

August, valued at 1 cent, would bring the cost of production throughout June, July, and August to an average of $4\frac{1}{2}$ cents per day, so that 100 lbs. of milk produced in four days would cost 17 cts. which is exactly a quarter of the cost in the winter months, or 51 cents less.

Having, in a general way, averaged up and demonstrated the relative cost of production between cows calving in April or May and those calving in November and December, for the first three months of the lactation period in each case, it would seem at first glance that the comparison is very unfavourable to the winter calvers, this, however, is not the case, when we take into consideration what part of the ration goes toward supplying the wants of her own system before there is any milk production. Most authorities claim it requires two-thirds of a full ration to keep a cow in fair condition—her food of support—before any milk is produced. This rather alters the complexion of things, for when we consider that the spring calvers are generally dry or nearly so for several of the winter months, and yet require two-thirds as much food to support them, as the fall and winter calvers in their full flush of milk require, it takes but little perception to realize how much more profitable fall and winter calvers must be than spring calvers. Thus, allowing nine months as the lactation period in each case, the April calver will be dry some time in January, and has to be kept at a cost of 11 cts. ($\frac{2}{3}$ of 17 cts.) a day, for three months, for no return whatever; whereas, the November calver will be dry some time in August, and for three months would be dry and unprofitable at practically no expense, or say $2\frac{1}{2}$ cts. a day. But it would really be strange if the cow calving in November did dry up in August, and in all probability, if left to her own natural instinct, would go on giving milk right up to the date of her next freshening, (not that this is at all advisable) and I think at least a six weeks longer lactation period can be claimed for the late calving cow.

Now in the case of the Spring calver, we have a great flush of milk as she goes out to grass, which at the end of three months is considerably diminished, by various irritating and unfavourable conditions, such as driving, heat, drought, flies and lessening of feed both in quality and quantity, then, in September, comes an improvement of the pastures, which keeps the yield from diminishing further for a week or two, but this is short

lived, and what with cold nights and frozen pasturage the yield is so lessened that when the cow goes into the barn she rarely gives enough milk to pay for any feed beyond her essential food of support, and so quickly dries up and stands eating three times a day, with no return, for at least three months. In the case of the November calver, she soon reaches her full flow of milk, and with liberal but judicious feeding maintains a fine yield until Spring; then, when she goes on to pasture she flushes up again, and although giving less milk month by month, she has more favourable conditions at the end of six months (June) than the Spring calver has at the end of the same time (October), and will continue giving a larger quantity and this for a longer period than the latter.

It has been proved by numerous noted dairy-men that the late calver, may be expected to milk longer at a profit, and to yield considerably more milk in twelve months, than the Spring calver. Again, what farmer does not prefer to be free from dairy work in the busy harvest time, rather than in the late winter months, when his cows need attention whether milking or not.

The calves too, benefit by being born shortly after coming into the barn in early winter, and can be tended without much extra care, and are ready in the Spring to enjoy life and grow steadily in a little paddock by themselves, whereas the unfortunate Spring calf exists throughout the summer either in a stifling barn, or has a hard time dodging flies under a hot sun, on a skim-milk (often sour) diet, which is altogether unsuitable for such athletics. This skim-milk question is by no means an unimportant one either, as all creamery patrons are aware how much sweeter and fresher it is in the winter than in the hot sultry days of summer.

Of course the producer of milk for sale, if he has an even trade, may want to have about an equal number of fresh cows every month in the year, but the ordinary creamery patron will find it most profitable to have the majority of his cows calve in November.

It seems needless to rehearse the stock arguments on this subject, based upon the long experience of successful dairymen, but perhaps this brief recapitulation may be useful.

Very high authorities claim, that in actual practice four fall-fresh cows have been found to equal five which calved in the spring, in twelve