

hundred pounds of butter fat per year. It is valuable information to have, not only for your own use but for the use of others who may wish to purchase of your stock.

Secure a bull—pure bred, of course—one that has a good milking ancestry behind him. A bull whose dam and grand-dam and whose sire's dam and grand-dam have been good producers both of milk and butter fat, has, if pure bred, a good pedigree. If you have started with some breed of dairy cattle such as Ayrshire, Holstein or Guernsey, do not cross upon your females a bull of some other breed. Select from the breed you have started with a bull that will improve upon your females. This is the system that has been followed through the years by the good dairymen. If you start cross-breeding you immediately undo the good work and in time get nothing but scrubs.

If you have a herd of grade dairy cows select a bull of the blood that predominates in your herd; see that he measures up well as a dairy bull. He, too, must be pure bred and registered if you intend to improve upon what you start with. Be persistent and do not let any one persuade you to follow a zigzag course in your grading up process. For example, if you are starting with the western farmers' dairy cow—the milking Shorthorn or her grades—use nothing but a Shorthorn bull of the right sort. In a few years your herd will be so well graded up that your cows will look like pure breeds and you will have a justifiable pride in the work you have accomplished. How different the work of the man who jumps about from one kind to another, first an Ayrshire, then a Jersey, and then scrub. He will get from this just what he deserves—a lot of scrubs in which neither he nor his cow take any pride. He accomplishes nothing but failure. Have a right purpose in this work and stick to it.

#### DUAL PURPOSE CATTLE.

Many of the cattle found in the prairie provinces are of Shorthorn extraction. These are very useful cattle generally, and can, as hinted above, be greatly improved by careful mating and generous feeding, together with persistent milking. Dairy Shorthorns are becoming more popular all the time and deservedly so. Twenty per cent. of the milk delivered in London is from Shorthorn herds. It is not uncommon to find Shorthorn herds with an average of 7,000 pounds of milk a year. If you are near a city or in special dairy work, you may wish to keep some one of the pure dairy breeds or their grades. You must then select for your special purpose with a view to production, hardiness, etc.

#### THE CALF.

Take the calf away from the dairy cow at once. Feed it the first new milk from the cow and continue it for a few days. Gradually substitute skim milk for whole milk and at about a month old it may have all skim milk with a tablespoonful of flaxseed gruel as a substitute for the fat that has been removed. Always feed the milk warm to prevent scours. Make the calf grow but do not fatten it. Grow it up well as a yearling by feeding well with crushed oats and bran and alfalfa and other good roughage such as oat sheaves, corn fodder and good oat straw.