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Communications for the Agricultural Department should be addressed to the Agricultural Editor at Springfield, Vt.

I. B. Arnold says that coloring butter by annatto does not affect the flavor or quality. Carrots destroy the flavor by their decomposition.

L. B. Arnold says that cream will rise more quickly on shallow than on deep set milk. Those milk globules having a low specific gravity rise very slowly, and in deep set milk they may never reach the surface, and are lost.

The horns of young cattle may be turned in any direction, as they grow, by scraping on the side toward which it is desirable to turn them. If they drop, scrape them on the top, whole length, and they will come up where they belong.

Mr Jonathan Talbot of Home, N. Y., writes to the Town Gentlemen an account of his method of raising sweet corn for selling. His crop was sown so thin in drills that the ears formed and grew to their full size (so that he picked and sold \$50 worth of ears from an acre, taking about half of the ear off of the earliest half), and the result was highly satisfactory. The cobs were staled the hot afternoons and fed all they would eat, and it was run through a hay cutter and fed to the calves.

Our friends the nurserymen of Geneva are in a state of mind against the frauds of tree peddlers, and have procured the copying of an elaborate catalogue of charges against them in most of the agricultural papers. There is good basis for the complaints, without doubt. If we may suggest a remedy for this evil which will not be agreeable to the nurserymen aforesaid, it is to buy your trees of some of the reliable nurserymen of Vermont, getting trees adapted to our climate and soil.

The following animals were purchased by New Englanders at B. B. Groome & Son's sale of Shop-Horses, at Winchester, Ky., October 14: Fennel Duchesne, 5th, B. Sumner, Woodstock, Ct., \$5,100; Duenna Duchesne, 6th, B. Sumner, \$1,050; Highland Maid, 6th, J. C. Tyler, Brattleboro, \$6,750; Lady Malakoff, 3d, B. Sumner, \$6,750; Bright Eyes, 9th, P. Steadman & Son, Chinopee, Mass., \$1,175; Star Brow, 4th, P. Steadman & Son, \$390; Bates Lad, J. C. Tyler, \$400.

For green manuring the pea crop is a good one, as it affords much nitrogen, drawing on the rain and the air for supplies. The land should be in readiness for early sowing, as two crops may be grown. Seed liberally, three or four bushels to the acre. As soon as the peas are up, sow with plaster, a bushel to the acre. The crop should be plowed in when fully grown, but before the seed ripen, and a second crop sowed and treated as before. Two crops will fit the land for wheat or barley, to be followed by clover.

The Ohio State Wool Growers' Association resolved, last year, that it was advisable to have record of pedigree of fine-wool sheep, and appointed a committee to have charge of the work, including the examination of sheep and their pedigrees, and compiling, editing and publishing the "United States Register of Merino Sheep"—a rather cumbersome job. And now parties who have paid money to this committee for the expense of examination of their flocks (one man paying \$200) are making pointed inquiries for the book.

The subject of fall feeding and mowing rows is up for discussion in the agricultural press, and is having a good hearing. The prevailing opinion of the most successful men who write upon the matter appears to be that fall feeding is injurious, especially so if it is close, or by heavy animals; and that late mowing of rows is not advisable. The common custom is to mow all that is worth mowing, and then feed off all that the stock can get.

While we would deprecate any system which leaves the shed exposed to winter with so much of aftermath, we have found nothing to kill out the grass, and especially clover, more effectively than a heavy crop of rowen left on the land.

The epizootic still lingers among the horses. The number of deaths is small; but the number of animals that do not recover is far from small. The disease appears to be so light that there is no alarm, and people do not trouble themselves about the horses unless they are "scart." They are kept at work, and palliative treatment neglected, while the lungs are so congested that their office is imperfectly performed. Any considerable effort put them out of breath. Exposure to storms or chills aggravates the trouble. The result in many cases is organic disease more or less severe, which eventually spoils the horse.

Those animals that are used carefully suffer as little as those that are idle; and those that are stabled constantly and do nothing are affected like those running in the pasture, or at work, and frequently suffer from a more severe attack. Careful

avoidance of exciting causes, such as exposure and fast driving, or heavy drawing, with a relaxing diet, are about all that it is worth while to do in ordinary cases. Oats, instead of corn, for grain, and a few quarts of potatoes, or a bran mash, daily, will usually bring them through without other treatment.

Topping Turnips.

It has long been our custom to top turnips with a hoe and pull them with a hook, drawing four rows of tops to a ridge and the four rows of roots into another. And after hauling off the turnips to gather a portion of the tops and cart them away for the cattle. The quantity of tops on an acre is so great that it is not prudent to turn in cattle except for a short time, unless most of the tops are hauled off. The tops are in the way about palling and gathering the roots, and they are cut up and trod into the dirt, and many wasted. This year we have tried on a (to us) new wrinkle—cutting and hauling off the tops before pulling the roots. Haul two rows together as they are topped. A man follows along with a pitchfork and throws them into small racks. The team comes along, astride of a row (rows three and a half feet apart) and the tops are thrown on and hauled off. Two men topped and hauled to the barn the tops of an acre in half a day, and pulled, cleaned and put them in the cellar (800 bushels) in two days more. The work of finishing up the harvest of the field was found to be much more satisfactory. And we wonder why we never thought of it before.

Turnip tops are a valuable article of food for any stock. These suggestions are early for the next crop, though rather late for this.

Mr Hill's Lamb.

Mr R. G. Hill, of Elmire, feels aggrieved at the statement of Mr Thorpe in the Farmer of October 5th, that Mr Town denied that his lamb is of the same blood as Mr Hill's flock, as Mr Hill informed Mr Thorpe, at the Lamotte county fair; and sends us a communication covering eleven closely written pages on note paper, to show that the blood of that lamb is identical with that of his flock, and in glorification of his sheep.

It would give us pleasure to allow Mr Hill all the space he is disposed to use for these purposes; but he must bear in mind that the Farmer is printed for the benefit of many, not for the use of one. Mr Hill states in substance, if we have unraveled his letter correctly, that he gave a ewe lamb to his brother. She, in course of time, brought a pair of ewe lambs sired by Mr Hill's ram. When they were three years-old and with lamb, by Mr Hill's ram, they were sold to J. W. Bailey of Montpelier, who sold them to Cornelius Chandler, of the same place. They raised four lambs, and the ensuing autumn Mr Chandler sent one of them to Connecticut, to be served by Hardest Loomis' ram, Viceroy. (Loomis having three Cotswold rams, "Viceroy," "Empress 2d," and "His Royal Highness" all bred by Robert James, Northwold, England.) She brought two lambs. The next fall Mr Chandler bought a ram lamb of Mr Loomis by Emperor 2d, out of a Game ewe, and Mr Hill bought a ram lamb of Mr Loomis, by Monitor out of an imported ewe. A few years after Mr Town bought of Mr Chandler the Loomis ram and one of the ewes got by Viceroy, and "this ewe is claimed to be the grand dam of this lamb" about which there is such an uproar. Several years after Mr Hill bought Mr Town's flock including the Loomis ram and the Viceroy ewe. The ram died at the end of a year, and one of his lambs now two years old is the sire of Mr Town's which is out of a ewe bought by Hill of Town and sold back to him last fall. Mr Hill offers to make oath to his statement and prove its truth.

If the claim that the Viceroy ewe is the grand dam of the Town lamb is a valid claim—and Mr Hill has not a word to say as to who claims it, or whether it is true—and if Mr Hill's statement is all true (and we do not call it in question, as we do not propose to take up the question of veracity between Mr Hill and Mr Town), then the lamb bought by Mr Town at the Lamotte county fair is in blood so closely allied to Mr Thorpe's as to justify his statement to Mr Thorpe which is the latter repeated in his report.

How Carbonic Acid Absorbed from the Atmosphere by Plants is Restored.

Our correspondent, Mr S. E. Chamberlain of Wilmington, is writing for the Record and Farmer a very interesting and valuable series of scientific articles on "Plants." In the last number he shows how the enormous amount of carbonic acid absorbed from the atmosphere by plants in the process of growth, is returned and the equilibrium maintained. Forty or fifty per cent of the bulk of all plants is derived from carbonic acid. Before the advent of man upon the earth, if geology is to be trusted, and before the formation of soil, the carbonic acid of plants was all derived from the air. As carbonaceous matter from vegetable decay accumulated in the soil, its volume in the atmosphere decreased until the proper proportions for supporting animal life were accomplished. But when the earth became inhabited by the human race and agrarians of animals, the withdrawal of carbonic acid from the atmosphere by plants was continued, in less quantity by as much as they drew from the soil, but sufficient to occasion fatal consequences if not restored.

This is accomplished in several ways:—By the decay of vegetable matter; by combustion; by respiration; and by volcanic agency. The air as inhaled contains one twenty-fifth part of its bulk of carbonic acid; when expelled, one twenty-fifth part. Its volume has been increased one hundred times by the carbon in the daily food, and

has been estimated to amount to five ounces daily, for each adult. Calling it three ounces, and allowing twice as much for animals, the quantity exceeds the enormous weight of 300,000 tons daily emitted by respiration.

It is estimated that in the old volcanic district on the left bank of the Rhine the annual emission amounts to 100,000 tons annually. Add to this the contributions from other districts upon the continent, the western hemisphere and the islands of the sea, and its magnitude becomes enormous. "And when it is considered that the carbon furnished by these districts has not been drawn from the atmosphere, certainly not within the historic period, the importance of this source of supply becomes the more manifest.

How beautiful, how sublime, how truly magnificent, are the operations of nature in the incision and care of organic life; in her slow transitions through unnumbered ages necessary for a higher existence! The flora of the pre-historic period has passed away, and with it the coexistent condition of the atmosphere, for the advent of a newer and higher organism; and the fossil remains of the coal measures are its only historians. May not David have had a glimpse of the subject when he exclaimed? "O Lord, how manifold are thy works! In wisdom hast thou made them all."

New Hampshire Board of Agriculture.

We learn from the Bulletin of the Board that meetings will probably be held at Keene and Alstead for Cheshire; at Norwich and Sunapee for Sullivan; Fisherville and Pembroke for Merrimack; Franconia, Greenville and Antrim for Hillsborough; Garrettsville and Belmont for Grant; Stratford and Stewartstown for Coös; Rockingham and Starkfield for Rockingham; and the Strafford townships for Coös; Rockingham and Stewartstown for Merrimack; Greenville and Antrim for Hillsborough; Garrettsville and Belmont for Grant; Stratford and Stewartstown for Coös; Rockingham and Starkfield for Rockingham; and the Strafford townships for Coös.

A Traditional Mistake.

Those hard frosts, which were upon us on the mornings of October 13th and 14th served, pretty effectually, to explode the old-time fallacy that sweet apples would withstand, or bear, without injury a harder freeze than four or six. Not so. Other duties made it necessary for the writer to defer the picking of his apples till after the hard frosts came. Then it was made certain that what had been taught in regard to the comparative injury, by freezing of sweet and sour apples, was not correct. Taking my trees through the orchard, on the average and in the same locality, the sweet apples were more injured than the sour ones. How this erroneous idea came to be generally accepted as a fact, is a matter of some surprise. It shows that it is not always safe to "take stock" in theories which have been handed down to us, but seems to make it quite proper that we should prove all things and hold fast to that only which stands the test.

D. T. APRILL.

Northfield, Oct. 25.
[The habit of considering a principle established by the result of a single experiment, incident or accident, works great mischief with the fundamental principles of some farmers. A farmer finds sour apples frozen and sweet ones unfrosted; forthwith, he promulgates the doctrine that sweet apples stand frost better than sour ones, and the saying is passed, along and accepted without inquiry until it becomes a tradition, and it is like disturbing the bones of the defunct fathers, to raise a question of its accuracy.]

Treatment of Barren Apple Trees.

MR. EDITOR.—In a recent number of the Vermont Farmer, I received through your kindness, a correspondent asks, "What can I do to make my apple trees bear?" For his and others' benefit I will relate a little experiment of my own.

I have a small Northern Spy in my small orchard, now just nine inches in diameter one foot from the ground. The tree is apparently healthy; the bark is green and smooth; the top well developed, but a little too dense notwithstanding some severe prunings. The soil is a rich loam, not too wet, and has been kept in grass for several years previous to 1874. This has been never, until this season, borne a half bushel of apples, all sold; and I have been tempted to take the advice of your correspondent, "how it down and cast it into the oven."

In the spring of 1874 the land was well manured upon the sward with stable manure, plowed and planted with potatoes. Last spring it was again plowed, sowed with oats and seeded. But before plowing, one barrel of unslacked wood ashes was spread over the tree over an area equal to that denuded by the top. And what do you think has been the result? A fine crop of apples, quite as many as a tree of this size ought to bear, many of the limbs bowing down with the weight of fruit. And the fruit is large and smooth, and of rare excellence compared with the few rarely specimens of previous years.

I believe our orchards require lime and potash in such combination as they are found in wood ashes. It is doubtful if stone lime and potash from the manufactory can be supplied with the same result. The truth seems to be that our soils have become exhausted of their inorganic elements with which they are of equal importance with the organic; and the application of farmyard and stable manures and other carbonaceous matter, by no means to be neglected, does not supply their place.

When the farmer understands that com-

bustion and decay by natural process are identical in their final results—the resolution of the plant into its elements—he will the more readily see the value of ashes as a means of returning the soil to its primitive fertility, and allow of this precious fertilizer to be wasted or sold from the farm.

A Specimen of Close Calculation.

When riding through a part of Lamotte county, not long since, we passed a good specimen of economical husbandry. The place looked as though it might have come from Switzerland, or dropped from fairyland, we could not tell which. It seemed so attractive that we inquired into some of the particulars of such apparent nice calculations. The proprietor of this place (a mechanic by the way) owns a quarter of an acre each side of the highway. On the west side of the highway rises an abrupt ledge; but by some magic, or by some art known to mechanics, he has built a house on the side of it, containing three rooms besides the parlor, chamber stairs, veranda, wash-room and woodshed on the ground floor. The parlor is 14x15 feet; kitchen 14x18 feet; bedroom 9x15 feet. Three rods from this building is the hen house with its yard. On the opposite side of the road is the barn, 10x22. And on the space unoccupied by buildings, he has forty young apple trees, and has raised about twenty bushels of potatoes; six of carrots (the carrots he sells to dairymen for coloring butter); three of beets; one of onions; two of tomatoes, and beans and peas sufficient for family use. We will not forget the brilliant flowers, and the little plot of green in front of the house.

Query.—If every ledge, knob and corner of Vermont was cultivated up to this standard, how many families could the state support? P. L. HOPKINS.

East Berkshire, Vt.
[The extraordinary results attained by a few farmers, and especially by mechanics who have a little land, in making the soil produce and give returns for labor bestowed cause the land of a large proportion of farmers to look like a desert.

There are two reasons why such a culture of the soil is more satisfactory to an honorable pride and ambition, and it pays.]

Editor Vermont Farmer.

—At the request of a brother farmer, I send you the following account of the weight of male calves that were reared in this town. The farmers in this vicinity hearing that the people on the east side of the Green Mountains in Washington county, had weighed a few of their calves, it was decided to meet at Lincoln Centre, on Saturday, October 10th, to weigh a few of the calves that were reared here.

On account of the rain only two calves were weighed. The first one was a very fine animal, color a dark red, nearly full blood Durham, six months and one day old and weighed 600 lbs., owned by Nelson Hill of this place. The other one was owned by a Mr Timothy Turner also of this town. Mr Turner's calf is a good-looking animal, weighing 555 lbs. If the people of Warren or vicinity can beat this we should like to hear from them. B. C. HILL.

Lincoln, October 18.
[Lincoln farmers may well be proud of calves like those mentioned in Mr Hill's letter. There is no doubt that we, most of us, sink money every year by light feeding of stock. It costs but little more to make an animal thrive than to hold it weight without loss. Animals which are to be kept for breeding purposes must, of course, receive different treatment but those raised for market or for oxen should attain their full growth in the fewest possible number of months.

Our correspondent's communication would have been more complete and of greater interest to farmers had it informed them what food and how much the calves mentioned received, and its cost.]

The Jersey Breed of Cattle.

EDITOR VERMONT FARMER.—While attending Lamotte county fair, I was much surprised to see the increased numbers of Jersey cattle compared with the number shown but a few years ago. Judging from this they seem to be coming into favor among dairymen. As butter and cheese seem to be destined to be the principal products of Vermont it becomes a question of very serious importance, and a question that many are trying to solve, what breed of cattle are best adapted to our Vermont farms, under various circumstances considered. I have been acquainted with this breed over forty years; and while I admit their very excellent qualities, I can but give a word of caution, lest many by going with the multitude will be disappointed. I am very sure that they are not the breed for a majority of farmers to keep. And one very great and serious objection would be that they are very tender as regards enduring cold. If they are kept to the exclusion of other cattle, and receive the same miserable care and shelter, often times having to stand on the north side of an open fence, and with poor and coarse fodder, and too often with a scanty allowance of that, I think they would be almost a complete failure. Another objection is that they are so small that if adopted they would greatly reduce the supply of meat, not only at home here in Vermont, but throughout New England and the Eastern markets. I am not sure but I should be safe in saying that the reduction would be one-half. Nor is this all, the cost of producing one hundred pounds of meat from a Jersey is much more than it would be from any other breed. And admitting that almost every farmer's business is to keep dairy, it very frequently happens that

a cow loses a test old age come on, or something trespasses by which he has to supply one-tenth more cows yearly. That is, I think a dairymen with twenty cows must on an average supply two cows yearly to replace those that have failed up through different causes. So you will see after all, that even if he keeps dairy as a complete and separate business, one-tenth of his business is producing meat; as a cow when past her usefulness for milk is fattened for beef. It becomes a very serious question to know where we shall get our supply of oxen, as the make and build of the Jerseys is quite unsuitable for draught. Likewise there are many in the state that make it their business to raise and fat beef, who depend on the dairymen for their yearly supply of young stock. In the future where will they find steers that at four years old will draw twelve hundred pounds? All these and many other thoughts suggested themselves to my mind while looking over the stalls, and could I but arrest the attention of farmers so they will weigh the matter candidly and carefully before it is too late, I shall feel that I had done my duty.

WILLIAM S. THORP,
Morristown, October 21.

Housing Manure.

EDITOR VERMONT FARMER.—An old Scotch farmer, Lord Kinloch, has tried the housing of manure, and has given us the results which I propose to repeat for the benefit of your readers. The theory and fact is that the farmer's only hope for success in tilling the soil rests in producing and saving as much manure as possible. Manure in piles, left to decompose in the open air, must lose much of its value. The gases pass off into the atmosphere and the soluble parts wash out. To the extent that this does result from the exposure, the virtue of the manure is gone. Covering it prevents this waste to a very great extent, to say the least. The facts prove it. Our Scotch friend appropriated four acres of good soil to try the experiment. One-half of this he caused to be manured with dressing from the open barn-yard; the other half, with the same quantity from the covered shed. The whole field was then plowed with potatoes, of the same kind and in the same manner. The harvest showed the following results. From the two acres treated with barn-yard manure, were dug 564 bushels; from the two acres treated with manure from the covered shed, were dug 915 bushels.

But this manure was not all exhausted. Another years crop is also to test the quality of housing. So the good farmer sowed his field with wheat, without further manuring; and the following were the results. From the two acres treated with barn-yard manure were gathered 83 bushels, 58 pounds (of 61 pounds per bushel); from the two acres treated with covered shed manure, 113 bushels, 52 pounds (of 61 pounds per bushel).

And this is not all. The comparison of the straw grown upon the two portions of the field above described, gave a difference of one third in favor of the half manured from the covered shed.

I have no statistics to prove further results in favor of protected manure, but no doubt the grass gathered the third year, showed similar results. Now, if these facts are reliable, (and I have no doubt they are), it becomes a matter of great importance to every farmer large and small, carefully to cover his manure. And yet, how large a proportion of our Vermont farmers actually practice against this waste? I have no doubt that all know the general fact that it is better to have manure under the shed than in the open barn-yard, but how many realize of how much importance it is.

I called the attention of one of my neighbors to the fact that his manure was all exposed and rapidly wasting, the other day, and his reply was, "I know it, but I have never found time to make the necessary change." He might as well have said, I know it is wasteful to allow my neighbor's cows in my wheat field, but I never find time to put up my fence! Yours truly,

AGRICOLA.

Leaves for Bedding and Absorbents.

The value of forest leaves for the manure heap is not sufficiently regarded. When farms are "running down" year after year, we should seek for every source of fertility which the farm can supply. It is folly to pay large sums for commercial fertilizers and freight on the same, taking the risk of their being genuine, while many things of known value are wasted. The extraordinary fertility of newly cleared land, which produces all crops with such prodigious profusion, is derived mainly from decaying leaves and wood. They afford the elements needed by growing crops.

Leaves gathered and housed serve a triple purpose, supplying a comfortable bed for the stock, acting as absorbents, and by their own decay doing one of the best manures.

The correspondent of the Boston Daily Journal, who writes such common sense articles under the title of "every-day thoughts" about every-day work, says in a recent issue: "It will soon be season to collect leaves for manure. Hacking up leaves and loading them by the basketful for bedding seems small business, but I can collect more bedding in that way than in any other in the same time, if I may get them within a mile of home. One man, one or two smart boys and a loaded wagon will get a large lot of them in a day, without working hard, and they make the very best manure for our fields that has been so long under cultivation. It is nature's own way of fertilizing worn-out land, only that nature has to raise a growth of forest to shed its leaves for many years, while we by manual labor and team labor can perform it in a short time. Don't fail to try it this year."

Chemical Fertilization.
Dr Sturtevant was called on at the evening discussion at the New York state fair at Elmira to state the result of experiments in the neighborhood of South Framingham, Mass., a report of which we find in the Rural Home. He said:

Twenty-five acres in all were set aside for this purpose, eight on one farm, nine and a-half on another, and seven and a-half on a third. The experiment was to test "Chemical Farming," of which the late Baron Liebig was the great exponent; that is, to introduce certain elements into such direct contact with the plant as to be absorbed for its immediate nutrition, and not diffused through the soil.

Professor Stockbridge, of the Massachusetts Agricultural College, had demonstrated the wonderful gain by such chemical application, irrespective of drought or rain, during the accidents of frost, hail or floods. The crop in the above experiment was planted on the last day of May. It was three weeks in coming up.

The following was the composition and amount applied per acre, first, with a broadcast sower, twelve barrels, and twenty barrels afterwards, by sprinkling about the hills: Sulphate of ammonia, 404 lbs, muriate of potash, 151 lbs; sulphate of potash, 65 lbs; superphosphate, 199 lbs. The superphosphate was made of bone black, obtained at the Boston sugar refineries, treated with sulphuric acid, 2,000 lbs of the former to 1,000 of the latter, with an equal quantity of water. This made a stronger superphosphate than any which could be used in place of bone black, but it was not so good. The mixture of the ingredients was made in an old half hoghead. The result of the experiment was that in an unfavorable season the yield of corn was from thirty to over 100 bushels to the acre, with a great growth of foliage; while a strip which was not thus manured would not reach ten or twenty bushels per acre. Still he did not place confidence in such experiments on small plots. They should be tested on a large

How Premium Butter is Made at Hillside Farm.

Mrs. A. O. W. Foster having taken first premium for primer butter at the late state fair, it may be of interest to your readers to know how it is manufactured.

The method of making it is known as the deep can system and is as follows: Immediately after milking, the milk is strained into the cans which are then immersed deep enough in the water tank to have the water in the tank stand a little higher than the milk in the cans. The tank is filled with clear cold spring water which is kept continually circulating. After standing twenty-four hours the cream is taken off and put in the cream can which, like the milk can, is kept in the water. The cream is churned every seven days in a common dash churn. As soon as the butter comes it is taken out, washed with clear, cold spring water, and thoroughly worked with a wooden ladle. In working the hands are never permitted to come in contact with the butter, but every operation of working, salting and putting in prints is done with the ladle. The rule for salting is one ounce of Ashcroft fertilizer salt to the pound of butter. After working and salting the butter stands six hours, when it is worked over again to secure a perfect homogeneous mass, after which it is made into prints for exhibition.

S. G. FORTER,
"Hillside Farm," Wilton, Me.

Details of Echo Farm Dairy Called For.

EDITOR VERMONT FARMER.—I think Echo Farm must be a beautiful place, judging from its name and its well fed stock of Alderneys which (according to Agriolta, in Farmer of October 15), "zoom over rich meadows during the summer, and in the winter occupy a palace barn, clean as a kitchen!"

But before we can conclude whether its proprietor ought to have one dollar per pound for his butter, we shall want to know how long that nice milk stands in those "pails" before it is skimmed? How long the cream stands after it is taken off before it is churned, and how much of the butter-milk is worked out of the butter before it is packed?

P. L. HOPKINS,
East Berkshire, Vt.

Peace to Oileomargarine.

The protection to the American dairy interest in the English market to be got by branding the salt butter and cheese, when in fact the brands on all goods are obliterated by exporters, is a thing that "no fellow can find out."

The Utica Herald, under the title which we quote, occupies a paragraph from the Grocer, and remarks:

"Thus the Grocer reaches the conclusion we announced in this issue of our examination of the subject a year ago. It says: 'We are fully prepared to admit that Capt Gardner's company makes a fair, honest and palatable product of which they need not be ashamed, etc.' This is true. Any one can determine this by looking at it, and any one who wishes to look his own eye can ask a harder than they all!! But they only answered us with cries which gained no warrant in the facts as we knew them, and the result is their acknowledgment that no evil exists. As the matter stands today the improvement of skim cheese with oleomargarine is 'fair, honest and palatable,' as the Grocer says."

Fall Feeding Ewes.
You can feed your ewes easily if you begin at once while it is pleasant. Take a common glass jar, or tin, such as are used for canning fruit; fill it with syrup made of white sugar, simply pouring boiling water on the sugar is enough. Tie over the mouth of the jar a piece of thick muslin or drilling, and turn it upside down over the frames of the hive you wish to feed. Have it quite warm. When they have taken it all, give them more. If any is left over night, warm it before letting them take it next day. If the weather is warm, they will carry it in through the night; but if cold, they will cluster together and leave it.

Eight or ten pounds of sugar made into syrup, will be sufficient to give to any colony of bees until spring. Last October I fed eight pounds to a hive that had not more than ten pounds of honey in the hive. It came through until March, and though I fed it liberally then, it was by no means out of honey. The reason why it is better to feed now than later, is that the bees can fly freely every day and this sends necessary food they are storing supplies.

I have known bees fed in November to die of dysentery; this will not be the case, if properly fed in this month. There are some fanciful notions remembering, Last October I fed eight pounds to a hive that had not more than ten pounds of honey in the hive. It came through until March, and though I fed it liberally then, it was by no means out of honey. The reason why it is better to feed now than later, is that the bees can fly freely every day and this sends necessary food they are storing supplies.

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Sheep on the Farm.

Those farmers who experience considerable difficulty in hiring help to care for a dairy and who are so unfortunate as to be unable to carry it on with their family help, and they are many, look to wool growing as a substitute; and would, if it were not for the low prices of wool and sheep abound dairying.

We think there is money in wool growing if well managed. A farmer makes a fair statement of the case in "Farm Talks" in the Mirror and Farmer:

"You can't farm in these parts without sheep. At present prices there isn't any money to be made in raising beef; we are too far from market to sell milk, and butter-making is out of the question where you have to hire help to make it, so about the only stock which will pay taxes is sheep. Of course you can't keep all sheep, for you must have other stock to do your work as the butchers charge you less for their meat than they did a year ago; but even at present prices I can make money on sheep. I wintered just an even hundred grade South-downs—sixty-five ewes, thirty-three wethers and two bucks. I don't know how much wool I have got this year. My guess there are 350 pounds, or \$157.50 worth. I raised fifty-two lambs, and have sold forty of them for \$140, and I can get about \$30 for the old sheep I will sell to make room for the lambs I have kept. This makes an income of \$327.50, or \$3.27 per acre. I have not the pasturing had not cost over \$50, for I can buy good pasture back on the mountain for \$4 an acre, and well fenced at that. The sheep eat a little grain and poorer hay last winter, but not more than the value of the wool they have. I have got a lot of it for almost \$14 per ton, which is all it would have brought had I sold it at the barn. Now there is no other stock that I know of that will return you \$10 a ton for the hay it eats. Then I like sheep because they are out of the way more than any other stock they grow early and stay late, and they are well brought up I had rather feed against them than against cattle. They are less care than cattle, too, in the winter. They eat hay, do not have to be cleaned out every day, need no casting or bedding down, and do not look or fight. I believe they are better for a farm than cattle. They eat bushes and briars, their droppings are ready spread, and the best manure I get comes from the sheep-pen. I calculate to feed half my hay to sheep, and if I fed three-fourths of it I should be better off."

Keeping Apples.
We have tried many ways for the safe keeping of winter apples, but we find none better than to put them into clean barrels and head them up tightly, so as to exclude all the air and light possible, and store them in cool, dark, dry cellars. The nearest approach to this is the freezing point, (32° Fahrenheit), by long and better they will keep. If the mercury in the cellar sinks a few degrees below this point apples will head up in barrels will not suffer, as wood is a non-conductor of heat, and the life of the apple dies in resisting cold just as the life of the man resists the winter. In this country, and in so conducive to health and comfort, it is worth while to put up a few barrels with special reference to next summer's use. For this purpose select the late-keeping varieties, such as New York Spitzen, Roxbury Russet, or even Northern Spy, and after the barrels are filled, shake down among them some plaster (gypsum) till all the interstices are filled. This keeps out the air so effectually that they are virtually canned, and come out the next summer without being spoiled. We have known Roxbury Russet kept perfectly fresh for two years packed in this manner.—Alexander Hyde in N. Y. Times.

BREVITIES.
Two Clydesdale stallions which were exhibited at an Ohio fair weigh 2,400 lbs each. The American Grocer and some agricultural papers were overloading the oleomargarine question.

The protection to the American dairy interest in the English market to be got by branding the salt butter and cheese, when in fact the brands on all goods are obliterated by exporters, is a thing that "no fellow can find out."

The Utica Herald, under the title which we quote, occupies a paragraph from