



Agricultural Department.

MOLASSES FOR FATTENING STOCK.

We heard it years ago, but a paragraph in one of the agricultural papers just now brings to mind the claim that molasses is an excellent material for fattening farm stock. Very likely too much is claimed for its merits, but we have no doubt that, under certain circumstances, it pays well to feed it in small quantities. When a creature which has no organic disease, but from neglect, short keeping, or a very poor quality of food, has lost its appetite and become very thin in flesh a small quantity, fed to it daily may prove a great benefit. Molasses is also a useful article of diet when it is desirable to fatten the animals as soon as possible.

That any one should seriously propose to feed molasses to horses, cows, sheep or hogs, at first thought may seem ridiculous. But that such a course is founded upon philosophical principles, has been thoroughly tested by actual trial, and proved to be correct. Some chemists have believed that "starchy" food is converted into sugar by the stomach, before it is used to nourish the body, and it is a well-known fact that pure sugar will very rapidly fatten animals to which it is fed. But for feeding to farm stock, molasses is to be preferred to sugar, because it is cheaper and in better shape to be fed without waste. Not only will benefit be derived directly from the fattening properties of the molasses, but it will also improve the appetite and cause the animals to which it is fed to eat more food than they otherwise would. It is easily digested, assimilated rapidly, and consequently shows its effects very soon. One writer on this subject has said that if molasses is fed to a poor horse, he will show a marked change of condition in a few days. It is said that too much sweet, of any kind, if fed to animals, will prevent their breeding readily. Cows which it is desired should raise calves, should not have more than a pint of molasses per day, but to those which are being fattened, three pints may be given with good results. Probably the best way to feed it is to cut hay or clean straw, throw on a little boiling water in order to make it soft by partial steaming, then wet and thoroughly mix with water in which the molasses has been diluted. Care should be taken to use no more water than the hay or straw will readily absorb. For hogs, the molasses may be mixed directly with their food, and it is said to produce wonderful results.

For this purpose there is no need of obtaining special and expensive articles. A low grade, if clean and sweet, as some of the low grades are, will answer every purpose, and be much more profitable than a high-priced brand.—*N. B. Homestead.*

TESTIMONY ABOUT COOKED FEED.

A. H. Proctor writes to the *Ohio Farmer* that he has been taking some testimony as to the results of feeding grain in its natural and in its cooked state, and he says:—
"For the last year I have travelled very extensively among the farmers of Ohio and Indiana, and find that this matter has attracted their serious attention. If twenty acres of corn cooked for feed is worth thirty acres fed raw, then the subject is worthy of the best judgment. For the proof of the proposition, I not only submit the testimony as given to me of hundreds who have practiced cooking corn, oats, barley, buckwheat, potatoes, roots, all kinds of ground feed, etc., but give a few proofs of the many who have, by actual tests, found that on all kinds of grain an average of one-third is saved, and on potatoes and all kinds of roots, fully three quarters. Messrs. Wilson & Bros., dairymen, of Muncie, Ind., cook ground feed for their cows, and say that since they commenced cooking the feed their cows have increased their milk fully one-third. Mr. M. M. Lehr, of Lakota Co., Ohio, has practiced, for a long time, cooking corn in the ear for his milk cows, and testifies to the same thing. Mr. T. Middleburg, of Union Co., Ohio, a breeder of fine hogs, testifies that two-thirds of the corn cooked, is very much better than the whole fed raw in the usual way; particularly for pigs and young hogs. Mr. T. J. Edge, of Indiana, made the following experiment. First, shelled and fed whole; second, ground and made into chop, with cold water; and third, ground and thoroughly cooked. After a fair test with a litter of five pigs feeding an equal length of time, giving each the same time and test, I found that five bushels of whole corn made 47½ pounds of pork; five bushels less toll of corn, ground and made into thick slop with cold water, made 54½ lbs. of

pork; the same amount of meal well cooked and fed cold made 83½ pounds. The second experiment was with new corn in two forms, viz. on the ear and shelled and ground before boiling. Ten bushels on the cob made 29½ pounds of pork, fed in the usual way, on the ground. The same amount shelled, ground and cooked, made 64 pounds.

"From my own observations I find that farmers—in the localities where hog cholera prevails—who cook the feed, lose no hogs, and they assure me that if farmers would adopt it, and at the same time mix in salt, copperas and sulphur, hogs would be healthy."

KEEPING POTATOES.

M. Carriere, a French writer, publishes some interesting particulars regarding the preservation of potatoes during the winter and spring. The methods usually employed he characterizes as both good and bad; good, because the atmosphere of cellars or pits is usually damp enough to prevent the too speedy evaporation of water from the tubers, and bad, because the cellars are almost invariably kept closed, so that occasionally the temperature rises considerably and induces the very evil most to be avoided, namely, the sprouting out of buds. In storing potatoes for seed or culinary purposes, the main object in view is to prevent their germination, so that it may not be necessary to pick out the budding eyes, a process which invariably induces a rapid deterioration in quality and strength. To prevent this the store-places should be wholesome, dry, and freely ventilated. In extremely cold weather the temperature must be raised by artificial means, but an excess of warmth is to be carefully guarded against; it is sufficient to keep the temperature just above freezing point, the arrival of which may be proved, in the absence of a thermometer, by the appearance of ice on a shallow pan of water purposely kept in the store-places. These measures suffice in the case of potatoes intended for planting out, but where they are required for domestic consumption the further precaution must be taken of shielding them from the action of light. If this be not done, the tubers are apt to turn green, a change which is nothing to their detriment for seedling purposes, but which is attended by chemical alterations that give them a bitter taste, and quite spoils them for domestic use. By attention to these points, M. Carriere has succeeded in keeping old potatoes in good palatable condition up to the middle of June, or sometimes, as in the present year, to the middle of July, by which date the new potatoes are no longer scarce, dear, and tasteless, as is the case at the time the old stock usually goes out.—*N. Y. Observer.*

WHEAT GROWING.

At a meeting of the Central New York Farmers' Club, held at Utica, Dec. 1st, Mr. John Osborn, of Paris Hill, told the club how he had learned to secure absolute certainty in growing wheat,—that is absolute certainty against complete failure. His method is to plow good clover sod as soon after haying as possible—(between the first and fifteenth of August) in soil blowing, to a depth of six or eight inches; pulverize the soil as thoroughly as possible until the last week in August, and apply manure evenly, working it completely into the soil. He stated that he had never suffered entire failure when he pursued this plan, though of course the yield was better some years than others. A somewhat different plan should be employed to produce an extreme crop, all things being favorable. To do this, instead of plowing the sward, he would plow land which had been under cultivation the preceding year, or which had yielded crops of sowed corn. He recommended nature having much ammonia, and cautioned his hearers against applying an excess of manure, thus causing the wheat to lodge. He was in favor of sowing as deep as three inches, to prevent uprooting, and he preferred broadcast sowing. He would never plow more than once, nor would he summer-fallow. He was especially strenuous in urging the protection of exposed surfaces during the winter. Some means should be employed to collect a covering of snow. Rust and blight are caused by partial winter-killing more than any other thing. He had tried an experiment with a view of discovering a method of protection. He planted rows of corn north and south, four rods apart, across his wheat field. This was done because the prevailing winds are westerly or westerly. He gathered the corn, and left the stalks to collect the snow and arrest the sweeping winds. He thus gained complete protection for his exposed field. He did not approve of plowing in farm-yard manure, and believed that a mixture of hog dung and horse dung made in the pen by the swine is the most efficient fertilizer for wheat. A sprinkling of this compound should be spread over the field. He had found that turf plowed in the spring and sowed to peas, is a val-

uable preparation for wheat-sowing in the fall. To kill quack he would summer-fallow thoroughly.

ENGLISH SPARROWS.—H. McIntire, Ala., asks what the English sparrow could do in ridding them of the "cotton caterpillar." The sparrows are domestic birds, and live around dwellings. They require houses, or if building, a dense growth of ivy or a thatch afford convenient places, they will build their nests in these. They have about three broods a year, and as they feed their young on animal food, the number of insects they destroy is very great. So far, all is in their favor, but the old birds do not live entirely, if largely, upon insects, and the young, when fledged, also require other food, and they devour grain, seeds and small fruits, and in Europe do so much mischief that they are classed among the pests. They do not migrate, but remain all the year round, and when there is much snow they must be fed. In Europe they are charged with attacking and destroying the buds of fruit and other trees, this might be prevented by supplying them with food and water. European farmers who regard them as a nuisance, strive to reduce their numbers by destroying their nests, and do not take into account the good they may do early in the season. Having both sides of the question in brief, you can judge if the balance is likely to be, in your case, in favor of or against the introduction of the birds.—*Agriculturist.*

MOULTING FOWLS.—We are accustomed to see the poultry left to its own unhappiness during the moulting season, and the "masterly inactivity" with which the fanners permit the birds to look after themselves is almost epidemic. The moulting season is really the most trying to fowls, and if nature can be assisted in the process of changing the feathers a real benefit will be done. The blood is during the moulting period heavily drawn from for the materials which compose the feathers, and although birds may at the outset be strong and healthy, the drain upon their system is so great that they are weakened and debilitated, and their laying proclivities are entirely abandoned. If we are able to give as food elements which will quickly replace the exhausted constituents of the blood, we obviously assist in its transformation. We have found that fowls supplied with refuse, and powdered scorched oyster shells moult quickly, and do not lose their strength and vivacity to any perceptible degree. If their drinking water is supplied with rusty iron, all the better, and one drink of milk each day is of great value.

HOGS' FOOD.—Of the different kinds of grain, oats is peculiarly the horse's food; always safe, digestible and nutritive. Barley is the best substitute for it. Wheat and Indian corn are sometimes given, but both are unsuitable; the first is too concentrated, and the last is too heating. They ought to be sparingly used, and only when ground and mixed with chaff. The offal of wheat is never objectionable. Grain is always more advantageously fed when ground or crushed, and wet some time previous to eating; and it is still better when cooked. On both sides of the Mediterranean, in the Barbary states, in Spain, France and Italy, much of the food is given in small baked cakes, and the saving in this way is much greater than the expense of preparing it.—*Stock Journal.*

SOAP-SUDS FOR GRAPES.—A. J. Downing says: "I have seen the Isabella grape produce 3,000 fine clusters of well-ripened fruit in a season by the liberal use of manure and soap-suds from the weekly wash." The effect of soap suds on other plants is something surprising. Cypress vine, which had remained stationary a fortnight, when about two inches high, immediately began growing after a good watering with soap-suds, and grew six inches the first five days.

SOFT-SHELLED EGGS.—In the long run we have found far more success, both for ourselves and with others, from pounded raw oyster shells, as preventives of soft-shelled eggs, than anything else. A little lime in the water also helps.—*Wright's Poultry Book.*

GROOMING HORSES.—Where work horses are worked six days in the week, thorough grooming is absolutely essential to their health. The more highly they are fed the more important it is to clean them. Most men use the curry-comb too much and the whisk and brush too little.

—During hard freezing weather, and especially if the ground is covered with snow the rabbit resorts to the bark of small shrubs and trees for food. Their ravages are often very damaging to young trees in the nursery or orchard. It sometimes becomes a question of importance how these ravages may be prevented. The usual remedy is to sprinkle blood or rub grease on the trees likely to be injured by them. This is generally effective, but not always. When trees are tall enough for the branches to be out of their reach, a simple rubbing of the trunks with grease will be sufficient to prevent all damage. If a little

tobacco is added, it will make the matter more sure. The rabbit is a clean beast, and does not relish the wood.—*Christian Union.*

DOMESTIC.

THE VALUE OF CONDIMENTS

By condiments we mean substances like sugar, spices, vinegar, and others that are employed to impart flavor and piquancy to the staple foods. They are usually regarded as non-essential, and some writers on dietetics have gone so far as to condemn their use, unless in rare instances and in the most infinitesimal proportions. Like all good things they are liable to be abused, but when properly used they are valuable elements in our daily food. Professor Voit of Munich, than whom there is no higher authority on such a subject, considers that their importance has not been sufficiently recognized. It is not enough that food should contain alimentary principles in proper quantity, to render it really nutritious there must also be a supply of condiments. These have been compared to oil in a machine, which neither makes good the waste of material nor supplies motive power, yet causes it to work better, they render essential service in the processes of nutrition though they are not of themselves able to prevent the waste of any part of the body. "A dietary deprived of condiments, a mere mixture of alimentary principles without taste or smell, is unendurable, and causes nausea and vomiting." It is not until condiments are added to aliment that it really becomes food. Extreme hunger may enable us to dispense with them, as it may compel us to devour what at other times would be disgusting, but under ordinary circumstances they are an essential part of our diet.

Condiments have an important influence upon the process of digestion and nutrition. The mere sight or thought of a savory dish "makes the mouth water,"—that is, it makes the salivary glands pour out their secretion copiously, which is an important stage in digestion, especially for certain articles of food. Experiments made upon dogs show that a similar effect is produced upon the gastric secretion, and thus the work of digestion is further promoted. The loss of the sense of taste would be not merely a loss of enjoyment, but a positive injury to the digestive system. The very smell of food may do us good, just as certain odors will restore a person who has fainted.

It does not follow because condiments are useful, that we may not have too much of them; on the contrary, their best effect depends upon their being used in moderation. The more decided the flavor of any article of food, the sooner does it pall upon the appetite. It is one of the peculiar merits of French cookery that flavors are so delicately blended, no one is specially prominent, and yet by their different combinations a wonderful variety of appetizing effects is produced. We, like the English, are apt to use condiments in a coarse, reckless way, and thus miss their finer and more exquisite effects, besides losing much of the benefit that might be derived from them. By a nicer care in their employment, the plainest and simplest diet might be made as agreeable and delicious and more digestible.—*Journal of Chemistry (Boston).*

MEAT BALLS.—Chop fresh meat very fine—beef, veal, mutton or chicken; beef is the nicest—roll dried bread very fine, add salt, pepper, cloves and mace, and one egg. Mix this with the meat. Pound all well together and make into balls a little larger than a hen's egg. Roll in bread-crumbs and egg, and fry in hot lard. Dish with a nice gravy flavored with walnut ketchup. Any cold meat prepared in this way is very good.

TURKEY OR CHICKEN STUFFING.—Grate three cups of bread, then rub them through a colander; pick out every bit of crust; put a drop of water to the crumbs; add a scant cupful of finely chopped suet; pick out all the stringy parts. Add chopped parsley, if agreeable to all, and, if liked highly seasoned, a little sweet marjoram and summer-savory, but not unless it is known to be pleasant to all who are to partake, for these herbs are injurious to many. Grate the rind of one lemon and a very little nutmeg; add pepper and salt. Bind all together with one or two beaten eggs.

FRUIT PRESERVING.—Blanch two ounces of good sweet almonds, and pound in a marble mortar to a paste. Beat six or eight eggs very thoroughly add to this the almond paste and a pint of sweet cream stir into this a pound of suet finely chopped, a pound of washed and dried currants (currants that have been washed must be thoroughly dried, and then rolled in flour, or the pudding or cake will be heavy), a pound of stoned raisins, and sugar and spices to suit the taste, some candied orange-peel or citron cut in small pieces, and two glasses of currant jelly dissolved in half a glass of water. Beat all well together and boil five hours. Serve with hard or sweet sauce.