

the potash in the soil from its insoluble combinations, and leaves it in a condition easy of assimilation by the growing plants. Some plants, such as the clovers, turnips, etc., also contain considerable quantities of sulphur in their composition, which accounts in a measure for their hearty response to dressings or applications of gypsum. The common method of applying is as a top dressing to clover or turnips, but it is by applying a month or so beforehand, so that the gypsum may have time to act on the substances in the soil, that best results, as a rule, follow its use. It is usually applied at the rate of two hundred to four hundred pounds per acre.

To our mind gypsum has a greater value, however, when used as an absorbent in stables, for when sprinkled over the floor it keeps down all odors and serves to fix the ammonia, which would otherwise escape. On entering a tightly-closed stable on a winter morning the smell of ammonia is very pronounced. It is this gas, containing some of the most valuable manurial substances, that the gypsum prevents from escaping. When gypsum is used, this ammonia is caught by it and a change takes place, the sulphuric acid of the gypsum changes with the carbonic acid of the ammonia compound, and thus a more stable substance is formed. Fittbogen conducted a number of experiments to determine how much of the nitrogen in the fodder was retained in the manure when one or another of the preservatives were used. He found that when no gypsum or other preservative was used there was retained 71 to 82 per cent., while in that to which gypsum was applied there was retained 88 to 90 per cent. This fertilizer can be obtained at a cost of from four dollars upwards per ton, varying with the distance of transportation. At such a price it gives excellent value. The quantity to be used is about one-half pound per day for each horse, cow, or ten sheep. Dry gypsum has no tendency to lessen odors, as shown by the fact that dry ammonium carbonate in powder form and dry gypsum may be mixed together and the ammonia smell is not in the least decreased in strength, but when moistened the reverse becomes the case. In stables this is not a matter of importance, as it is almost sure to become moist. When applying to manure heaps, as is often done to check fermentation and prevent the loss of ammonia, it should be moistened either before or after applying. In purchasing it, if possible, see that it has been kept in a dry place, as it readily absorbs moisture, which will greatly increase its weight. It is also a matter of importance that it be finely ground, as this materially influences its value as an absorbent, and more particularly as a manure. As a rule, it will be found that the light-colored plasters are purer than the darker.

Information Wanted About the Banner Oat.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

DEAR SIR,—Through an advertisement in your journal I bought from Mr. John Miller, of Markham, in May last, one bushel of Vick's Banner oats, which I sowed on one-half an acre of well-drained land, and I have just threshed from the crop 30½ bushels. The early season here was very wet, and the rest of my oats and the general crop has only given about one-half the usual yield. I would like to hear from others, through your journal, that sowed this oat if they also have found them to yield exceptionally heavy.

Aylmer, Ont.

E. J. HUTCHISON.

Don't forget that the L.S.J. will tell you how to get this extra ten pounds.

The Dairy.

It is a pleasure for us to inform our readers that we have arranged with our esteemed contributor, Prof. Robertson, of Guelph Agricultural College, for a series of articles on dairy farming to begin in our November number, and run through the winter season. The various phases of this all-important subject will be fully treated of, and we feel assured that our readers will be heartily in accord with us when we say that we could not have consigned the subject to a better authority in such matters than Professor Robertson. Through his labors by voice and pen he has attained the proud position of America's best authority in all matters pertaining to the dairy and dairy farming; and we feel sure that his articles will contribute in no small measure to make our pages more attractive and more instructive during the coming season.

The Prime Features of Good Butter.

Good butter carries with it invariably its own bill of sale, while bad butter is always, unless in the absence of the good, a drag upon the market. If either the home or foreign trade is being supplied the object of the dairyman should be to build up a reputation for butter of a first-class quality so that the purchaser may look with firm faith on the maker's brand as a surety for the quality of the product which he is about to buy. Extremely valuable though a good name may be in all business departments, yet it is doubly so for the buttermaker, for the reason that no other farm product may vary so much in quality as butter; ranging as it does in all degrees of excellence from the vilest of axle grease to the delicious gilt edge article. It does not take a purchaser long to find out the worth of a certain brand from a certain maker, and as soon as the dairyman can make his brand the synonym for a high class product the quicker will he secure a profitable and lasting trade.

It must be apparent to every observer that the home trade is not cultivated as it should be. It requires that a product of the highest order only be offered, and this is not in the majority of cases the nature of the output of our many farm dairies. The demand coming from our many cities is strong, and it is such as to respond readily to cultivation. The butter trade is one that depends almost solely on the quality of the output. The more choice the latter the greater the consumption, and hence the stronger the demand, and on this account do we make the assertion that this part of the dairy cannot be overdone. While there is a home demand largely dormant, what shall be said of the vast market across the ocean that annually requires millions of pounds of prime butter? To secure the top prices of this market it is clear that the standard of Canadian butter must be considerably raised, for from the consular reports we learn that American butter is low in their estimation, as evidenced by the fact that American butter sells for 6.60c. per lb. less than the Danish, 6.40c. per lb. less than the German, 5.91c. per lb. less than the Swedish, and 5.23c. per lb. less than the French. These figures teach us that to compete with these we must produce an article superior to theirs.

As to what constitutes good butter we shall endeavor to briefly outline. The first prime feature and the most important for butter to have is a pleasing flavor. Butter of flavor is so self-assertive as to make itself

Don't forget that if you advertise, you are likely to get ten purchasers abroad for one among your neighbors at home.

known as such to the buyer at once. The terms rosy, creamy, nutty, aromatic, etc., are often applied to butter, and in many cases those that use them do not understand their full force. The rosy flavor is said to be due to the volatile oils, and that it is only present in fresh butter, as it vanishes after the butter becomes from one week to two months old. The nutty flavor is best distinguished just after the butter has been washed and in a granular state before salting. This is a peculiar flavor of butter, markedly distinguishing it from oleomargarine and kindred products through the beefy flavor of the latter. For flavor about forty points out of one hundred obtainable is a just valuation. The body comes next in order with a value of twenty-five points out of a possible hundred. This refers to the firmness and solidity of the butter as told by the trier. If on running the trier in the tub and turning it around once it is found that the butter in the groove is perfectly round then it indicates that the body is all that could be desired, but if it is oval or flat it shows softness of body. Texture is placed at ten out of one hundred points. By breaking a small piece of the butter the texture may at once be seen. It should break like a piece of steel, showing the granular structure clearly. The body and texture are very important features, and have a strong bearing on the duration of the flavor, for if the former are not of merit the excellent features of the flavor do not last for any length of time. The color also has a marked effect on the disposal of the butter. Not only should it be a bright straw color but it should be clear and uniform throughout the whole mass. The salting will effect this materially if not carefully guarded against by distributing it evenly throughout. The color has been given a valuation of fifteen points. It is a question whether this is not too high, considering the fact that this requirement may be easily satisfied by the addition of annatto or other coloring matter. The neatness of the package, making the butter look attractive, and above all cleanly, is a point of prime importance. For this ten points at least should be allowed. On prints or small packages it is often noticeable that the salt gathers on the outside having the appearance of frost, which materially detracts from the looks of the butter. This is caused by the overabundance of moisture in the butter, which dissolving the salt carries it to the outside, and there evaporating leaves the salt in little crystals which gives the butter an unattractive appearance as well as flavor too salty for the average taste.

The Thermometer in the Dairy.

Though this valuable instrument, the thermometer, is within the reach of all, yet it is surprising how few make use of it in their work. We refer in the latter clause to the butter-makers of the farm, for it would be a practical impossibility for the factory butter-maker to turn out the product he does without bringing the thermometer to his aid. To guess at the temperature of the water in which the milk cans are set is a slipshod method, for no matter how experienced the hand may become by long continued practice in determining the degree of warmth or cold, it is nevertheless very apt to mislead and will undoubtedly give very diverse readings. Then, again, the matter of the temperature of the cream is a very important one, of far more concern, we venture to say, than even some of the best of butter-makers are inclined to put upon it. The temperature at which the cream is churned influences more or less, for weal or for woe, the per

Don't forget, too, that their prices are likely to be better.