

ing about December 1, 5 pounds of chop once a day, gradually increasing this till about the 15th of the month to 4 pounds twice a day, which is still further increased until by the end of the month 6 pounds twice a day is being fed. This is gradually increased for the next ten days or so, when a little chop will be left over in the bunks; they should then be filled up and never allowed to get empty. I find more grain is eaten the third month than the second. Steers, such as referred to above, will sometimes average two pounds per head per day when on full feed depending on the size of the steer and the quality of rough feed and also, to some extent, on the weather. Steers of good breeding will gain in weight in five months from December 1 to May 1, from 350 to 500 pounds. Such steers will continue growing after the date mentioned until sold, and I am sure no one ever yet experienced any difficulty in getting a good price for such cattle in the spring.

I suppose objection would be raised to the amount of grain fed, but I contend that half-way methods don't pay, and in my experience, the results obtained justify the extra quantity of grain. On limited rations, steers do not become contented; they remain on their feet too much of the time playing and fighting, thus wasting a certain amount of the feed consumed, whereas when put on full feed, even the wildest cattle soon become lazy and lie down a great deal of the time, when, as I have already said, they are making flesh economically.

Another important item is the water supply, and it is most essential that water should at all times be available. If water is supplied from a well, a tank heater is a necessity to keep the water in the troughs from freezing, and it will pay for itself in a short time if twenty head or over are being fed. If the water is supplied from a lake or a stream then ample water holes should be provided, and attention should be given that these are made convenient for drinking from, so that the animal can stand comfortably. This can be done by making a long opening in the ice, say not over twelve inches wide, and as long as necessary. A little ledge should be left all around the edges of the water hole to keep their feet from slipping in, and the ice should be chopped away at the back so that their hind feet are down almost on a level with their front feet. The ledge round the water hole will also prevent the water from becoming contaminated on warm days. Barrel salt I find best and it should not be allowed to get lumpy or hard.

Operations of a Large Firm.

Many other Alberta feeders are adopting intensive fattening methods. A representative of this Branch, travelling in Alberta, reports the operations of one firm that had in the winter of 1908-9, 1,400 head on feed at three points—Carbon, Midnapore and High River. At High River, where 485 head were feeding, the cattle had only a brush shelter on the banks of the river. In January when visited they were getting all the hay they could eat, and a meal ration of 16 pounds per day. The meal consisted of a mixture of two-thirds oats and one-third barley ground fine. This meal was fed in self-feeders of which there were thirty, these being filled every second day. The cattle when seen in extremely cold weather appeared comfortable and contented. They were eating comparatively little hay—about four tons per day, or 16 pounds per head, which is about equal to the weight of meal consumed. They had free access to salt and to High River water. While they had not been weighed they appeared to be putting on weight rapidly. Three men were able to look after this herd of 485 head, including the work of grinding the grain by means of an engine and chopper.

WINTERING CALVES.

There is perhaps no greater loss in the entire ranching industry than that arising from the usual methods of wintering calves. Not only are many promising calves lost from exposure and shortage of feed during severe periods, but practically all that have come through the winter have lost weight and become stunted for future growth. Those who have taken the trouble to weigh their calves in fall and again in spring