

## Vermont Farmer

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### For the Vermont Farmer.

#### Recollections of Farm Life.

Chapter III. A Field.  
Behold the busy fields in haying and harvesting time! The day-long music of the mowers; the metallic ring of the upright scythe under the laborer's whetstone; the shouts of teamsters, guiding the patient team from bundle to bundle of the sweet hay or grain—all this, commingling with those bursts of delight, always attendant upon the presence of the sporting children, whom the father's mother has entrusted to their father's care during the long intermission-meals, is a joyous, busy scene, too lively for any delineation with the pencil, too varied and colored for words.

It is morning of a hurried day in summer. Long before the time of breakfast the anxious farmer and his ready men are working in the outhouse, grinding scythes and mowers, repairing tools, &c. Now they troop into the kitchen and "make turns" at the wash-basin, while the sun grows hotter, and the impatient farmer bespeaks breakfast. At last it is ready; and—having made up my mind to attend the scene of operations that day—I, too, am in my place at the table, which was such an unusual occurrence, that all stand open-mouthed (not upon account of my surprising presence, but to admit the first relay of breakfast). Hardly keeping pace with the hurried carter, I find myself in danger of being left behind, if I do not at once break off, which operation I tenderly performed, and followed the throng in due time for transportation to the field. Into the dusty hay wagons are thrown pitchforks, rakes, and scythes; then the dinner, nicely packed in baskets, is placed carefully under a rubber blanket, for fear that dust or mud may infect the pure pie-crust or the lamb and under the smooth innocuous of the butter, whilom the infectious fumes of picknickers and laborers, and obnoxious harborer of extraneous particles of misery. Now the men leap to the racks, seize the reins, and are off. The farmer with the morning machine follows on his way. It is a long ride, and rough, for the horses are fresh and the wagon springless.

Arrived at the meadow, the teams are unhitched and tethered to the broken side of an old barn, while the men grasp their scythes and aid, on a smaller scale, the farmer in his clattering machine. This stage of affairs is dull and tiresome to me, for I can neither swing a scythe nor direct a mowing. So I wander about with the dog, seeking woodchuck-holes, until the time of dinner approaches. O then what delight, to see the newly arrived coffee and warm potatoes, direct from the house in a light wagon. Lifted out and arranged upon the tablecloth! Doughnuts, bread, cookies, pickles, butter, cold meat, &c., &c., are drawn forth from the large wagon, where they have lain in reserved deliciousness since morning (give me credit for forbearance), and deposited in picturesque confusion among pots and pans and scurrying spiders.

Under a cool, shady tree in the open air, combined with the novelty and "make believe-camping-out" sensation of the thing, what a parallel flood of joy accompanies the lunch. It is when the operations are field-ripen to a close, that the boy's part and pleasure in them comes. When corpulent he lies lost to the eye in interlarding rows of complexity, and when the mighty growing load drags to and fro among the interminable double-lines, stretching across each other, like shadows in a wood, then are the heart and muscle of the boy called into willing play, the play of exertion. What a day-long race he, half-dressed, has with the monstrous "jag" of verdure, uplifted across the sun, and scattering its fresh perfume far and near! So when he sweeps in methodical circles over the waste left by the slovenly pitchfork, dragging the heavy rake behind him, panting and sweating, with a face as red as the glare of an open furnace! And then what an additional crimson of delight and pride rouses rosy over his hot brow, if, perchance, a sly compliment from a browny stranger reaches his ears! "That's a tough one," or "He'll do," is as precious and refreshing as a cool bath of rose-water to the sturdy little plodder. A capital of success to him!

Now follows the golden, comparatively easy harvest, the rich crown of the year's work:

Sweet time of song, gay Autumn comes, Laughing along the rippling grain—  
Reap, mow, rake, and catch her here—  
The trees are laden with their store,  
To their respective fustian dressed.

Under the soft, misty sunlight, with the hills dim in too much of glory, and Nature fast asleep over all and through all; the laborer silently working amid the peaceful scene; a light, cooling breeze caressing soul and vale,—such is our New England harvest time.

When the shadowy breeze run Rippling round the back and forth,  
Over the field-light of the sun,  
And the heavy heads are bent  
To add to before their haste,  
Like a group of frightened sheep,  
To their respective fustian dressed.

Measurably evening descends upon the busy land; then the laborer deserts the fields, and

### For the Vermont Farmer.

#### Hullless Oats.

This variety of oats is new in this section, and therefore its character is not as well known as it should be to gain the confidence of agriculturists. What I know about these oats I will here give to your readers, so that if any wish to engage in their culture, they may do so, not wholly uninformed in regard to their merits, as your correspondent was when he commenced their cultivation last season.

Quite late in the spring of 1874, I was urged by one of the operators in these oats to purchase a bag of them for seed, he giving a glowing account of their productiveness, and their value for food purposes to those who have a decided love for oat-meal puddings; and that the great demand for them as seed would make them more remunerative than any grain I could raise. But when the modest sum of \$1.00 per bushel, or \$20 per bushel, was asked, I naturally hesitated, especially when I reverted to the fact that the same parties plunged deeply into the Norway or black oat lumbering a few years ago, which swindled so many of my brother farmers of their hard-earned money. Not intending to be a party to any such scheme, or have my pockets filled by unscrupulous speculators, I declined purchasing at that time. But desiring to know more concerning them, I wrote to a brother in one of the Western states, where they are raised to some extent, for information, and at the same time to have him forward me a bag, provided they were not a humbug.

In due course of time I received a line from him, stating that he had seen the man who raised the Bohemian oats, and had purchased a bag of them, which he had forwarded to me. The oats arrived in season for sowing. I sowed exactly two bushels of seed on two acres of fair upland, the soil being a light, gravelly loam, they yielding six or eight bushels, as they were measured from the thrashing machine. This I consider a good yield, when we take into account the fact that there is no hull, which in the common oat constitutes at least three-fourths of its bulk.

I have not ground any of them into meal, but have no doubt they will prove excellent for that purpose, as Mrs. C. has cooked them whole like rice, and they made a very palatable food. The whole cost of my experimental seed was in the vicinity of six dollars, but not over, per bushel. The value of the straw for fodder is much above other kinds of oats; it being finer and softer, and cattle go for it quite as eagerly as they do for hay. I have frequently thrown my cows some of it after a good feed of hay, and they would lick it up clean. Others, with whom I have conversed concerning it, have coincided with me in reference to the straw as fodder.

They stood up so remarkably well that I was enabled to cradle the most of them. This I consider a good item in their favor. There was also the least waste in their harvesting of any oat with which I have become acquainted, which certainly is another item in their favor.

Of their value as food for horses or cattle I cannot say, but have perfect confidence in them from the observations made in my brief experience in their cultivation. R. CURTIS.  
Moretown, Vt., March 1.

### For the Vermont Farmer.

#### Sovereigns of Industry.

Having been a constant reader of the Farmer for some time, I have been much interested in your correspondence, though I do not get quite enough of my kind, so I propose to pitch in for my own side a little.

One of my professions is a Sovereign of Industry. This trade I commenced about six months ago and am growing stronger every day, as are many friends around here. We have a good council and every week are growing larger. We are a class of laboring men here. Our pay is not large but we do it because we love it. What must we do? Be chained down in bondage all the days of our lives, or try and release ourselves? I propose to unshackle these middlemen and runners and let them go to work. I have helped pay that class long enough. Why, brother laborer, see what we have to meet. Hardly a thing we eat, drink or wear but has at least 25 or 30 cent added to it to support this class of men—drummers,—while they lounge their way through the world with their samples, from the smallest pin to the largest piece of machinery, from the lightest feather or ribbon to the coarsest overalls. Not only these things, but thousands of articles of mere sham and cheat to swindle every laboring man with.

Now laboring men in every town should take hold of this matter. Get together and study what we can do to save the most out of our pay and get what we have to buy the cheapest way. Some say we are doing this to injure trade. I say no; we are only protecting our families' interests and our homes, and none other.

What are they doing? Is not every runner and middleman at work for the same end? They have their large salaries, live high at hotels, and smoke the best cigars. It would be a miracle if there were not from one to five of them in every town every day. Look at that healthy, robust man, with a traveling bag that may weigh ten pounds. He opens it and displays a thumbful of spices of different kinds and wants your order for a lot. What does this amount to? To just this: Every consumer who buys a quarter of spices has to pay his proportion of this man's \$2000 salary, and so it goes with everything that is consumed.

good from our council, and with good luck so far. We expect to do better when we get more used to it. Let us hear from other counsels. HAND WORKERS.  
Whitefield, N. H., March 4.

### For the Vermont Farmer.

#### One Farmer's Statement.

Dear Farmer—We are very glad to see you from week to week, as you bring us good news from our brother farmers from different parts of the country, who they have prepared the past year. I wish we might hear from more of them, for I think it stimulates us to do better than we have been doing and to keep an account of what we turn off from our farms. So I will add my mite with the rest, though I have not kept pace with some who have written before me. I had a dairy of 12 cows the past year, one of them a two-year-old heifer, most of them grade Jersey, the rest natives, from which I made 2325 pounds of butter (besides supplying a family of six with milk and cream) which I have sold at an average of 35-2-3 cents per pound, which is an average of \$99.10 per cow. I raised three calves and fattened two, which with pork would make an average of \$75 per cow.

I planted one acre to corn, from which I harvested 180 bushels of ears, and one and a half acres of oats, from which I threshed 100 bushels. One and one-fourth acres to potatoes; harvested 300 bushels.  
Johnson, Feb. 25. H. H. COLLINS.

### Notes and Queries.

Being desirous of starting an orchard I am resolved to use native stocks and of my own raising, by planting apple seeds. I should like to be enlightened on the subject through the columns of the Farmer. Does it make any difference from what apple the seed is taken? What is the time to plant, and in what manner? If planted next fall should the seed be taken from apples grown last year, or can they be taken from those grown next season? YOUNG FARMER.

Will Mr. Farrar, and others who have the necessary knowledge and experience, reply to "Young Farmer's" queries?  
The Most Profitable Crop.

At a special meeting of Orleans Grange, March 3, for the discussion of the question "What is the most profitable crop for farmers in Vermont to raise?"  
M. H. Mason said: I will admit that the most profitable crop to raise, but I think that we should raise all kinds adapted to our lands. Think that we can raise wheat and corn, and that those crops fit the land for grass better than any other. Think either more profitable to raise than barley. Land good enough for a good crop of wheat, will grow a good crop of corn, and will be better for grass to follow than barley. If we raise grass alone we have to depend upon the avails of that to buy other crops for consumption. Think that farmers had better raise their living than to buy it. To much money is sent out of the state for flour, corn, feed, &c. Had better raise all and save our money. Think the farmers of Vermont are growing poorer by buying so much from the west.

F. A. Clark thinks grass the most profitable crop to raise, but that wheat better than barley and barley better than corn. Think it no damage to raise grass and buy some feed.

H. S. Bickford thinks the grass the most profitable but it is best as a general thing to raise what we can consume. Think barley and corn profitable crops. I get double the profit from best that I do from any other crop, according to cost.

A. B. Rich thinks grass the most profitable, but all grass will run out. Must raise other crops to renew the grass. Grass not profitable to raise when we can buy cheap. Barley better than wheat. Grass and roots the most profitable.

H. W. Phillips: Think grass the best crop, but think they should see what kind they could raise best and exchange with other farms. Think they should raise potatoes that to wait for some one else to raise them for them. When I lived at home on the farm we used to raise what we wanted to live on. Think we ought to raise in Vermont what we want to consume.

Jerry Harnsford says: Best to see what our farms are best adapted to, and raise such, and buy such as we cannot raise. Can raise wheat, but not corn on our farm.

R. M. Walker: Barley is better for me to raise than wheat. Can raise good grass for hay or feed. More profitable to raise barley than wheat.

Amos Cooke: Hops are a good paying crop, and potatoes a better paying crop than grass. But to raise these, in a few years we could raise nothing. We should not try to do this. We should raise what we can consume on our high, cold lands. It would be better to raise a good crop of potatoes than to wait for some one else to raise them for them.

H. S. Chaplin: If we can produce two dollars' worth of butter to sell as cheap as we can one dollar's worth of flour, it is the most profitable to raise the butter and buy the flour. It is a mystery to me how we can best ourselves by raising for our own consumption instead of buying, when by raising another crop to sell we can buy what we should otherwise raise and save a good margin of money in the operation. He also read the following paper:

"Which is the most profitable crop for Vermont farmers to raise?" many things must be taken into consideration. First it would be necessary to know the character of the farm, whether cold and wet with a northern cast, or warm and dry with a southern cast. Whether in a cold locality subject to late and early frosts, or in a more moderate locality, admitting of a longer season without frosts.

Perhaps this would more particularly apply to the corn crop than to any other, which could not be raised to great profit without a suitable climate and suitable soil for that purpose, and length of season to mature it. But another consideration is, what you are going to do with the crops when raised, which equally applies to all other crops. And then again the value of said crop for winter and summer use, and the value of the said crop when matured. If we put in a corn crop with the expect-

ation of a good corn season and a good price, and it proves to be a poor season and a low price, we might be greatly in arrears of our estimate when commencing the crop. Then if we had to make park of it at eight cents per bushel, I doubt whether it would be a profitable crop, whereas with a good season, a suitable land, and a good price for the most profitable crop for that piece of land.

If we were confined to the raising of one crop, no doubt the hay crop would be the most profitable and the most indispensable. And I think the hay crop rightly cultivated and rightly disposed of is the most profitable, and partly for this reason, that we get the greatest value for it to return to the land, which is one very essential consideration. Also if fed to the right kind of stock we realize the greatest profit from it of any crop that we raise. But to get the greatest profit we want to feed it to cows that will yield 300 pounds of butter per year. Thus it will pay to raise a hay crop, and also to take some pains to raise a good cow. Perhaps it is profitable to feed to cows of one-half that capacity as it is to feed any other stock, but if we feed to raise young stock, we must estimate the value of that portion returned to the land pretty high—at the rate "middlemen" want to buy young stock—in order to make it a profitable crop to raise.

If we have a piece of ground that is run out for hay, and we have no means of recouping it with manure, probably a crop of oats or potatoes would be the most profitable for one year. Such land turned over and sown to every-thing green for a few weeks for one year, will probably give us a better yield of hay or milk, and would probably yield as much profit in potatoes according to the cost.

What would not be so profitable a crop as wheat or corn, but it is not so profitable as potatoes. One acre of ground to a suit-able condition to raise a good crop of a winter or corn would yield hay enough to feed enough of the best cows to make 400 or 500 pounds of butter in the year, which would be worth from \$25 to \$35, and with a few less expenses than the wheat, corn, or potatoes, thus disposed of, would pay to raise. Therefore I think the hay crop can be made if it is not, the most profitable crop for farmers in Vermont to raise.

I have a good opinion of root crops, but the larger the better, and that to rot on the outside and works toward the heart. So the larger the post the longer it will last in dry ground. Also, have the posts seasoned before setting. But if you want to set them in wet land, smaller ones will answer. We had better get the posts of our own land, also get a supply of five and six-inch spais, and a few pounds of eight-penny nails.

Thus, with our boards, posts and nails on hand, we are ready for building fence in the spring.

Now let us imagine that it is spring, and try our hand at building a few rods of fence. Are our tools ready? We want a good, stout shovel, iron bar, a sharp ax, a tamping stick five feet long and two inches through, a line four or five rods long, a good hammer, a bit-stock with a bit, and a cross-cut saw. Let us clear away where we propose to build and put down our line, within six inches of the ground. Then let us scatter our boards and posts. If the bark has not been removed from the posts, now is our last chance, and that is to be done. Sort over our boards, so as to have them of an even length. Lay them along the line, four together. Then the posts, a little back, one for each joint and one in the middle. Have the posts all of one length. It is a very good idea that anything will do for a middle post.

Now we are ready to build. Bring the shortest board up to the line, and so on with each board, giving them a lap of six inches. Then, with the bar, mark the post holes, and with the shovel, dig the post holes to the length of the shovel, handle and all. Set the posts into the holes with as little surface as possible next to the boards. Now I take my tamping stick in my right hand, and with my left hold the post in position. What my man puts in the dirt, I repeat, but fine dirt. Never put in any thing but fine dirt. After putting in about one-third of the dirt, I step back a little each way and see that the post is perfectly plumb. Then put in the rest of the dirt, and so on with the whole line. Having done the posts, do not trim them smooth with a hatchet, then measure and mark my posts, three feet eight inches from the ground, so that they are high enough for an ordinary fence. Next, tack on the top board, all along the line, with eight-penny nails, and so continue down each corner, putting them five inches apart. Now we have our boards all nailed on. But if we step back a rod or two from the line, we shall see some lengths that want to be raised or lowered a trifle, to make them look just right, for we must conform somewhat to the surface of the ground. Then come the cleats. Saw them up the right length, and here then so as to have the spike come a little below the center of the board. Put them on with six-inch spikes at the end posts, and five-inch in the middle posts. Now let me take the cross-cut saw and saw off the tops of the posts over the top of the fence, and we have our job completed.

In wet ground I use smaller posts; sharp-ened and driven them. But never put a post small and round, to make one-half the secret of a good fence is to make it top light and bottom heavy.

Raising Root Crops—Varieties.  
That root culture will do for this country what it has for England, increasing the amount and value of farm stock kept, and that will ever be raised and fed to the same extent that they are there, is very doubtful. This much can be said of root culture in this country—many of the farmers, and I think I may say as a class the best farmers, the breeders of the best stock, have raised roots for feeding purposes and consider them essential to produce the best results in raising blooded stock and increasing the products of the dairy. According to my observation but few persons have abandoned this practice. I think the raising and feeding of roots in this country is on the increase. Every farmer who has had roots in his stock knows without any analysis to indicate to him their nutritive value that this succulent food had a practical value in the aid it gave to the digestion of their dry winter's food that it increased their appetite, improved their condition and lessened their liability to sickness and disease. I have raised roots for several years and think I cannot winter stock to my satisfaction without them.

Many farmers, including myself, have been in doubt as to the best and most profitable root to raise. I raised for two years Lane's Improved Imperial Sugar beet, well placed with them as to yield and feeding qualities. Seeing favorable notice of the Norbiten Giant Mangel Wurzel, I tried that last year by the side of the Yellow Globe and Lane's best—one-fourth a roe each treated alike in all respects, with the following results:

Yellow Globe Mangel, 300 bushels.  
Norbiten Giant Mangel, 300 bushels.  
Lane's Improved Imperial Sugar beet, 300 bushels.

They were placed in the same cellar; a cellar that I have always called good for keeping roots without their wilting and shrinking. Now, at the middle of February, the Norbiten Giant is badly wilted; it is soft and corky, its stock does not relish them. The Yellow Globe is somewhat so, but not so bad. The Lane's beet is brittle, fresh and nice; for the two years previous they remained so until the last of June, as late as I care to feed roots. When a root wiles, perhaps it loses nothing but the water it contains, but I know my stock does not like them so well, and my observation tells me that they do not thrive so well on them. I imagine stock uses the same difference that we do in eating a shriveled, wilted, dry apple, in comparison with a juicy, brittle one. A fresh, brittle, Northern Spire does me more good than a dry, wilted, Roman apple. I think we should raise roots that will keep fresh and succulent, if we expect the best results in feeding.—T. S. Fry, Bennington Co., Vt., in Country Gentleman.

### Principles of Horticulture.

120. Leaves are expansions of bark, traversed by veins.

121. The veins consist of spiral vessels imbedded in woody fibers, they originate in the medullary sheath and liber; and they are connected by loose parenchyma, which is full of cavities containing air.

122. This parenchyma consists of two layers, of which the upper is composed of rectangular cells, and the lower of the cellular parallel with the cuticle.

123. These cellular are arranged so as to leave numerous open passages among them for the circulation of air in the inside of a leaf. Parenchyma of this nature is called spongy parenchyma.

124. Cuticle is formed of one or more layers of depressed cellular tissue, which is generally hardened, and always dry and filled with air.

125. Between many of the cells of the cuticle are placed apertures, called stomata, which have the power of opening and closing as circumstances may require.

126. It is by means of this apparatus that leaves elaborate the sap which they absorb from the albumen, converting it into the solid portions peculiar to the various kinds of plants.

127. Their external structure enables them to expose the greatest possible surface of their parenchyma to the atmosphere.

128. Their cuticle is a non-conducting skin, which protects them from great variations of temperature, and through which gaseous matter will pass readily.

129. Their stomata are pores that are chiefly intended to facilitate evaporation; for which they are well adapted by a power they possess of opening or closing as circumstances may require.

130. They are also intended for facilitating the rapid emission of air, when it is necessary that such a function should be performed.

131. The functions of stomata being of such vital importance, it is always advisable to examine them minutely in cases where doubts are entertained of the vitality of the atmosphere which a particular species may require.

132. Leaves growing in air are covered with a cuticle.

133. Leaves growing under water have no cuticle.

134. All the secretions of plants being formed in the leaves, or at least the greater part, it follows that secretions cannot take place if leaves are destroyed.

135. And as regards secretory property depends upon specific vital powers connected with the decomposition of carbonic acid, and called into action only when the leaves are freely exposed to light and air, it also follows that the quantity of secretion will be in direct proportion to the quantity of leaves, and to their free exposure to light and air.

136. The upper position of leaves is spiral, at regularly increasing or diminishing distances; they are alternate.

137. But if the space, or axis, that separates two leaves is reduced to nothing at all, the leaves are said to be opposite.

138. And if the spaces that separate several leaves be reduced to nothing, they become verticillate.

139. Opposite and verticillate leaves, therefore, differ from alternate leaves only in the spaces that separate being reduced to nothing.

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of farmers themselves, and on repeated experiments. Where wheat is raised on a good bushel, and other crops on the same scale, ammonia is only worth half as much to a farmer as in a section where wheat is \$1.50 per bushel. When an agent for some artificial fertilizer shows me a whole string of testimonials as to the value of his fertilizer, I tell him that a good analysis would be more satisfactory to me than an actual trial on my own land and under my own eye. A man need not swallow a lot of Gulliver's tales to tell if they are pure. The chemist cannot tell him whether he swallows the tales, but he can tell him whether the salts, but he can tell him whether the salts are genuine or not. Chemistry cannot tell us whether our land needs this or that manure, but it can tell us whether the manure is genuine or spurious. If farmers had correct views on this subject, the sale of inferior or worthless fertilizers would soon cease.

Retention of the Afterbirth.  
We take the following answers to a query on this subject from a late number of the Country Gentleman, and recommend them to our dairy readers:

In answer to J. C. Y.'s inquiry, as to whether there is any medicine that will cause it to come away, I answer, yes. About three years ago I saw a remedy mentioned in the Country Gentleman. I have not time now to look up the number and give the informant's name, which I would like to do, and thank him for his valuable information. Although at that time I had never seen it, I tried it, and it cured me. I made a copy of the formula for the remedy mentioned, thinking it might be of use some time, as I have for several years kept a dairy of twenty to thirty cows. Only a few years ago I had a cow which was with calf a long time, and I gave her the remedy, and she came away in twenty-four hours. Since that time I have found it necessary to give the medicine to three or four cows during each year, and always obtained the desired result. I think it is a very valuable remedy, and I give it to every cow which is not relieved of the afterbirth in twenty-four hours after calving. I give her the medicine, and if not relieved in twenty-four hours more, I repeat the dose. The milk will be fit for use at the expiration of the whole time after calving, and the cow will be as good as new. What has been said according to the views and tastes of the consumer. S. M. G. District of Columbia.

Your correspondent J. C. Y. inquires for a remedy for cows retaining the afterbirth. If the cow is in a thrifty condition, neither too fat nor too lean, she will seldom be subject to this infirmity. In order to prevent it, I have known farmers that have fed on hay only, to feed moderately with oats and timothy before calving, to increase the thrift of the animal. What has been said is an excellent feed, heating, cooling and strengthening in its effect. Another one I have seen practiced, and which to many will no doubt appear very simple, is to wash the back with the first milking, rubbing the whole extent of the loins with a strong liniment. Whether this new milk, so rubbed in, operates as a laxative, others can judge as well as myself. The rubbing no doubt strengthens the loins. Be careful not to allow the cow to take cold drinks for forty-eight hours after calving; if the water is up to blood heat no matter. By all means take the chill off. W. B.

J. C. Y. on page 69 inquires for a remedy for cows retaining the afterbirth. I believe in the old adage, that an ounce of prevention is worth a pound of cure. The treatment which I have practiced with my own cows for some years, with perfect success, is to feed two quarts of eye, bold, per day, for a few days before calving. The eye, bold, is a very successful as far as I have known, operates as a laxative, others can judge as well as myself. The rubbing no doubt strengthens the loins. Be careful not to allow the cow to take cold drinks for forty-eight hours after calving; if the water is up to blood heat no matter. By all means take the chill off. W. B.

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