Technical Notes:

Technique to Separate Grazing Cattle into Groups for Feeding

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Abstract

A training procedure is described which was used to separate a group of cattle grazing the same pasture into smaller groups to facilitate supplementation. The procedure was successfully used to make 3 separations and probably could be used for 1 or 2 more. It appears to be a useful alternative to maintaining supplementation groups on separate pastures.

Equipment and facilities utilized for individual supplementation of cattle in range and pasture experiments are expensive and the procedures generally are labor intensive (Harris et al. 1967, Karn and Clanton 1974). Thus, range and pasture supplementation experiments are often conducted by maintaining animals on separate pastures to facilitate feeding. This approach generally results in differences in animal handling procedures and in forage composition and quality differences between pastures, especially where native range is involved. An inexpensive alternative procedure which allows cattle to be maintained together, yet separated into groups at feeding time, is described.

Materials and Methods

Separation of animals into supplementation groups was effected by corralling animals in a holding pen and training them either to go through or avoid a restricted access entryway leading to a feeding pen. Thus, if a group of animals were to be separated into 2 groups for feeding, one group would be trained to go through the entryway into a feeding pen and the other group would be trained to avoid the entryway. The group trained to avoid the entryway could then be fed in the holding pen. The facility we used for separation of cattle into groups is shown in Figure 1. The holding pen is in the background, the supplementation pen is in the foreground, and the restricted access entry is to the right side of the supplementation pen. Although this arrangement only facilitated 2 separations, other separations could be made by constructing additional supplementation pens with restricted access entries leading out of the holding pen. Portable corral panels were used for the pens and for the entryway when permanent pens were not available. The restricted access entryway was approximately 76 cm wide and projected outward from the pen in a manner that normally would make it difficult for animals to find and use. Mid-way through the entryway, a shock mechanism was fastened which consisted of a heavy duty screen door spring mounted approximately 76 cm above the ground to one of the side corral panels (Fig. 2). The spring was held in place by putting it through a tight fitting piece of plastic pipe (14mm I.D. by 100 mm long) which was in turn driven through a hole placed in a block of wood. The block of wood was then wired to a side corral panel. The outside end of the spring was attached to an insulated wire which led to a fence charger, while the other end of the spring projected into the entryway.

Animals to be supplemented in a particular pen were trained to go through the entryway into that pen by distributing a small amount of feed in the feed bunks, and forcing the animals to go through the entryway to get the feed. After eating, the animals were moved back through the entryway into the holding pen. This procedure was repeated several times until cattle negotiated the entryway easily inspite of the wiggling spring. Cattle that were designated not to enter a specific pen were put into that pen, and the screen door spring in the entryway was electrified. The cattle were then slowly driven out through the entryway so that each one received a shock. This procedure was repeated a second time to make sure that all animals received a good shock.



Fig. 1. Photograph showing the holding pen (also feeding pen) in the background, the restricted access entryway to the right and the feeding pen in the foreground.

Results and Discussion

This technique has been used in studies at the Northern Great Plains Research Laboratory, Mandan, N.Dak., where a group of 30 steers was separated into 3 smaller groups, 2 supplemented and 1 unsupplemented and where a group of 53 first-calf heifers was separated into 2 groups, both supplemented. The heifers were fed by this procedure for 18 months, both before and after calving.

There were only 5 occurrences of unsupplemented steers going into a feeding pen during 65 feeding days; however, there were several occurrences of supplemented steers going into the wrong pen, especially during the first 2 weeks. The steers were fed 6 days per week. Throughout the first 40 feeding days with the heifers, which were fed only 3 days per week, there were 11 occurrences of shocked animals going through the entryway into the wrong pen.

Generally 2 shocks during training were adequate to discourage animals from entering the wrong pen, but if an animal persisted in entering an incorrect pen it received additional shocks. It was observed that it was easier to train animals not to enter a specific pen, by putting them into the pen as a group, and shocking them as they came out, than it was to selectively shock them as they entered a pen intermingled with animals designated to be fed in that pen.

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Fig. 2. Photograph on the left shows cattle entering area through a restricted access entry and photograph on the right shows the "shocking" spring mechanism located on the corral panel to the left side of the entryway.

C. Point of attachment of the insulated wire leading to the fence charger.

The latter approach often resulted in either the wrong animal being shocked or else the reactions of a shocked animal would frighten others causing them to balk at going through the entryway.

When animals were being trained, they seemed to go into the correct pen more readily when feed was distributed as they came in from the pasture. If they hesitated and did not go directly into their pen, they seemed to become confused and not sure where they were supposed to go. However, during the experiment we wanted to make sure that animals were all fed correctly, thus, feed was not distributed until they were in their correct pens. If an animal did get into the wrong pen, it was negatively reinforced by receiving no feed and by being shocked as it was removed from the pen. Animals seemed to learn where they were supposed to go very quickly and even through they sometimes made mistakes, it was comparatively easy to move them out of one pen and into another. No problems were experienced with animals going into the wrong pen merely because they followed another animal in from the pasture. However, since the passageway was designed to discourage entry it was sometimes more difficult to get animals to go through the entryway into a pen then to keep them out.

Literature Cited

- Harris, L.E., G.P. Lofgreen, C.J. Kercher, R.J. Raleigh, and V.R. Bohman. 1967. Techniques of research in range livestock nutrition. Utah Agr. Exp. Sta. Bull. No. 471.
- Karn, J.F., and D.C. Clanton. 1974. Electronically controlled individual cattle feeding. J. Anim. Sci. (Abstract) 39:136.

A. "Shocking" spring.

B. Holding block.