farm accreditation with emphasis on guaranteed young age, and quality farm management systems. Processing, packaging, freight-forwarding and point-of-sale assurances are reinforced by ISO 9002 certification with emphasis on food safety and product specification.

Increasing supply of chilled product places demands on the farm to meet continual supply of venison particularly in the 55-65 kg carcass ranges. Farmers have invested in outstanding East European red deer (*Cervus elaphus*) genotypes to improve size and quality of breeding hinds. Artificial insemination, and embryo transfer programmes, are used by leading breeders to enable the rapid spread of superior genotypes. Increasingly, commercial producers incorporate the flexibility of wapiti (*Cervus elaphus*) hybrid sires for the benefit of faster growth rates to meet premium product specifications. Female hybrid yearlings will grow to required live weights in 15 months. A significant cull of breeding females has occurred, improving herd production potential and genetic quality.

Average herd sizes have increased markedly. Breeding herd management incorporates ultra-

sonic pregnancy scanning, and shortened and advanced breeding seasons, to allow improved grazing management of pastures, consequently improving weaning live weights. The practice of feeding to seasonal target live weights over the year is widespread. Nutritional demands are better served with development of preferred pasture species with a shift to conversion of surplus pasture as wilted silage or haylage. These high-quality cost-effective feeds are ideal for overwintering or strategic supplementation.

Animal health and welfare issues are central to on-farm quality assurance schemes. The national Tuberculosis accreditation scheme and testing technology has combined to reduce tuberculosis incidence to less than 0.04%. Individual stock identification allows meaningful performance recording systems to aid management decisions. Deer production is refined with focused control of parasite and trace element deficiency. Vaccination programmes, including the prevention of Yersiniosis, are routine. A national velvetting certification scheme has evolved ensuring that farmers are trained by veterinarians and supervised in appropriate analgesia and removal techniques. Antler products are graded and handled to new standards of quality. The industry's maturity in all aspects is underpinned by commitment to consumer demands and a balance of deer requirements, quality production and welfare considerations.