

Surprise. —A noted prize-winning Scotch Ayrahire, bred by A. Mitchell, Barcheskie, Scotland. Exported to Japan in August, 1902.

Fattening Cattle on Grass

The question often arises with the cattle leeder whether it is more profitable to finish cattle in winter or summer. Large feeders, who make a business of it, usually follow both methods and have cattle ready for market both winter and summer.

When properly managed and with the right kind of animals, cattle can be fattened on grass cheaper than during the winter. Feeders often make a mistake in changing from dry feed to grass too quickly. A radical change of this kind means a losing period. It will take about fiteen days to change a grain stomach into a grass stomach, during which time steers will not gain, if they do not actually lose in weight. If cattle, which are on full feed are to be marketed on or before June 1st it will not pay to change them from dry to grass feed in the spring. If they are to be marketed about June 15th or after, the change can be profitably made and is, in fact, advisable. The most successful feeders prefer to manage their feeding period so that their cattle can be fed in the summer and finished in the fall, or fed in the winter and finished in the spring. All radical changes are thus avoided and cattle finished more readily.

The class of cattle that will make the most profit on grass are mature steers, which have come through the winter on roughage and a small amount of grain. This class can best be finished on grass and a little grain. Some object to feeding grain to steers on grass. It has, howver, been found to be a most profitable way of feeding grain, as it helps to keep the flesh firm and enables the cattle to compete favorably with the best steers on the market.

The Iowa Agricultural College

has done some very effective work in feeding cattle for beef. Experiments conducted at that institution show that to produce a pound of gain, a steer in winter requires 9.99 pounds of grain and 3.82 pounds of roughage, gaining at the rate of 2.13 pounds per day, while a steer on summer pasture requires 7.19 pounds of grain, gaining at the rate of 2.56 pounds per day. Valuing roughage at \$5.00 per ton it is equivalent to 61 cents a month per steer. Taking into account the extra labor in winter feeding, it is no more than fair to assume that the cost of pasture is: offset by the cost of roughage, leaving the comparison to the amount of grain required to produce a pound of gain. According to the above a bushel of corn will make 5.6 pounds of beef in winter and 7.7 pounds in summer on grass, a difference in favor of summer feeding of a little over 28 per cent.

There are two ways by which steers may be placed on grass with the least loss. Keeping them on dry feed till the grass is well started and then turning them out a few hours a day until they are accustomed to it, or turning them out early in the spring and supplying roughage to supply the solid utrients and to make the change from dry feed less sudden. Th latter method is to be preferred as the cattle rely on the dry roughage at first. When on the grass, steers should be made to rely on it as food with just enough grain to keep the flesh firm. For the periods of drouth in July and August some kind of supplementary feed should be supplied. Cattle should always be finished before shipping to insure the best results. During the last month of feeding the addition of cotton seed meal or oil meal is helpful in putting on a finish. The former is, perhaps, better for this purpose, as it is more binding in its effects, thus counteracting the loosening effects of grass. Cattle fed on grass always shrink a greater percentage suring shipment than those led on drv leed. In shipping, therefore, the cattle should be so handled, that this shrinkage may be avoided as much as possible. Take the cattle of grass two days prior to shipping and feed bright hay with their ration omitting the last leed of grain before loading.

The Oxygen Cure for Milk Fever.

A veterinary surgeon at Lucerne, Switzerland, has discovered and successfully practised a new treat-ment for milk fever. The treatdiscovered and ment consists of the injection of pure oxygen into the udder. He has applied this in twenty-two cases. Some of the cows were in an extremely dangerous con-dition, prostrated, insensible, and with labored respiration, acceler-ated pulse and paralyzed tongue, yet in thirty to sixty minutes they had so far recovered as to for food. seek Not one of them From six to ten litres of died. oxygen were injected, the gas be-ing compressed to 25 atmosing compressed to 25 atmos-pheres. After washing and disinfecting a teat the oxygen was slowly introduced by means of a teat When two quarters had probe. been filled with the gas the teats were compressed and by massage the gas distributed through all the tissues. glandular It was repeated with the other two quarters, the whole operation taking about ten minutes. Gradually the treated cow showed signs of recovery. In two instances a relapse occurred, through the cows having been milked too soon; but a fresh inflation of oxygen soon restored them.

It is claimed by the discoverer that if applied soon enough this treatment will be successful in all cases. As an explanation of the successfulness of oxygen, he suggests that the poison formed in the udder in milk lever cases is produced by micro-organisms, which may be anaerobic, and therefore unable to live in the presence of oxygen.

Science and System in Horse Breeding

Horsebreeding in France has been reduced to a science. It has been liberally aided by government money and fostered by judicious legislatioh. Has this great expenditure of time and money paid? The best answer is the fact that France to-day produces the highest priced horses in the world.

In the days of the Emperors horsebreeding was lostered by royalty. In 1690 Louis XIV. established royal breeding stables. As the value of the horse in war became recognized, government breeding stables were established to produce the best horses possible