

cow #012 with the calf was taken the day following the mothering up. This cow and calf were turned out into the nurse herd the following day.

Through the procedure, the calving percentage was increased significantly, and 100% of the available cows had calves to raise. There was no bottle or bucket feeding, no use of dead calf skins or afterbirth placed on animals, or other methods used to induce mothering up. The drug dosage was mild, so that the cows were not totally tranquilized and immobile, but remained standing; they were just slowed down enough to induce mothering up and allow sucking.

The tranquilizer Acepromazine has been used on animals for some time. It was used on wild animals in Africa in 1964, usually in conjunction with other drugs such as Sernylan (phencyclidine) (Harthoorn 1965). Acepromazine is also used with Sernylan, also known as PCP or 'angel dust,' to tranquilize grizzly bears in Yellowstone Park studies (Hobbet 1985).

In visiting with local and state veterinarians, many recognize the possible value of tranquilizers to facilitate mothering up of range livestock. However, they were not able to locate any studies or documentation which had been done on this procedure. The field trials conducted on the Federer ranch have shown that the tranquilizer Acepromazine can be used and may have real value as a tool to help mother up orphaned range calves. In these times of close profit margins, any increase in the cash crop available from a range is a plus for the operator.

Literature Cited

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- Hobbet, Staci.** High Country News; June 10, 1985, p. 14.

Study Assesses Feeding Method For Finishing Cattle

Increasing feeding frequency from once daily to four times daily did not improve cattle performance in a recent study conducted at the New Mexico State University Clayton Livestock Research Center.

According to Dr. Glen Lofgreen, superintendent, there is some evidence that feeding cattle more than twice daily might slightly improve digestibility and feed utilization. However, this is the second study Livestock Research Center scientists have made to test a four times daily feeding program without being able to show an advantage.

For this study, scientists fed 166 yearling steers a 90 percent concentrate ration for 190 days. The steers were divided into two groups, with one group fed once a day and the other four times a day. The feed amount was adjusted daily so that cattle were not underfed, yet did not waste feed.

Such performance factors as daily feed intake, daily weight gain, feed per pound of gain, hot carcass weight, dressing percent, quality grade and yield grade were assessed.

According to Lofgreen, dressing percent was the only statistically significant difference between yearling steer groups. Cattle fed once daily dressed significantly higher than those fed four times daily.

Scientists also figured costs and returns for the two feeding treatments. The once daily feeding, yielding a net return

of \$21.06 per head, was more economical than the four times daily feeding treatment which yielded \$11.43 per head in net returns under the conditions of the study.

"The net return per head favors the cattle fed once daily because of the lower cost of feeding once compared to four times and the greater dressing percent resulting in a larger selling price per head for those fed once," Lofgreen concluded.

In earlier related studies, scientists found no advantage to twice daily feeding over once daily feeding. They also found that providing a restricted quantity of feed four times daily to finishing cattle resulted in a lower rate of gain, lower carcass quality and poorer feed utilization than that of cattle fed as much as they would eat once a day.

"If once daily feeding is closely controlled with good feed bunk management, little or no improvement in cattle performance or efficiency can be expected by increasing the frequency of feeding or restricting feed intake or a combination of the time," Lofgreen said.

"However, since good bunk management is more difficult to attain with once daily feeding, some improvement might be seen with any modification in feeding management which results in better control of feed wastage through improved management practices," he added.—**Tina Prow**