

# Tranquilizing Range Cows to Facilitate Calf Adoption

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Range livestock are one of the principal end products of range management. Range operators over much of the western United States realize a profit or loss from the animals they can market; the end range products sold are usually calves and lambs. Any increase in the number of animals available to raise is a benefit to a range operator. Calving percentages of good range operators often approach 80% or more; any increases in number of calves would be a definite advantage. The Federer ranch is a small cow-calf operation of Angus and Angus-Hereford cross cows; any increases in calf numbers are welcome. On visits to a neighboring ranch, the operator of the Federer ranch had observed the operator using tranquilizers to help mother up orphaned lambs. Through visits with other range users and the range grapevine, it was found that tranquilizers had also been used on cows. It was reasoned that by using tranquilizers, orphaned calves could be mothered up and increase the successful calving percentage.

The tranquilizer used was Acepromazine, a drug used for years to help tranquilize range animals and wildlife (Harthoorn 1965). It is still used extensively, but nothing definite was found about using the tranquilizer to help mother up orphaned calves. Veterinarians suggested mild dosages. Dosages for Acepromazine from Colorado State University Veterinary Science School books suggested a range of .02 – .05 mg/lb with an intramuscular injection. The injectable Acepromazine maleate multiple dose vial indicates each ml contains 10 mg; dosage recommended a 1 cc for each 10 to 250 lb.

The 1985 calving season started on the Federer range in March and continued up into May. All started out well with calving and cows successfully calved out. On April 6, 1985, during the night, one cow had a calf born in a snowstorm which froze before it had dried off and sucked—this left a free cow. However, another cow had successfully calved and had twins. Angus are ordinarily good milk producers, but two calves on one range cow is not a good practice, and even if the calves survived they might be small. Therefore, it was decided to try to take one twin calf and mother up to the free cow. A light dosage of Acepromazine was administered intramuscularly under a veterinarian's direction to the free cow; and she was confined to a barn. The cow was feisty for about 30 minutes and refused to allow the calf to suck. The cow and calf were confined overnight, and by the next morning the cow claimed the calf as any other cow with a new calf, and was ready to join the nurse herd and was turned out on

the range with them. A photograph taken a few days after the adoption had taken place shows the cow-calf bond.



Angus-Hereford cow #008 with Angus calf, a twin from cow #028. Adoption date April 6, 1985, the same day original calf died.

On May 6, 1985, another cow calved out, but the calf died. Another calf was not available within the herd, but upon contact with an adjoining operator, a Angus-Hereford cross orphaned calf was found. Once again the cow was confined to a shed and Acepromazine administered, and within an hour the calf was successfully introduced to the cow who allowed it to suck and mothered up well. A photograph of



Angus cow #012 with adopted Angus-Hereford cross calf from a neighboring herd, May 8, 1985. Adoption was successful 2 days after cow #012 had calved and lost her original calf.

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

- Harthoorn, A.M.** Application of pharmacological and physiological principles in restraint of wild animals. Wildlife Monographs, Wildlife Society, March 1965, No. 14, p. 42.
- 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**