

In 1983 Orokonui was set up as a joint venture by MAF and the Lands and Survey Department to farm NZ Wapiti type animals (TDF31).

Farming policy included upgrading the NZ Wapiti herd by mating with Invermay's imported Elk and the consolidation of a purebred Canadian herd using the best genetic material available. This has allowed the development of an off station research project where comparisons between breed-types can be made from performance records. Significantly the property is run on commercial rather than purely research lines.

These opportunities have required the development of specialised yarding and handling facilities more suited to Wapiti type animals than Red deer, bearing in mind the reaction of these large animals to the imposition of yarding stress, constricted space and the "things" required of them once they are confined in the crush or handling area. Tony Pearce, Invermay Deer Group, reports.

## Wapiti handling at Orokonui

DURING THE past year the average Orokonui Elk x NZ Wapiti male (now 14 months old at 175 kg) or NZ Wapiti (two to five years old 220-360 kg) has routinely been weighed (four times), Tb tested twice, blood sampled (three times; Copper level, per cent hybridisation, Tb status), faecal sampled, dewormed, regrowth removed, drenched and vaccinated, while its no less potentially belligerent sister further contributes to advances in deer husbandry which includes trials for synchronised mating, progesterone and blood assays to determine pregnancy, and all the routine management practices.

These animals are handled frequently, often on a one to one time consuming basis, and our facilities reflect this in their design as a handling rather than a "processing" complex.

Also, the nature, rather than the temperament, of these animals is quite different from Red deer. The common experience is that Wapiti and their hybrid types are extremely placid under farmed conditions and easily moved in paddock and laneways. In yarding, however, particularly if the facilities are complex and do not readily create a simple flow through impression,

some animals become extremely nervous. This can be quickly translated to stubbornness, with the animal backing into the corners of smaller pens and confronting the handler, or else standing in the middle of large pens and refusing to move at all.

This is then the time when all the bad rumours about handling Wapiti start, and in my experience 80 per cent of those often quoted are either imaginative hearsay or are simply handler errors and failure to read the situation and the animal's precise and predictable reaction to it.

To reduce "operator initiated" problems the Orokonui yard design concentrates on a simple flow through system centred on a race, scales and crush. The shed requires two people for weighing and crush tasks, but yarding, penning and drafting can be simple, quiet, one person functions.

### Preparation

Before yarding, animals can be mustered through one of two internal raceway systems or any of four paddocks into a spacious 'keyhole' area some 400 m from the shed complex. This doubles as a milling

yard or a holding area often used to split up groups of velveting stags and bulls or for cows and calves to settle down well away from the noise and activity of the shed before being yarded. In retrospect the highly regarded Mesopotamia milling yard concept may well serve Orokonui especially as animal numbers increase.

On leaving the keyhole complex, animal groups move into a narrowing raceway system 4.26 m (14') wide at the shed turning two sweeping corners before entering the outside yard and shed proper. The animals in the raceway can be quietly walked into the shed using the natural tendency of the herd to swing around corners rather than breaking back. Wapiti type animals on the whole do not charge fences under pressure, but raceways, corners and gateways are emphasised by sighter boards and fence respect is reinforced by widespread use of electric outriggers and electric subdivision throughout the farm. The time taken to split the herd into suitable size groups for the shed is well spent as overcrowding in pens remains the single biggest problem in handling these large animals that can, under stress, move very quickly and unpredictably. ▶

## YARDS

### ▷ Yards

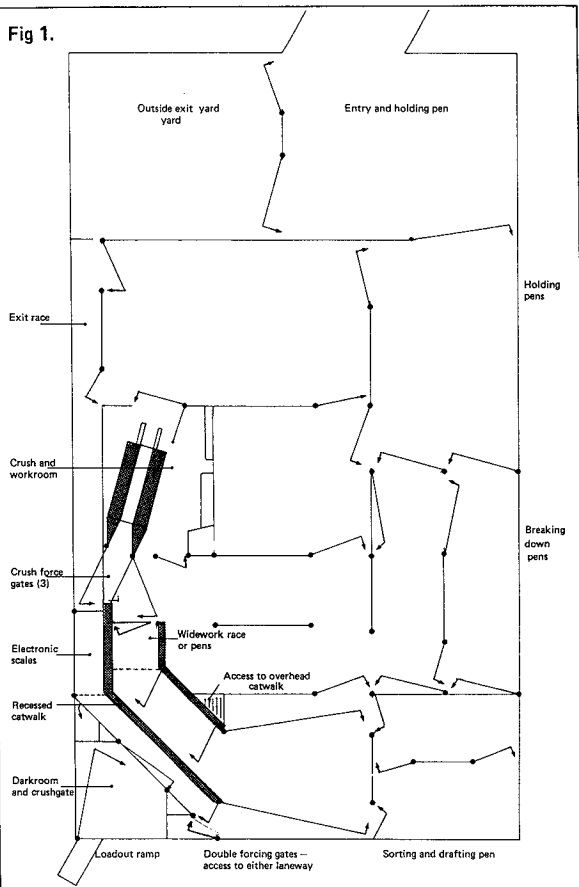
Within the shed, yard layout (Fig 1) has been designed to initially provide an open structure allowing the group to circulate throughout and then either from the overhead catwalk system, or from the ground be quickly contained within a series of holding pens. Yard walls are solid boarded for 1.2 m, and then open boarded with 150 mm gaps to the catwalks. This open view plan allows visual contact throughout the shed reducing crowding and trampling when handlers enter pens or panic when single animals are in pens after drafting. This has proven to be very successful and with hindsight should have been applied to the steelframed plywood gates as well. However, some problems have shown up at weaning when cows and newly separated calves remain in visual contact and may not settle.

Final handling, sorting and moving animals into the crush, scales or vet pen is easily done using a plywood shield in a small sorting pen allowing the animal to use its natural inclination to run past the handler and move up the raceway. The shield is used as a means to quietly come within the animal's 'comfort zone', focus attention on one animal at a time, draft and block the remainder of the group, or at worst melt into the background if the animal has misread any of these movements and becomes unruly under stress. Any challenge can be handled quietly and confidently.

### Raceways

The double raceway system, separated by a common recessed catwalk serves two functions. Either as access to the crush, or normally via the narrow (600 mm) race over Donald electronic platform scales. This raceway is used as a bulk handling facility (five to six animals) from above or can be opened to allow Wapiti to move from the far corner of the shed into scales or crush without hesitation. The large raceway can be subdivided into two small square pens (1.2 x 1.2 m) for Rompun tranquillising the mature bulls, or else working with weaners for normal drenching, vaccination etc. Weighing has been simplified by allowing the animals to stand on the weigh platform on a rubber mat where they quietly watch the operator thereby avoiding difficulties associated with a darkened weigh crate.

Fig 1.



### Shed plan

18 m x 13.5 m, pole construction, fully-enclosed corrugated iron cladding. Scale 1 cm = 1 m.

### Building materials

12 mm D grade construction plywood, rimu framing and cat walls (150 x 25 mm), rimu/oregon boarding.

### Flooring

Crush area and primary sorting pens concreted. Heavy metal in rest of shed.

### Gates

25 mm box section steel framing. Plywood panelling. All either 1.2 m or 1.8 m width except for narrow (.800 m) raceway, and main entry gate.

4.4 m wide forcing gates allow access to either raceway. Animals can be worked from outside the pens if required.

Gate catches: "Slam catch" type — Operated from ground or catwalk.

Catwalk height: 2.4 m.

Pen subdivisions allow access to animals without confrontation: Sorting and drafting are easily done especially during the rut, or at velveting.

## YARDS

### ▷ The weighing platform

Weighing has been simplified by standing animals on a rubber mat on the Donalds platform, where they quietly watch the operator.

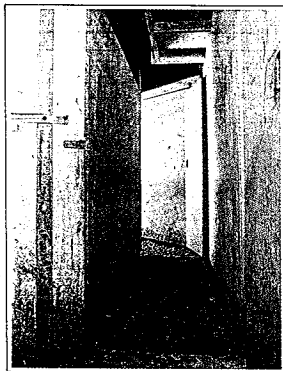


Photo: Jack Squires

The weigh box immediately precedes two forcing gates forming the entry to the crush and the animals accept standing on the platform as a matter of course.

### Crush

All handling of mature animals is done through a modified Heenan Fiordlander air operated crush, which has been increased both in length and in the distance of floor drop to cater for the larger animal. Elongated padded head rests associated with a shaped cutaway shoulder region allow ready access to the neck and velvet antler, yet the head can be restrained quickly using a rope and friction clamps.

The heavily padded sides allow some give, keeping the animal relaxed if it has to be held for some minutes, yet the firm hold creates confidence for both the handler and the animal.

Our faith in the system and the animals' acceptance of it is demonstrated by the ease in which animals enter the system either for repeated handling on one day, or with long time periods between routine activities.

The crush has also been set into the floor so that the animal enters up a slight ramp, but does not have to step up greatly. This complex is itself enclosed under a shade cloth shelter and can be lightened or darkened as required. Power, hot and cold water and velvet safe are all within reach allowing any activities from velvetting, Tb testing or calving

### The double raceway system

On left, the 600 mm race with the Donalds weighing platform underneath the false ceiling in the background. On right, the wide raceway which can be divided into two small pens. Centre is the recessed catwalk.

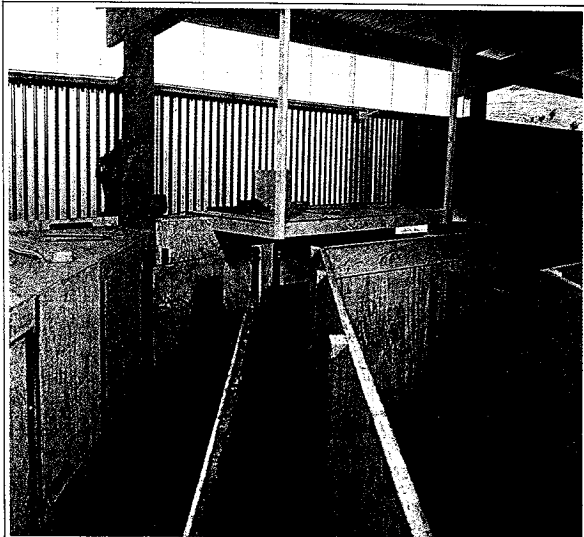


Photo: Jack Squires

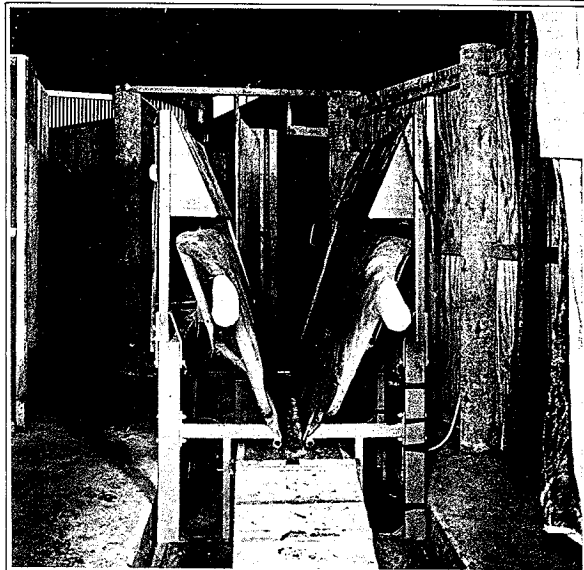


Photo: Jack Squires

A modified Fiordlander crush is accepted by man and animal. The crush has been elongated and given a deeper floor drop. Power, hot and cold water and the velvet safe are all close at hand. ▷

difficulties to be attended to quickly and hygienically.

### Dark room

The crush facility is complemented by an enclosed darkroom-crush gate complex. Weaner stock and Red deer can be handled in a traditional four or five to a pen basis, working quietly in the pen with them. This becomes important in the training of young Wapiti in being drafted and handled.

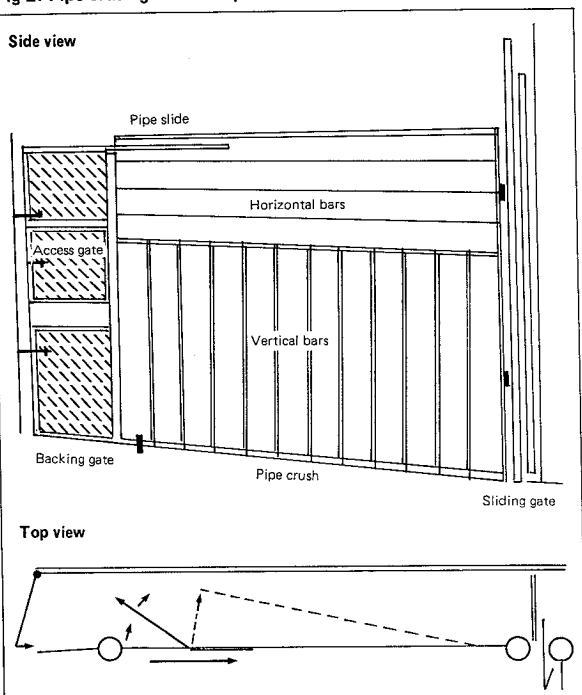
Lighting is controlled by dimmer switches and the pen size is varied using the crush door. Access to the loadout ramp is also through the dark room. Provision has been made for the crush door to have sliding panels inset for veterinary access.

All these specialised handling areas have a common access from the sorting and drafting pen. Two 4.4 m (full pen width) gates can be used from outside or above the pens to force the most stubborn animal to turn and move up the raceway.

It is planned to make one addition to the yards and install an open pipe style false wall in the large race. This will hold two or three cows or one bull at a time in a narrow raceway. The combination of horizontal and vertical bars allow access to the animal from any direction for drenching, blood sampling or Tb testing. Elk cows and bulls especially stand very quietly in this open raceway apparently responding to the fact that people are in immediate contact but in complete safety and seemingly not a threat.

The success of handling Wapiti and hybrids in this complex has been highlighted by the negligible damage to velvet (less than 0.5 per cent after 300 separate velvetting operations) and the ease in which all classes of stock can be yarded, sorted and worked with at any stage of the year. Good stockmanship, and consistent routine in the yards using a simple flow through race/crush design combined with patience and understanding of the nature of these large animals is basic to successful Wapiti farming. Eliminating 'people errors' remains the key and just as in any Red deer operation the rare nasty type be it male or female must be culled for venison, and not for the new farm just down the road. Incorporating these basics into any Wapiti or hybrid venture will ensure that the productive advantages that can be made from this form of deer farming will be realised with handling problems.

Fig 2: Pipe crush gate for Wapiti



#### Backing gate

3 — panel, plywood. Locks against raceway.

Access gate (centre panel), for faecal sampling, AI, calving, injections etc.

Pipe slide allows backing gate to be pushed forward to further confine Wapiti.

#### Pipe crush

2.4 x 2.0 m (25 mm diameter pipe). Set 0.8 m from racewall.

Horizontal bars (4), 180 mm apart, enable drenching access, Tb testing, vaccination etc with no danger to arms if animal moves.

Vertical bars prevent animal from climbing up gate.

*N.B. Entire framework may be unlocked and pushed against wall if necessary.*