Using the chin–ball mating harness

Vasectomised or Gomer bulls should be kept in good condition so that they can maintain an active sexual interest. If they lose condition rest periods are advisable during which they are well fed.

1. Obtain one chin–ball mating harness for each bull.
2. Obtain the appropriate coloured marking fluid: – magenta, orange, blue, green, yellow The magenta and orange fluids in New Zealand conditions last approximately 14 days. The blue, yellow and green fade more rapidly, lasting between 4–5 days.
3. Fill the reservoir with marking fluid. Check the ball for easy rotation.
4. Handle and quieten the bull as much as possible so the chin–ball can be fitted on the field rather than having to yard.
5. Strap on the device, making sure the bull's jaw movements are not restricted. Tighten the neck strap first and then adjust the nose strap, allowing the tank to fit snugly under the chin.

It has been found that under most circumstances, one colour change every three weeks is ideal, but as old marks fade after approx. 4–14 days new markings are easily noticed even when no colour change has been made. Remaining marking fluid should be removed from within the chin–ball tank at the end of the season by the use of a solvent The tank should then be filled with oil. Halters should be cleaned. With this maintenance of the equipment, halters and tank units should last several seasons.

SOLE authorised manufacturer on behalf of
The New Zealand Government Inventions Development Authority

SHOOF INTERNATIONAL LTD
PO Box 522, Cambridge 3450, New Zealand
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Mating Harness

takes the guesswork out of cattle breeding.

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The chin–ball mating harness was developed by the New Zealand Department of Agriculture to aid the detection of heat in cattle. Fitted to bulls and vasectomised (Gomer) bulls, it has advantages for both beef and dairy farmers:

BEEF FARMERS

1. Daily detection of heat for artificial insemination
2. Detection of dry cows after bulls pulled out of herd (pregnancy diagnosis)
3. Activity of range bulls during the mating season and subsequent indication of the time and distribution of calving.
4. Activity of heifers prior to joining the main herd. The chin–ball will allow a farmer to estimate more accurately the herd breeding activity – to help in decisions of culling, feeding and better use of labour.

DAIRY FARMERS

1. Detection of heat in milking cows for mating with bulls or artificial insemination.
2. Daily detection of heat in heifers for inclusion in an artificial insemination programme.
3. Identification of dry cows and heifers. 4. Activity of bulls during the mating season.

The chin–ball mating harness is a robust adjustable halter fitted on the underside with a cone–shaped marker unit with a freely rotating exposed ball bearing. The marker unit has a reservoir of special marking fluid and works on similar principles to the common ball–pen. The marker fluid is a special formula oil–based additive, available in magenta, blue, yellow and green. It is extremely important to use only the recommended type of fluid – it retains its adhesive properties long after exposure to air, it can be easily removed from the animal's hide by washing with a detergent or water and it is non–toxic.

When mating takes place, the ball bearing makes contact with the back, sides and rump of the oestrous cow. This is sufficient to rotate the exposed ball bearing and clear streak marks are evident particularly on the back of the animal. Marks last for approx. 4–14 days.

Generally there is a lot of interplay between the cow and bull during the period in which she is on heat (average 24 hours), and a clear pattern of marks appear. Single streaks should be ignored as they usually are the result of accidental markings during close mobbing of the stock. Streaks from actual matings usually run parallel with the backbone and result from the bull dragging its chin along the back of the cow when dismounting. After a few days of observation the distinction can easily be made from 'false marks' and those that result when cows are in heat.

When possible, bulls wearing devices should be separate from cows when yarded, so as to reduce the numbers of accidental markings. It is also advisable to avoid, if possible, driving harnessed bulls and cows together for long distances.

One filling of the large stainless steel container should be sufficient to mark approximately 25–30 cows, depending on the characteristic mating behaviour of the bull. A rough calculation of the length of time between fillings, based on the size of the range herd, is that on average 5% of the herd should be on heat each day, assuming an even spread of mating. That is for a herd of 100 cows at least five cows should be on heat each day if all cows were actively breeding, so that the unit would need to be filled every seven to eight days. In practice, there is usually a peak of breeding activity and it may be necessary to check the unit more frequently during the peak period.

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