

tion I raked the mulching up around the hills and cultivated between rows, keeping the soil loose and as fine as I could make it, although it was apparently completely dried out."

Avoid Changes in Feeding Steers

The following from the pen of that well-known authority, Professor Henry, on the subject of feeding steers, is practical and to the point:

The fattening steer is one of the most dainty of farm animals and no other shows so quickly and positively the ill effect, of changing conditions of almost any kind provided the previous ones were fairly satisfactory.

If forced to change conditions, let it be done gradually and in such manner as to produce the least shock possible

subsistence, or to turn them on the pastures for a few weeks. Unless the cattle are to be out as much as six or eight weeks this change is hardly advisable.

An experiment by Thorne and Hickman, of the Ohio station, well illustrates this point. In this instance, about May 1, steers which had been fed grain and hay in the stable were divided into two lots and one turned to pasture during the day, receiving hay and grain in the stable daily in addition, while the other lot was kept in close confinement with the grain allowance continued. The steers kept in the barn made a daily gain of two pounds per day, this gain costing \$7.64 for the feed consumed. The steers turned to the pasture for thirty days, while still receiving feed morning and night in the stable, made a daily gain of only 1.42 pounds, and the gain so made cost \$9.10 per hundred for the feed consumed, not counting that supplied in the pasture. In another trial conducted in the same manner steers kept in a barn after the first of May



A CHAMPION PEN OF SOUTHDOWN EWES.

with the fattening cattle. In a feeding trial once conducted by the writer, one bunch of steers was getting shelled corn and the other corn meal made from grain from the same bin. Both lots were gaining rapidly as shown by the repeated weighings. Deeming it the fairest for the experiment to change the grain for the two lots, that getting shelled corn was given corn meal, and the lot which had been receiving corn meal was supplied with whole corn, the change being made without gradation. As a consequence of this change, both lots of steers seemed dissatisfied with the feed given them and there was no gain in weight for some time. The loss was considerable.

When one must make changes, let him arrange to bring them about as quietly as possible, and slowly, so that the animals hardly notice the difference. Often in spring the stockman hesitates whether to keep his fattening cattle still confined to the shed or yard with dry food for their

and fed on dry food made a hundred pounds of gain for \$9.14 worth of food, while those turned to pasture for 45 days cost \$9.16 for each hundred pounds of gain for feed eaten in the stable, not counting that consumed in the pasture.

At the Iowa station twenty Shorthorn and Angus steers were turned from the feed lot to pasture, and, although still given grain, made a daily gain of only 0.6 of a pound each for the fifteen days during which the gradual change was being made. At the same station, when changing a lot in the fall, there was likewise a gain of only 0.6 of a pound per head daily during the fifteen days in which the change occurred. Previous to making the change the steers had gained each two pounds daily on the pasture.

Wilson and Curtis, commenting on the results at the Iowa station, write: "A changing period is a losing period, if the change is radical." They might have said that a