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Vermont Farmer

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

David Landreth & Son of Philadelphia send us a circular of experiments with winter wheat and rye.

The pure bred Essex swine, advertised in the Farmer, by Col. Mead, are reliable, in both pedigree and individual merit.

A friend writes us: "I have just attended the meeting of the New Hampshire board of agriculture at our place. Had a full meeting. Sound men on the board."

The Sullivan county Poultry Society will hold a breed show of chickens at Bennett's Hall, Newport, the second week in February.

The executive committee held a business meeting the 11th inst. and are making every effort for a fine show, which they are pretty sure to have.

Editor Stewart says in the Live Stock Journal that the misfortune is that farmers do not see the necessity for agricultural education, and it is likely to be some years before they appreciate the advantages offered. It is unfortunately too true. It is the greatest obstacle that agricultural colleges meet.

Hon. Alexis T. Smith, a member of the Vermont board of agriculture, will participate in the joint meeting at Canaan, and give an address "On the General Dairy Interest." His announcement of his purpose to attend did not reach us in time to be printed in the programme.

The Western New York farmers' club at a recent discussion on the subject of, which we find in the American Rural Home, were unanimous in the opinion that dogs are a nuisance; that it is impossible to keep a flock of sheep in Western New York, on account of dogs. Mr. Reed favored the passage of a law requiring owners of dogs to give security for the payment of damages they may do.

The Board of Agriculture has made appointments for meetings at the following places. West Rutland, November 29 and 30; Ludlow, December 1 and 2; Canaan, December 7 and 8; Rochester, December 14 and 15; Chelsea, December 16 and 17; Hinesburg, December 22 and 23; Barre, December 28 and 29; Cabot, December 30 and 31; Iraaburgh, January 11 and 12; Franklin, January 13 and 14; Fayettesville, January 18 and 19; Pomfret, January 20 and 21; Orwell, January 25 and 26; Brandon, January 27 and 28.

In Dr. Sturtevant's experiment last season on raising corn with chemical manures alone, forty pounds of sulphate of ammonia, one hundred fifty pounds of muriate of potash, fifty-five pounds of sulphate of potash and one hundred ninety pounds of superphosphate (made from bone black sugar refineries), costing \$27 per acre, gave eighty bushels of corn per acre, at a cost of twenty-two cents per bushel, on land that would give five bushels per acre before.

It is often said that the wonderful success of Thomas Bates, the great breeder of Short-Horn, founder of the Dutchess family, was largely due to the unrelenting working out of every family animal. It is doubtless correct. No family of animals could endure the system which has been practiced with them for so many generations unless in building the foundation, every element of weakness had been eliminated. The practice at the present day is just the reverse of that of Thomas Bates in this respect.

Hon. Lewis F. Allen, Buffalo, N. Y., editor of the American Short-Horn herd book, announces that the time for receiving cow pedigrees for record in the fifteenth volume is extended to December 1st, 1875. The American herd book is the standard book of reference among breeders of Short-Horn cattle. The pedigree of every animal should be kept recorded therein. Very fine herds of cattle, of the party of which there was no doubt, have been sold as grades at best prices, because of the neglect to record their pedigrees until they could not be traced. An outlay of fifty dollars or less in a term of years, in recording fees, would have been good for many thousand dollars on the day of sale.

President Hoffman of the Elmira farmers' club made an experiment with fertilizers last season, using ammoniated superphosphate, ground bone, barnyard manure and plaster, in strips of five rows each. About a teaspoonful was dropped in the hill covered by half an inch of soil. He reports a slight difference, say ten per cent, in germination and growth in favor of the phosphatic over ground bone. But the plots when no fertilizer was applied, came up better, and made a better growth with brighter color. Near the close of the season the fertilizer strips had a wild look. The stalks were thicker and coarser, and ears not so well set, filled out or ripened.

We copy from the New England Farmer a short and reasonable sentence from Brother Cheever, on the "old saw" of some who

farmers—break lock boards as winter food for stock. Proceeding cattle "half to death" to make them tough is the poorest kind of economy. Few of us realize in full sense the importance of saving food and flesh and vigor by giving stock warm quarters; and many who admit the truth of the principle neglect to put it in practice. Farmers who would like to make their money all day over the loss of twenty dollars in murrain all day over the loss of the right murrain, untroubling the suffering from cold of his cattle, when it is taking the dollars right out of their pockets.

We need to see the cattle of a prominent farmer in Windsor county lying on the ice in a barn-yard exposed to the wind, all night, when he had a comfortable stable, all to save the trouble of cleaning out the stable in the morning.

Mr. Bailey of Bridport, makes in another column an ingenious answer to Mr. Thompson's article on the Jersey cow. Mr. Bailey "supposes" that thirty Jersey cows can be kept on the quantity of feed necessary for twenty-five native cows. We should be inclined to call for "facts" to sustain the premises on which the argument is based before admitting its soundness. It is entirely safe to assume that the cow that makes a large quantity of butter in a season is a heavy feeder, whatever her breed. The cow that gives a large yield of butter is apt to eat to feed the cow and the calf is sure to tell the tale if she is habitually exposed to cold and storm. We have no prejudice in favor of any breed that is touched by a free discussion, and will be glad to have the readers of the Farmer settle the question that breed (if there is any such) is best to keep. When people argue about the relative value of breeds, and give reasons, we think of the reply of Harris Lewis to the question (at the St. Albans meeting of the Vermont Dairy-men's Association) what is the best breed of cows for the dairymen. He replied, with a twinkle of the eye, "I go for the cow that gives the most milk."

Deep and Shallow Setting.

Prof. L. B. Arnold gives an account of the experiment of L. D. Hardin and Bailey Martin at the farm of the latter in Stockton, N. Y., in which the milk of fifteen cows was mixed and equally divided, one half being set two to three inches deep in flat, rectangular pans and cooled by the atmosphere, skinned in forty-eight hours, and gave a pound of butter to 21.53 pounds of milk; being slightly superior when skinned. The other half was set in pairs twenty inches deep, which were placed in a box or cupboard with double walls filled with sawdust, and the air cooled by ice to forty degrees. The pairs were set in a pan four inches deep which received the drippings from the ice above, stood forty-eight hours, skinned sweet, and gave a pound of butter from 21.51 pounds of milk. There was a little flavor of animal odor in the butter from deep setting, the result of rapid cooling, but the aroma derived from the light flavoring oils of the herbage was all saved by the same means.

Prof. Arnold makes the following inferences from these facts: "First, that it is not necessary for the milk to become sour to have all the cream rise. Second, that all the cream can be raised by either deep or shallow setting, if proper conditions are observed. Third, that Hardin's method, though better than cooling with water, has no preference over shallow setting for dairies in the latitude of New York, since it is more expensive and laborious, while the results are equal. In warmer climates it would, very likely, be valuable. The fact that all the butter can be got and the skin-milk kept perfectly sweet and fit for making a cheese or condensing, or for using in any other way, may be of great advantage in particular localities."

The editor of the Live Stock Journal, from which we copy Mr. Arnold's statement of his inferences, makes the following comments: "The important question is not whether, under possible circumstances, deep setting will yield as much butter as shallow setting, but whether deep setting, if equal in yield and producing a superior quality, is adapted to the circumstances of dairymen generally, so that they may adopt it and comply with all its requirements. If we grant all that is claimed for it, it is not practicable for dairymen generally."

Plant for a Name.

A correspondent at St. Johnsbury sends us specimens of a little clover plant about six inches high, which sprang from seed swept from a freight car at that place, twenty years ago, and asks what it is, and if it is of any value. We submitted it to Hon. C. V. Pringle of Charlotte, the botanist, who very kindly sends the following:

Mr. Editor.—The little clover which you have sent me is *Trifolium arvense*, L., and is sometimes called from its silky head, which suggests the soft foot of a rabbit, rabbit clover, and again, from its choice of dry, gravelly, or stony fields, stone clover. It is not a native of America, but came along with our ancestors from the old world. It is the most insignificant and the least useful of all our clovers. If it offers little food to animals, it claims but little from the soil, but settles upon poor, thin land, from which few plants can draw strength enough to crowd upon it. It is spread abundantly over the sandy tract which extends from the vicinity of Burlington northward to Georgia, where in the dryer and night work lands it occupies the soil, when that is not trying to yield a scanty crop of rye or buckwheat. It is a very rare tall-tower on an extensive system of cropping of such lands; but it readily yields its place to stronger growths, when these are encouraged by fertilization and good tillage. Now that it has found out the warm sands of St. Johnsbury, it will remain there quite at home.

C. O. FAIRBANKS.

Programme of Joint Meeting

of the Vermont Board of Agriculture, Manufacture and Mining and the New Hampshire Board of Agriculture, at Canaan, Vt., Tuesday and Wednesday, December 7 and 8, 1875.

Tuesday Afternoon.

1. Training Animals.—C. Horace Hubbard, member Vermont board.

2. Nest Stock.—Descon Buffum, member New Hampshire board.

3. Cattle Raising.—C. P. Judd, Canaan, Vt., member Vermont board.

4. Work and Wages.—Silas Hopkins, East Berkshire.

5. Relation of Science to Agriculture.—Prof. Henry M. Seely, secretary Vermont board.

6. Review of New Hampshire Farming.—J. O. Adams, secretary New Hampshire board.

Wednesday Morning.

7. Butter Making.—O. S. Fassett.

8. Grasses.—J. W. Sanborn, member New Hampshire board.

9. Tilling the Soil.—G. W. Hartshorn, Canaan.

Wednesday Afternoon.

10. Sheep Husbandry.—Dr. Kingsbury, member New Hampshire board.

11. Potato Culture.—C. G. Pringle, member Vermont board.

12. Opportunities for Young Farmers.—Col. Mead, member Vermont board.

Discussions are expected to follow each paper, and it is hoped that every one will feel free to take part in them. Similar meetings of the Vermont board will be held, at which different programmes will be presented, at the following places:

Rochester, Tuesday and Wednesday, December 14 and 15.

Chelsea, Thursday and Friday, December 16 and 17.

Hinesburg, Wednesday and Thursday, December 22 and 23.

Barre, Tuesday and Wednesday, December 28 and 29.

Cabot, Thursday and Friday, December 30 and 31.

Iraaburgh, Tuesday and Wednesday, January 11 and 12.

Franklin, Thursday and Friday, January 13 and 14.

Fayettesville, Tuesday and Wednesday, January 18 and 19.

Pomfret, Thursday and Friday, January 20 and 21.

Orwell, Tuesday and Wednesday, January 25 and 26.

Brandon, Wednesday and Thursday, January 27 and 28.

HENRY M. SEELY, Sec'y.

New York State Dairymen's Association and Board of Trade.

The fifth annual convention of this association will be held at Norwich, N. Y., on the 8th and 9th of December, A. D. 1875. The following is the programme:

The convention will be called to order for preliminary business, at 11 a. m., Wednesday, December 8th. Opening address by the president, X. A. Willard, at 2 p. m.

The following gentlemen will read papers, or speak, on the topics specified:

Prof. J. P. Roberts, agricultural department Cornell University. Subject—"Breed and Feed."

D. W. Lewis, of New York. Subject—"Commerce."

E. W. Stewart, of Live Stock Journal, Buffalo, and lecturer at Cornell University. Subject—"The Cow and her Management."

Prof. L. B. Arnold, secretary American Dairymen's Association. Subject—"Milk."

J. S. Van Dusen, of The Husbandman, Elmira, N. Y. Subject—"What Further Improvement in Dairying?"

Dr. E. G. Crafts, of Binghanton, N. Y. Subject—"Practical Observations on Soiling Milk Cows."

Wm. Blandin, Hawleyton, N. Y. Subject—"How can we Advance the Standard of Dairy Products?"

Hon. Harris Lewis, of Frankfort, N. Y. Subject—"Breed and Butter."

Asahel Turner, of Elmira Advertiser. Subject—"The Honorable Side of Butter and Cheese."

L. S. Hardin, of Louisville, Ky., has been invited to give an address on his improved system in butter making.

After each address time will be allowed for discussion of the subject. Besides the topics alluded to, members of the convention may present any proper subjects for discussion.

Meeting of the New Hampshire Board of Agriculture.

The New Hampshire Board of Agriculture will hold a meeting at North Stratford, December 8th and 9th, (Wednesday evening and Thursday). The following is the programme:

Wednesday Evening.

1. The Interests of Cois County.—H. F. Holton, member of the board.

2. Feeding Nest Stock.—B. F. Hutchinson, member of the board.

3. Waste on the Farm.—C. Horace Hubbard, member of the Vermont board.

Thursday Morning.

4. Cattle Raising.—J. M. Wear.

5. Potato Culture.—C. G. Pringle, member of the Vermont board.

Thursday Afternoon.

6. Manure.—J. W. Sanborn, member of the board.

7. Selection and Care of Cows for the Dairy.—C. G. Fassett, member of the Vermont board.

Thursday Evening.

8. Farm Buildings.—Col. J. B. Mead, member of Vermont board.

9. Agricultural Knowledge.—Dr. Kingsbury, member of the board.

10. Leaves.—Prof. Seely, secretary of Vermont board.

Hon. Jacob Boston of Lancaster has raised the past season 346 bushels of prime oats from four acres of land.

O. G. FAIRBANKS.

For the Vermont Farmer.

The Jersey Cow.

EDITOR VERMONT FARMER.—In your issue of November 5 I read an article from William S. Thorp, on the Jersey breed of cattle. That is right, brother Thorp. I like to have a man speak out what he believes, if we do differ in our opinions. Perhaps the truth lies midway between us, and by comparing notes we may arrive at the truth, as it is truth we are after. In the old notice to correspondents for the FARMER they were requested to write what they knew, preferring the lines of what we knew to our column guesses at what was all very well, but we are liable to be deceived sometimes and think we know a thing for certain, when the fact is, we have been looking from only our own standpoint, instead of from all points; hence, I have something to say in reply to the article spoken of, from my standpoint about Jersey stock. I became convinced several years ago that the coming cow for Vermont must be a Jersey or grade Jersey. I consider our natives a breed, and not a mean breed either, if bred with the same judgment that our blooded stock men use in their breeding. Now, I am not opposed to blooded stock of any kind, far from it; the only objection I have to them, is they cost so much I cannot buy them. A few years ago, however, I bought a pair of Jerseys, being convinced it was the breed I wanted, for they had been bred a long time to develop their butter producing qualities, and for butter I keep cows, to convert my fodder from the raw, unmarketable material into a ready-sell, cash article. Therefore the cow that will convert the most fodder into butter must be the cow to keep, I think.

What farmer would employ a threshing machine to do his threshing that would have but one-half of the grain from the straw, if the machine was a model of beauty and perfection. None but a fool would employ such a machine, all would say. But I claim that there is much of that same principle held today in regard to cows, and friend Thorp, I opine, has a little of the same, if he is not a cattle dealer, or drover, as I find that class cannot tell the Jerseys by as hard names as they would like to, although by many persons a drover is never supposed to be wanting in epithets.

In regard to Jersey cattle being tender, I have seen nothing yet to indicate it, but the idea because they are small they will reduce the supply of meat, etc., laying the reduction at one-half, and that of cost of producing one hundred pounds of beef is much more than from any other breed, is a point I wish to notice.

In reply to the first objection, I claim that we can keep, and keep well, more pounds of Jersey stock on the same food than we can of almost any other breed producing the same amount of butter or beef, for the very fact of their being bred to eliminate the greatest possible amount of nourishment from the food consumed, fits them for best-producing when not giving milk. The first of last March, from thirty head of yearlings coming two years old in this spring, I drew six steers that were in the best condition, they all having been kept at stacks, and sheltered on the leeward side of the same. Three of those steers were half-blood Jerseys, being all there were. I then put them in the stable and "rubbed a little meal on their noses," and sold them before-hand for forty dollars per head. The half-bloods were from small, native cows crossed with a full-blood Jersey bull. Another half-blood I let go when a calf, for breeding purposes. It was killed last July, being three years old the April preceding; the meat and hide of which, without the tallow, weighed between nine and ten cwt. Not a bad showing for beef production. Last fall I killed a full-blood heifer three years old that was barren, and she was the fattest heifer I ever saw killed, in fact the meat was so fat it was hardly eatable after being cooked. The lack in size was more than made up in numbers kept. I do not anticipate a beef famine right away.

One other point I wish to notice briefly, and that is, carrying to ten years or more a very poor milking, but big handsome cow for the sake of having a big piece of old-bow beef to sell, which always goes a begging in any market, when we wish to turn her off. I am aware that that idea is very prevalent. I have in mind just such a dairy; some of the cows well fattened will dress eight or nine cwt, and all the butter they make over one hundred pounds per season is to brag about.

Now let us figure a little, as figures "wont lie." We will suppose a man keeps twenty-five cows like those last described, he will have in the fall twenty-five cwt of butter which at thirty cents per pound, (I will give low figures on butter) would amount to \$750; twenty-five calves, at high figures, \$10 per head added to butter would make just \$1,000. Another man keeping lesser cows in size, selected for their butter qualities, keeps thirty cows on same feed, making 150 pounds butter per cow, amounts to \$1,350, to which add the value of thirty calves at five dollars per head, when, in fact they are nearly as good as the other lot, not a dollar's difference, added to the butter, makes a total of \$1,500 from the same keeping, a difference of \$500 per year for ten years, calling that the average time of milking a cow, amounts to \$5,000, divided by twenty-five the number of cows the first man keeps, equals \$200 what it has cost extra for keeping the big stock cow for the sake of having a big piece of old cow beef. Some dairymen do not dry off their old cows and fat them, thinking it more profitable to milk them till winter and sell them for what they will bring as calves.

There were some other points I intended to notice but I have had the floor long enough.

T. BAILEY.

Bridport, November 9, 1875.

Feeding vs. Plowing Under Clover.

If professors of chemistry would tell us whether a crop of clover plowed under would be of more value in that way than if sheep were folded over the land and daily fed with it in racks, it would be of more service than making statements every practical stock farmer knows to be erroneous (such as, for instance, potatoes not being good for animals, unless in such small proportions as to be of little use), by giving good and correct reasons for the raw herbage giving more fertility to the soil than it would after passing through the sheep, and being added to the earth as dung and urine.

In England sheep are kept in that way to be called very large flocks, and on the farms occupied by the best tenant farmers they are used to eating green crops, by being huddled over the ground day by day, as much for the benefit of the mowing crops as for the profit derived from the flesh and wool gained. Thus hundreds of sheep lie in pens in the fields all winter without shelter, having fresh bits of water given them every day, and in summer the same plan is carried on by first getting the sheep, and then over or rape until the grass is cut again. Many good farmers keep hundreds of sheep without adding any food to the produce of the farm; but there are more who, finding how the land is enriched and the crops increased by giving clover, use great quantities, and find the result to be "farmers looking ahead," and the only objection I have to them, is they cost so much I cannot buy them. A few years ago, however, I bought a pair of Jerseys, being convinced it was the breed I wanted, for they had been bred a long time to develop their butter producing qualities, and for butter I keep cows, to convert my fodder from the raw, unmarketable material into a ready-sell, cash article. Therefore the cow that will convert the most fodder into butter must be the cow to keep, I think.

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T. BAILEY.

Bridport, November 9, 1875.

Value of Blood.

Mr. Z. A. Gilbert, President of the Maine State Board of Agriculture, said at one of the farmers' meetings at the New England fair at Manchester:

I believe that blood is important. I believe that thoroughbred animals are the animals to breed from. I believe it is our only source, and I believe that we to that should look for the improvement, not only of our horses, but for the improvement of all our domestic animals. I believe that it will, in every case, manifest its superiority over any other animal used, in the whole round of domestic animals. The question of crossing is a question which does not come up really in antagonism to the improvement of pure bred animals—not at all. We find that by a cross of a thoroughbred animal upon our stock, whether a mare, a cow, or any other domestic animal, we get a good animal, valuable on our farms, valuable for useful purposes. We want these thoroughbred animals to cross upon our common stock, and increase its value. Without the thoroughbred, we should not have the most valuable animals to cross upon. If the farmers of New England would improve their stock, of all descriptions, they must resort to the thoroughbreds to do it.

Descon Buffum of the New Hampshire Board of Agriculture said at the same meeting:

I merely want to second what has been said in favor of thoroughbreds. And I would lay a little emphasis on the thoroughbred. We call many animals "thoroughbred" thoroughbred horses, and thoroughbred cattle, which are not so at all. The thoroughbred which will benefit our horses and also our cattle, is an animal bred from generation to generation, possessing the same qualities, fixed in its blood, and continued thus to be bred. For instance, you have a fast horse, and its grandfather and grandmother, its great-grandfather and great-grandmother, back for eight or ten generations, have all of them been fast; you let that colt stand upon his own merits, and you find that the opposite of fast, and its colts will be worth nothing. When we say that the colts of our fast horses have very few of them been fast, the trouble is this, that the animal were not thoroughly bred. If you trace back their ancestry you will find that some of them have been the opposite of fast and consequently they do not come up to the standard. This is the reason why our horses are not improved. We have some very fine animals, but if you trace their ancestors back, you find them inferior animals, and by breeding from them, you breed back.

What I want to impress upon you is this fact, that if we wish for a fast horse, we must get a stud-horse whose parents and grandparents were fast, and whose grandfathers were fast, and every colt he gets will be faster than the dam that brought him. So with our thoroughbreds, which are celebrated for their milking qualities. The qualities have been bred back from generation to generation, and a bull of that family going to our native cows will produce calves that are better milkers than their dams, and we increase only in that direction. If you wish to improve your stock of horses in any direction, be sure to find an animal whose pedigree is bred for the purposes for which you breed, and you will accomplish your object.

Preparing Bees for Winter.

The London Agricultural Gazette has the following:

We advise apiarists to begin immediately and feed their starving stocks. Bumble feeding is best; but a couple of sardines with perforated wooden flats, placed on each side of the central hole, and covered over by an inverted glass, will do very well for giving supplies to flat-topped hives. Let the food required be given as soon and as quietly as possible. A hungry hive will store up three or four pounds of liquid food in a day, and all that is needed may be administered in less than a week. We know of a rapid repopulation of a large quantity of food administered at one time, is deemed most unwise by some bee keepers on the ground that the bees put the food into the brood cells, and thereby prevent oviposition. If you are in doubt as to the wisdom of this important young bees as positively essential to the existence of a colony during winter."

But this, if it be so, is one more counter-balance by the benefit arising from having the food stored, its watery particles evaporated, and the whole sealed over before the advent of cold weather.

When feeding is protracted until the temperature falls, many cells that should be closed are left open, and the warm atmosphere gives in promoting evaporation is lost, and the bees are left with a moist, moisture, which is very harmful. Besides, late feeding is not desirable, for in hives that have had a successful summer and are left undisturbed, we find that it is the exception and not the rule. Bees naturally go into a state of repose at the end of the honey harvest, and hence by completing the work of feeding as early as possible, we allow them to get sooner into that inactive condition, which is not only beneficial to them, but preparatory and essential to enable them to meet with impunity the hardships of winter. A bee at rest, and scarcely consuming any food, will live three times as long as one that is always moving and frequently on the wing.

Age, therefore, does not greatly affect colonies that spend their time hanging in motion less clusters, and their powers are but little impaired. If they go to rest before the close of September, and continue quiescent afterwards, they can do very well without any addition to their numbers from brood till the following spring. In proof of that we may refer to two adjacent hives that were last year crammed with honey, and, for want of room, gave up breeding early in September.

From one of these, in order to make its queen resume oviposition, and get young bees, that are deemed "so essential" was taken the "alinger," extracted as the honey from two of the central combs. As expected, the emptied cells were soon filled with eggs, and numbers of young brood were hatched out before winter.

But with a view to obtain and compare results, we allowed the loaded nurseries of the other hive to remain as we found them, and its bees to relapse into their former dormancy. Both have passed through winter satisfactorily; the one, however, which had only old bees to begin the campaign, quite outstripped the other, which had a population of both old and young, and was ready to swarm a fortnight sooner. While, therefore, it may be true that autumn or late-bred bees are essential to the welfare of stocks which have their activity prolonged by dribbles or intervals feeding, it is no less true that stocks which

are quickly fed up and then left to enjoy that autumnal repose which they carefully seek, have no need of them.

In spring small doses of food given over an extended period of time, stimulate oviposition, and hasten