

He analysts in England have fixed upon $11\frac{1}{2}$ and $2\frac{1}{2}$ as the standards, but Dr. Volcker thought that a fairer average would be $11\frac{1}{2}$ and 3.

Accurate tests for the adulterations of milk have been chiefly confined to large cities, but as chemical analysis has been too tardy a process, other methods have come into active use. The instruments have been so expensive that they have not come into general use amongst our dairymen, although greatly needed by them—both butter and cheese makers—and the instruments have been still less within the reach of our farmers, who could utilize them to very great advantage in testing the individual merits of their cows, by means of which they could breed up their herds much more rapidly. Any instrument which could expeditiously and accurately give merely the percentage of fat would be a great service to them, as few farmers like to go to the trouble of churning each cow's milk separately in order to ascertain the best butter-producers in their herds, the volume of cream being no reliable guide.

The best instruments for the purposes above named are the Feser Lactoscope, the Chevalier Creamometer, the Quevenne Lactometer, the Greiner Thermometer, including a bottle of iodine solution, and a bottle of red and blue litmus paper. These are all neatly fitted into a case, and can be shipped without risk.

The above are the instruments introduced into Canada from Germany by the Middlesex Agricultural Council, and it is hoped that the distribution of the lactoscopes throughout various sections will result in much good to our farmers and dairymen.

There is something wrong in the feed. Just what it is cannot be told without a full inquiry into the case, says L. B. Arnold in the N. E. Homestead. There are several things that produce rosy milk and cream. The most common cause is the use of some medicinal weeds, especially bitter weeds, as rag weed, tansy, wormwood and some species of yellow daisy. Poisonous weeds, such as cicuta, and lobelia, which cows sometimes seem disposed to take, have the same effect. He has, in several instances, known it to occur from an excessive use of good food. A too free use of corn meal and of sugar beets has every now and then been the occasion of rosy milk, but oftener in hot weather than in cold. It is also often the result of weakness from any cause, but especially from scouring. As the cow in question is apparently well and giving milk, the cause undoubtedly lies somewhere in her feed, and if the owner will take the trouble to change one condition of her feed at a time, he will be able to find the cause, and will gain for himself a bit of valuable information.

A correspondent of the National Stockman says: The gist of this matter lies in a very few words. They are these: First, choose your animals for personal merit; second, couple them for mutual fitness, with a view to cancel defects and deepen excellences; third, if on trial they do not nick, try other combinations, and in general remember that individual excellence to a breeder means excellence as a sire as much as excellence in form, and that the best index of how a bull will breed is how his ancestors looked and acted; in other words, to know the future, study the past. This, indeed, is the substance of the matter, easily learned, easily spoken, but, alas! hard to practice. Like many another formula, not every one who uses it can raise the spirits which it is meant to raise. The wizard, or at least one of the initiated, alone can work the spell even with the mystic words.

Stock.

A Chatty Letter from the States.

[From our Chicago Correspondent.]

A few years ago there was a great rush among cattle breeders to produce grade bulls for the western ranges. Thousands and thousands of quarter and half bloods were sold as yearlings at \$50 to \$60 per head, when as sires they were but little better in blood and not nearly so good in vigor as the ordinary native bulls of the west. As steers, these so-called improved bulls would not have been worth more than half what gullible western men were willing to pay for them.

During the current year, some Michigan breeders brought a lot of young grades here which would not sell at auction, but were finally closed out by private treaty to an old Illinois feeder, who bought them at \$20 to \$30 per head. He said a thoroughbred bull would get enough mean calves, and so he had all of these bulls, some three car loads, one's and two's, put to the knife and converted into steers, and placed on pasture. Just after they were altered, however, a western bull speculator appeared and said he could have used them to fill a contract at Denver at \$65 per head.

The idea of castrating old bulls to feed is growing in favor here. They can be bought in the market very cheap; the loss from the operation is practically nothing, one man losing only 1 out of 1,000 so treated. The animals feed quietly, and take on fat better than steers, and when returned to market sell for at least 1c. per pound more than bulls which had consumed much more feed. This may be an idea by which Canadian stockmen may profit. The castration should be done so the wound will heal before fly time, and there will be no more loss in operating on four and five-year-old bulls, or those older, than upon yearlings or calves. After the operation and feeding a while, the animals become perfectly docile, and at market can sometimes hardly be told from steers, their general appearance so materially alters.

But, speaking of bulls, the grade bull-trade in the west has been anything but satisfactory this year. Western ranchmen are not only getting tired of paying big prices for low grades, and are using better qualities, but many of them are also raising their own bulls.

Every year during the summer months there is a depression in the market for heavy cattle. This year it has seemed to be more marked than formerly, and July cattle shippers were chagrined to sell big 1,500 lb. bullocks at \$4.75 @ \$5, when the same rates were more cheerfully paid by purchasers for tidy, fat 1,100 to 1,200 lb. beeves. The fall, winter and early spring are the times to market heavy cattle to the best advantage, and owners ought to learn this without paying so dearly and repeatedly for the experience.

Indications now point unmistakably to a largely decreased Texas beef crop this year. Shipments from the "Lone Star cattle kingdom" are just now at their height, but thus far the numbers marketed are less than in 1885. Texas cattlemen are slowly coming to the conclusion that they will be compelled to provide feed and shelter for their cattle. The ten-acres-for-one-steer idea is playing out.

There is a decided shortage in the American

wool crop, estimated, by good authorities, at seventeen to nineteen million pounds. There is also a shortage in the States mutton crop, though new sources of supply have been opened by the extension of the double-deck car system to the far west and southwest.

Sheep raising, which for a couple of years has been growing more and more unpopular, is receiving something of an impetus this year by the better prices for mutton and wool. If breeders paid some attention to the quality of the sheep they raise, it would not be very easy for the supply of this continent to exceed the demand, but when western sheepmen are willing to raise sheep—they call them sheep—which at market pay but 25c. to \$1 per head more than it costs to get them to market, there is constant danger of overdoing the business with mere numbers.

Rangemen in the southwestern States are branching out into Mexico farming, and those in the northwestern are leasing and otherwise acquiring large tracts of land in the Canadian northwest. Overstocked home ranges is the reason.

Fast-walking Horses.

The attention of breeders will bear being called frequently to the neglect of teaching colts and young horses to walk, says a writer in Wallace's Monthly. The horse used exclusively for racing purposes is the only member of the family entitled to be excused from a well-developed gait at the walk. The walking gait is the most important for all other horses and should be the first gait developed and perfected by the trainer, and after a rapid, clean, strong walk is acquired, the speed-gaits should be attended to, though very carefully, until they are brought to a good degree of proficiency. Horses may be made to attain almost incredible speed at this way of going if due care is observed. We have known numerous road-bred horses that would walk from four and a half to five miles in an hour without urging, and many, in fact most well-bred road-horses, could be taught to cover greater distances than this in the same time if it were not for the pernicious custom (as we think) of putting the colts to the trot as soon as they are in the harness and before they are really bridle-wise. It may be a good idea for breeders of racing stock to put the colts to the trot and run at the leading-strap even before they are old enough to harness or saddle, since the popularity of sales of "yearlings" is increasing so rapidly, but for the common breeder this is folly.

We would get much better prices for the horses we ship for the city buyers for carriage and road purposes if we cultivated the walk. Every farmer's boy knows that he can do a better job of work—plowing, harrowing or working corn—with a fast walking team which makes the dirt fly, than with a slow one. The saving on a farm when the horses walk three miles an hour, or even when they walk two miles and a half, is 20 percent, or in other words, the fast team can rest a whole day in the week and yet do as much work as the slow team—do it easier and do it better. In times as at present when the work is pressing or the weather uncertain, the fast team is a treasure.

While every effort has been made to increase the speed of the trotter, the draft-horse men have been working for pounds, with little regard