

locomotive organs and digestive apparatus, as well as in many fevers, and febrile conditions depending on surgical operations. I have found it especially useful in the epizootic influenza, and in many sporadic cases treated since, also in plethoria, founder and constipation. In all these maladies it keeps the bowels open, diminishes the temperature of the body and increases the urinary secretion.

As a diuretic, it is one of the safest the farmer can use; an over-dose can do nothing worse than purge the animal. Not so with saltpetre, however, which is now most commonly used for this purpose, and the unlooked-for effects which the practitioner so often sees. In fact, inflammation of the kidneys and bowels, from over-doses of saltpetre, is one of the commonest occurrences.

As a cheap, certain, safe, and efficient purgative, there is no more desirable medicine for all of our domesticated animals, if the united testimony of the veterinary profession in France can be taken as a proof. It is used continually for horses, in preference to aloes, at the schools of Alfort, Lyons and Toulouse, and when given in the doses indicated above, will produce the desired effect. It is one of the mildest of purgatives, and produces the effect without irritating the bowels or increasing the flow of blood to these organs. For this reason it is invaluable in cases of congestion of the bowels, complicated with constipation. Nothing is commoner than to be obliged to purge a horse which has already congestion of the stomach or bowels, as in some kinds of colic, gastro-conjunctivitis, etc.; in all such cases, nothing is as safe and efficient as sulphate of soda. Much harm is done in these cases, even by our veterinarians, by always giving aloes which irritates the intestines and increases the congestion. With cattle, sheep, swine and dogs, it is in all cases, one of the best purgatives at our command. Many seem to prefer Epsom salts (sulphate of magnesia); why, it is impossible to say, unless because they are more expensive and are generally prescribed for people. Experience has shown that Glauber's salts are less irritating, and, therefore, much safer. From the large amount of liquid which this purgative removes from the system, it is especially indicated in serious effusion in the brain and other parts of the body. It is also very useful in acute enteritis in fowls, one ounce being dissolved in a quart of water and given as a drink.

A Butter-Maker's Experience.

A correspondent of the *New York Tribune* gives the following account of his method in butter-making:—

I keep sixteen cows; am milking ten this winter—six new milkers. I make 63 pounds of butter a week. The cows are a mixture of native with Jersey; but I should prefer they be half of each, for the reason that the milk is just as good, more in quantity, and the cows more hardy than all Jersey. Of course the native cows should be the very best. Hay is given three times a day, and one quart of cob meal and shorts twice a day. I add to this meal two quarts of skim milk. The cows are supplied with all the salt they will eat. Water is given twice a day, immediately after eating hay. Bed the cows twice a day with fine shavings and sawdust to keep them dry and clean. In winter card them regularly once a week.

I treat my cows with kindness, being very gentle with them, as such treatment has a great deal to do with a generous flow of milk. During the milking season my son favors them with his best whistling, not because he ever heard that cows are partial to such music, though he thinks that "our cows" relish it much and expect it morning and night. Doubtless it has a soothing effect upon them. My pastures are newly cleared, hilly, and rocky, with a western slope, and pretty good. I have about 20 acres of mowing land, and cut from 20 to 30 tons of nice English hay. My farm is on a hill; soil deep, strong and productive; first crop cut early. I cut several tons second crop in August. We scald our milk or heat it twice a day, from the middle of October to June 1st, in a tin pail over a kettle of boiling water. The pail will hold what I put into four pans, about three quarts to a pan. Milk stands 35 hours, then skim. In winter keep it warm in a room warmed by a soapstone stove, so that the temperature is about the same day and night from 50° to 65°. The milk is set on three racks, made in this way: An upright square post, eight feet long, six inches square, pivot in each end, slats across seven inches long; set 32 pans on each; skim twice a day, and churn three times a week. Cream is kept in as cool a place as possible without freezing. When ready to churn, it is warmed by pouring sweet skim milk into the mass in the churn to the temperature of 62°.

The butter is washed in three waters having the chill taken off; then weighed, allowing one-half ounce of salt to the pound. In winter we lump the butter the same day it is churned. We lump it over with a butter-worker, weigh it into one pound masses, lump it square with butter spatters, then stamp and send to market. I sell to a firm in Boston; have sold to them for four years, and got 55 cents a pound this winter, express paid by the firm.

How to Have Healthy Pigs.

Prof. Law, of Cornell University, writes as follows in regard to the proper treatment of swine for the prevention of disease:

Keep your hogs clean. Protect them from the hot, reeking bed of manure and close sleeping-place, where the emanations from decomposing dung, urine, straw and other organic matter are added to those of their own skins and lungs when huddled together in great numbers. See that both food and water are clean, in the sense of being free from disease germs and from the microscopic particles of decomposing organic matter which, within the system as well as outside it, furnish appropriate food for the disease poison, and favor its increase, while they depress its vital powers, and lessen the chances of the virus being thrown off. No less important is the purity of the air, since the delicate membrane of the lungs, perhaps more than any other, furnishes an easy mode of entrance for any injurious external matter. Finally, purity of the blood can only be maintained by a healthy functional activity of all the vital organs, which ensures the perfect elaboration of every plastic constituent of the blood, and the excretion of all waste matters that have already served their purpose in the system. By perfect cleanliness the poison, even if generated or introduced, will be virtually starved out, as surely as an army in a closely besieged fortress. But it will be observed that this implies the separation of sound from diseased animals, and the free use of disinfectants—solutions of sulphate of iron and chloride of lime, fumes of burning sulphur, etc.—to purify the air and other surrounding objects, as well as the simple clearing away of the filth. And it is here that the pork-raisers are most frequently at fault. Fifty or a hundred pigs are allowed to crowd together in a filthy manure heap, a rotten straw stack, or under a barn, subjected to the droppings of other animals as well as their own products. Their feeding troughs and drinking water are so supplied that they can get into them with their filthy feet, and they must devour the most obnoxious matter or starve. If under this abuse disease is developed, the healthy are left with the sick, as "they will all have it any way," and the result is usually a clean sweep. When hog cholera exists the sick should be placed by themselves under a special attendant, and under the free use of disinfectants; the healthy should be carefully watched, and on the first sign of illness or increased temperature, as ascertained by the introduction of a clinical thermometer into the rectum, they should be at once taken from the herd and carefully secluded. This, with active disinfection, will enable the owner to cut short an outbreak, and save, perhaps, the great majority of an already infected herd. Again, the sale of animals from an infected stock, to be removed from the premises alive, should be severely punished, and the disinfection of the buildings where the sick have been should be made imperative. We shall obtain the greatest success with this disease when we treat it as a contagious malady, and wherever it is found to exist give our main attention to prevent the further generation and dissemination of the poison.

Sugar Beets for Milch Cows.

Just looking over the article in your issue of January 1st, under the head of "Diary of a Ruralist," I find that he complains of the shrinking of at least 50 per cent. in the quantity of his cow's milk, from feeding her sugar beets; and then asks, "Are they good feed for milch cows?"

For myself, I will answer, unhesitatingly, yes, better to produce an abundant flow of rich milk than any roots I ever fed, except parsnips; and especially far superior to turnips, being exactly the reverse of his experiment in feeding. I am satisfied something else is to blame in this, other than the beets; for whenever, for upwards of 30 years past, I have invariably cultivated the sugar beet and fed it largely to all sorts of my domestic animals, with the exception of hard working horses, both raw and cooked, and have ever found it highly beneficial for them.

No longer ago than last November, our family cow began to shrink somewhat in her milk, when we were feeding hay with an additional mess night and morning of Indian meal and wheat bran half and half, with a pint of oil meal. I then directed most of this mill feed to be stopped, and in place of it, ordered a peck of sugar beets for the cow night and morning. On this change of food she began to increase her milk, and in a few days gave the same quantity that she had done previously when on pasture, and before being put up in the stable on hay and mill feed.

Sugar beets must necessarily be superior feed to all domestic animals, and especially to such as are giving milk, for they abound in saccharine juice; and to show their value for feeding purposes as well as for making sugar, I will refer to several analyses recently made of them in England, reported on pages 24 and 25 of the *London Agricultural Gazette*, of Jan. 3rd. These give a water over 7 to 14 per cent. of solid matter. In our drier and hotter climate, I should suppose the average percentage of sugar and solid matter would be increased in the beet crop; but this would depend much on the size of roots and the soil where grown. To produce roots of the best quality, they ought not to be grown in too rich a soil, like that of river bottoms or the most fertile of prairies, nor should they be manured too highly in a poor soil, and what is of still more importance, probably; they ought to be grown standing so closely together in rows as not to exceed 5 or 6 lbs. in weight each. I prefer them even less than this, say 4 to 5 lbs. on the average. I would not give a dime per bushel for great, overgrown roots, weighing 15 to 20 lbs. each. I have occasionally grown detached roots of this weight, and for stock feeding found them little better than white oak chips. In fact, neither my pigs, sheep nor cattle would touch them cut up raw and placed before them, so long as they could find anything else decent to eat; while roots of a proper size they would devour with avidity, and grow fat or give great messes of milk from them.

I would suggest to "A Ruralist" to try sugar beet feeding again to his cow, but in so doing supervise the thing himself, and not trust it to any one else, as I have found that my man John, as well as Jack and Bill; occasionally made mistakes in one way or another.—*Cor. Rural New Yorker.*

Butter in the West.

In a report of the make and quality of butter in the West, this season, published by the *Chicago Western Bulletin*, the following information is presented:

Our replies in regard to the summer and fall make generally promises a tolerably good showing. From present indications the prospects are quite favorable, though probably not fully as encouraging as last season. In a number of sections our correspondents report very dry weather, and if this drought should continue, possibly a material falling off in the make would be the result. But at present pasturage, as a rule, is generally fine; the grass is reported green, with a sufficient moisture to insure a good make of butter. The night dews of late have been unusually heavy, which afforded some moisture to guard against the drying of grass, and naturally was of some benefit to the preservation of food for cattle. Hence, it is fair to presume, from the indications at present before us, that fully an average fall make will be witnessed, and possibly a large one in the event of a season of rain.

The total amount of butter on hand at the points from which we have obtained information aggregates 1,150,500 lbs. for the season of 1876, against 1,245,300 lbs. last season.

THE PROVINCIAL EXHIBITION OF NOVA SCOTIA.

—The *Sm.*, Colchester, N. S., gives the following good advice to the Nova Scotians relative to the Provincial Exhibition. The advice is certainly one of general application:—"Let us do our best to make the affair a grand success. Let our farmers come to the front with their exhibits in every department. Our Agricultural Societies must do all in their power to forward to success the undertaking we have commenced. Every assistance that possibly can be given should come from the farmers in our own county, at least. This assistance can be shown in as liberal a vote of money to the prize list as the funds of the different Societies will permit, in making as many entries in all classes and as early as possible, and in working with the General Committee in every way to give success to the exhibition. Any indifference on our part must produce correspondingly greater indifference on the part of those living outside the county."