

# Dehorning of Cattle

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**H**ORNS add nothing to the value of cattle for the purposes for which they are kept on New Zealand farms; on the other hand, they cause damage and indirectly are responsible for loss of production in milking herds. This article discusses various methods of dehorning and also suggests that long-term breeding programmes could give polled breeds for all purposes.

**C**ATTLE are one of the oldest species of domesticated animals used by mankind. Records of domesticated cattle for work and production of meat, hides, and milk go back to the earliest written history. It seems strange that any breed of cattle for whatever purpose they are kept, except as draught animals where horns can be useful, should have retained their horns—weapons of defence and offence and quite useless to domesticated animals; worse than useless, because they can be the cause of great economic loss and danger to other cattle and to their attendants. It is even more amazing that where dehorning is practised, the male is often deliberately left horned and a potential danger to his owner or any other person coming in contact with him. Bulls are notoriously unreliable and tragedies due to goring are common in the cattle-raising areas of the world.

## Retained to Enhance Appearance

Many owners of commercial herds dehorn their cattle as a routine practice, but stud breeders usually favour the retention of horns and one seldom sees a dehorned animal in the show ring. Breeders claim that an excellent specimen of a breed type has its appearance enhanced by correctly shaped horns, but it is reasonable to suppose that this fashion could be altered and that in a short time the polled or dehorned animal would be equally attractive and a horned beast would become something of a freak. Cattle are reared and kept to produce meat or milk and neither of these points has anything to do with horns. Ayrshire cattle, to take a good example, are renowned for their ability to produce milk, but it is because of the capacity and excellence of their udders combined with a high efficiency in converting pasture to milk, certainly not because of their formidable horns.

Every year a heavy loss is caused by horn injuries inflicted among cattle and there is a less spectacular but equally heavy loss of production due to bullying and disturbances in herds at pasture, at water troughs, and in yards waiting to be milked. Disturbance is often more serious when cattle are break grazed with an electric fence and a herd eats forward concentrated on a

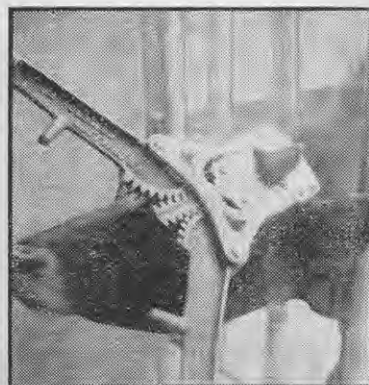
long, narrow strip of grass. Bullying cows without horns will cause trouble, but there is no risk of their causing serious injury to other cattle. A dehorned herd is quieter in the yard, is quickly bailed up and milked, and is handled with less risk of personal injury. Polled or dehorned cattle travel well, do not injure each other in trucks, are easier to handle, and arrive at saleyards or slaughterhouses in better condition without wounds or bruises inflicted by horns.

The standards of the stud breeder and the show ring should be on a business footing. If dehorned or polled cattle are economically a sounder proposition than horned cattle, a change should be just as desirable in the show ring as in the milking shed or drafting pen. It has been said that dehorning is painful for adult animals, but any pain inflicted is fleeting and less distressing than the often prolonged and repeated pain caused by ripping and gouging from horns.

## Change in Temperament

The removal of horns from a group of animals brings about marked changes in temperament. What may be called the "social order" is completely altered; pugnacious cattle which ruled others by their ability to wound or frighten find when they no longer have horns that a more peaceful attitude is necessary and often they become markedly docile. A dehorned herd, like a flock of sheep, will graze steadily with hardly a head lifted from the ground, and when replete will lie down and ruminate contentedly. Such behaviour assists considerably to improve the production of a herd. A vicious bull will often become amazingly amenable after he has been dehorned.

It would surely be better to breed cattle without horns than to submit



Dehorning guillotine in position.

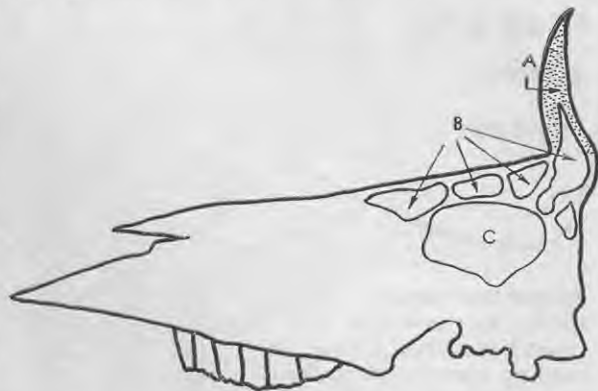
them to mutilation after birth. Though New Zealand farmers are noted for their progressive outlook, many herds still contain horned cattle, which are potentially dangerous and are responsible for loss in income.

There are two ways of producing a polled strain of a horned breed. The first is by breeding from the polled mutations which appear from time to time in animals of a pure horned breed, an example of this being the modern strain of polled Herefords bred in the U.S.A., where new registrations of purebred polled Herefords are now over 30,000 per year. The other method is by crossing horned cattle with a polled breed, when all the progeny of this first cross will be polled and the general appearance and commercial qualities will be intermediate between the two breeds. If polled progeny are mated back to the horned breed for several generations 50 per cent. at the fifth cross will be born polled and will be nearly 100 per cent. true in conformation and production to the original horned breed. When polled animals have the desirable characteristics they can then be mated together, and then if breeding is based on the Mendelian laws of inheritance and only animals which breed true to the polled characteristics are selected, a purebred polled strain with all the desirable qualities of the original horned breed can be built up.

## Dehorning

An understanding of the composition of the parts involved is necessary to appreciate what dehorning entails. The horn itself is a hollow core of keratin, a material similar to hair, covering and growing from a core of bone which is rough on the surface, is covered with horn-producing cells, and has a plentiful blood supply running through it. The horn core is hollow and communicates with the frontal sinuses of the skull (see diagram at left). The nervous supply to the horn emerges from the skull through a hole above the eye, runs along just below a ridge of bone under the skin, and divides at the base of the horn. The arterial blood supply comes up from the region of the throat.

To do dehorning satisfactorily and to prevent the regrowth of deformed and unsightly horn stubs it is necessary to remove all horn-producing tissue, which means in practice that a ring of hair-bearing skin about  $\frac{1}{4}$  in. thick has



Cross-section of skull of ox. A—Horn core. B—Frontal sinuses. C—Brain cavity.