

# BREEDS



## An appraisal 113

*Ken Drew gives an appraisal of the breeds of deer most important for farming in New Zealand. Red deer and Fallow deer are the two main species of importance in New Zealand.*

MUCH HAS been written about the good features of Red deer for farming. Following is a summary of the major attributes of this animal:

- Exceedingly adaptable to a wide range of conditions and environments.
- Relatively disease resistant.
- Easily managed after a period of training.
- Shows of high rate of growing during the pasture growing season.
- Has a very low carcass fat content when under three years of age.
- High levels of meat production/ha of pasture.
- Produces valuable velvet antler.
- Venison is a high value game product.
- The deer hide is tough and light and is an excellent material for the production of high value suede fashion garments.

- Produces many other valuable by-products (sinews, tail, eye teeth, offals and blood).

### Wapiti

The Wapiti is native to North America and Eastern Europe and is up to twice the size of the Red deer. The animal was introduced into the south west of the South Island this century but due to interbreeding with Red and some likely inbreeding we have very few animals left in New Zealand that are of good Wapiti type. A research herd of captured New Zealand Wapiti has been established at Invermay to study body and antler growth and crossbreeding (using Wapiti bulls over Red hinds). Being a much larger animal than the Red deer, Wapiti bulls generally grow bigger antlers and the velvet antler in addition to being heavier, will usually be of superior quality as judged by size,

shape and main beam thickness. As meat production develops in the deer industry, the high rates of growth found in well fed Wapiti could be of benefit to the deer farmer.

Although our research into the comparative production from Red, Wapiti and Wapiti x Red deer is at an early stage, I will present our most recent information about calving and growth rate. Table 1 gives the reproductive performance from the three groups in the 1980/81 season.

### Wapiti cross

Since all the figures of calves weaned per 100 breeding females were around 80 per cent the situation looks favourable for crossbreeding. Although no difficulties were seen in 1979/80 crossbred calvings a few calves in 1980/81, born to small hinds, did have difficult births, mainly because of their long legs.

It would be wise to select the largest hinds and to restrict their feed supply in the last month of pregnancy when mating to a Wapiti bull. More information is required from Invermay and commercial farmers before crossbreeding can be recommended in terms of reproduction.

The growth of the three breed types is shown in Table 2.

The crossbred stags grew 18 per cent faster and the Wapiti 52 per cent faster than Red stags in the same group. In earlier work at Invermay (with fewer animals) crossbreds grew 38 per cent faster than the Red deer of the same age. There could be important sire effects within the breeding groups and much more information is needed in order to assess any advantage of crossbreeding. Some extra caution should be used when dealing with Wapiti and crossbreds in the yards in that because of their size any flailing feet can do a lot of damage.

Table 1

### Calving performance (1980/81)

|                         | Red x Red | Red hind x Wapiti bull | Wapiti x Wapiti |
|-------------------------|-----------|------------------------|-----------------|
| No. of breeding females | 31        | 40                     | 29              |
| Calving (%)             | 90        | 85                     | 90              |
| Calf mortality (%)*     | 7         | 9                      | 8               |
| Weaning (%)             | 84        | 78                     | 83              |

\* Deaths were mainly in first week of life.

Table 2

### Liveweight measurements in three breed types (males only)

|                   | Red x Red | Red hind x Wapiti bull | Wapiti x Wapiti |
|-------------------|-----------|------------------------|-----------------|
| Liveweight (kg)   |           |                        |                 |
| Weaning (24/3)    | 51        | 56                     | 75              |
| Yearlings (23/12) | 95        | 106                    | 138             |
| Liveweight gain   |           |                        |                 |
| Oct 7 to Dec 23   | 297       | 349                    | 450             |
| g/day             | 100       | 118                    | 152             |
| Relative gain     |           |                        |                 |



**Invermay Fallow deer weights**

| Animals         | Age/Season | Weight (kg) |
|-----------------|------------|-------------|
| Weaned fawns    | 3½ months  | 20          |
| <b>Females:</b> |            |             |
| Yearlings       | 18 months  | 40          |
| Adults          | June       | 43          |
| <b>Males:</b>   |            |             |
| Yearlings       | 18 months  | 51          |
| Adults          | March      | 75          |

## Fallow

Fallow deer on farms are mainly found in the North Island and by far the biggest concentrations are at South Kaipara. The animals are much more nervous in disposition than Red deer and this is a particular problem when herding and yarding. In recent times, however, work at South Kaipara and at Invermay where there is a small experimental herd, has led to management procedures that are satisfactory for Fallow.

Velvet antler from Fallow deer is not well regarded by the trade and if it is to be harvested at all it must be cut at a very early stage of growth. The main attribute of this animal is the highly regarded carcase from yearling bucks. These animals will reach about 50 kg

at 15 months giving a clean carcase weight of about 28 kg.

Fallow deer information relevant to the northern part of the North Island is becoming available through the deer research group at the Ruakura Research Centre (Mr Asher and Dr Adam) and the following table of weight for age information from the

Invermay herd has been made available from Dr Moore.

Slaughter at the yearling stage would seem to be appropriate because the animal is approximately 65 to 70 per cent of ultimate body size at that age. Yearling Red stags on the other hand are closer to 50 per cent of mature body weight.