

Winter Care of Farm Horses

The feed and care of farm horses during the winter months should be governed somewhat by the condition of the animals and the amount of work and exercise they are getting, writes a New York farmer in American Agriculturist. Under no conditions is it advisable to cut off the grain ration entirely or turn the animals out to a straw stack to get a scant living as best they can, or, in other words, to barely exist until springtime and hard work come again. Individual horses require different feeds and in varying quantities during the winter months. Some animals when not at work will winter nicely on silage as a principal feed, with some hay, but I prefer to add some bran and ground oats to the ration. I would not advise the feeding of silage to any horse that is being worked or driven or one that is at all subject to the colic. A horse that goes in the winter in fair flesh should be fed a moderate amount of hay twice a day. Many farmers feed too much hay. What a horse will eat in an hour is a great plenty; also enough bran and middlings or ground oats to keep it in good condition.

A little salt once a week or, better, if you can get it, a good sized lump of rock salt in the manger is advisable. Occasionally a hot bran mash with a little oilmeal added is a good thing. Heavy or excessive feeding is not necessary if the horse is in fair condition. Let a horse get poor, hair rough and dull, and it is more expensive to get him in condition again than to keep him in good shape all the time. Horses should have all the water they want. They should be watered often enough so they will not get chilled by drinking too much cold water at one time.

A Clydesdale Prize Winner.
The Clydesdale stallion Wayside Dunlass, whose portrait is reproduced from Breeder's Gazette, was bred and owned by August Post, Moulton, Ia. He was first in class at the last Iowa state fair and was one of five head



WAYSIDE DUNGLASS.

that won for Mr. Post the championship prize for five animals bred by exhibitor. He was also the sire of the first and second prize three-year-old fillies in class and the sire of first and second prize fillies bred by exhibitor at same fair. He sired the first prize two-year-old filly at that fair in 1904. He is entitled to be a prize winner and the sire of prize winners, as he was by the most noted prize winner, Bazaar Chief, that won first at Turf, Scotland, before being exported and first and championship at the Nebraska state fair and at Omaha and first and diploma at the Iowa state fair.

Twins Compared With Single Lambs.

The twin lambs in an ordinary flock are usually smaller than single lambs. Whether the smaller size is due primarily to the lack of proper nutrition after birth or to a small size at birth or to both these conditions has not been clearly determined. The difference between the birth weights of twin lambs and single lambs is smaller than is usually supposed. The birth weight of the twin male lambs is greater than the birth weight of the single female lambs. The average birth weight of all twin born lambs is about one-half a pound below the general average for all lambs. The single female lambs weighed at birth only eight-tenths of a pound more than the twin born females. The smaller size of twin lambs observed in most flocks is undoubtedly more the result of insufficient nutrition while suckling than the inferior size at birth. Very few ewes yield sufficient milk to properly nourish two thrifty, early maturing lambs. If such lambs are early taught to eat grain and hay the twin lambs will in most cases thrive equally as well as the single lambs of the same birth weight.—Professor F. B. Mumford.

Keep Animals Thrifty.

Live stock which goes into the winter fat and thrifty will always have a big advantage over that which comes to the winter season thin and emaciated. There are many breeders who are radically opposed to a policy which will result in making breeding animals fat at any season of the year. There is good reason for not overfeeding breeding animals, but there is a happy mean between the two extremes which permits the animal to become thrifty and hearty without being too fat.

Hog Types.

Stick to one breed. Berkshires of the lengthy type are good. Poland-Chinas lead in the great corn growing, hog raising states of the west. They are a prolific, early maturing, easily fattened breed of good size and appear to suit the Chicago market. A tendency is developing to approach the bacon type more nearly.

POINTS ON CHURNING.

Low Cream Temperature Necessary to Obtain Best Results.

Always strain the cream into the churn through a dipper with a perforated tin bottom. In winter add just sufficient butter color of a reliable brand to give a nice yellow tint. Do not depend on pouring it in, but count the drops for a small churning, allowing three or four drops to the pound of butter.

No definite temperature for churning can be given, but the necessity for the constant use of a thermometer must be emphasized.

Many conditions influence the temperature of the cream for churning, such as the richness of the cream, the quantity in the churn, the feed and breed of the cow, the length of time the cows have been milking, the temperature of the room and the speed of the churn. Aim to make conditions favorable to a low churning temperature, as it insures a better butter and a more exhaustive churning.

Start with the churn about one-third full, which means not more than five gallons in a No. 3 churn, and regulate the churning temperature so as to have butter within from twenty to thirty minutes. That proper temperature can only be ascertained by past experience with similar cream.

I would suggest a range of temperatures for summer from 54 to 58 degrees and in winter from 58 to 64 degrees.

Cream that contains too much skimmed milk and is too cold will foam. Never add hot water to the cream. It must be taken from the churn and heated by placing the can in a pan of hot water and stirring until the desired temperature is reached.

Poor cream often breaks, but will not gather. Try churning slowly. If this does not overcome the difficulty the only remedy is to draw off part of the buttermilk to lessen the liquid.

Very rich cream is likely to paste or thicken in the churn, so that coagulation ceases. Add enough water at the same temperature as the cream to dilute it so that it will dip.

When the churning is about completed add a couple of quarts of water several degrees lower in temperature than the cream was. In the summer it may be quite cold. This floats the butter and allows the buttermilk to run off more freely. When the butter is the size of wheat grains it is sufficiently gathered. Look frequently at the inside of the churn lid, and when but few small specks are seen on it the churning is usually finished. Watch the buttermilk as it runs through the strainer dipper, and if any butter comes with the first streams a little more churning is necessary.—Sara Rose, Canadian Dairy Instructor.

Turning Out the Cows.

Cows do better if not put out too early these frosty mornings. It is well to have the night's dew dried off. The ground is cold and apt to cause rheumatism.

SILAGE AND THE SILO

The cost of filling silos was estimated by the Illinois station from records obtained from nineteen farms in the various parts of the state, and the figures showed a range of 40 to 76 cents per ton, the average being 56 cents.

Silo of the Ancients.

The ancients knew of the silo. They used huge underground cisterns for preserving in its fresh and succulent state the forage for their animals. Americans use the above ground silo because it is more cheaply constructed and convenient of access. A 200 ton silo, eighteen feet in diameter and thirty-six feet high, will contain enough succulent feed for forty-five head of cattle for 200 days—from Oct. 10 to May 1. By means of the silo a farmer can have the equivalent of green grass for his stock the entire year.

Pasturage All the Year.
During the winter farmers expect to have to feed grain to their stock to offset the absence of succulent green pasturage. The silo will permit having such pasturage throughout the year.

Keep Silage From Freezing.

In the average silo which freezes seriously it will be found in severe weather that the top of the silage is covered with white frost, says American Cultivator. If one and a half or two inches of this top is taken off and put in the silage cart, as is the practice, it will be found that the temperature is close to it not below 22 degrees. Put a few frozen lumps of silage a foot or so in diameter in this mass and at the end, not of two hours, but of twenty-four hours, they will still be frozen lumps. In nine cases out of ten silos that freeze badly the silage is fed at a temperature of 32 to 35 degrees. All careful stockmen warm the drinking water for their cows, but it is a much more serious matter to feed a cow forty pounds of silage at 32 degrees than to give her twenty to thirty pounds of ice water.

Shut the door and stop freezing. In nearly all silos the doors at the top that are taken out when the feeding begins are never put back until the silo is again filled. The top doors are open in zero weather. All the warm air is escaping. The silo is afforded every opportunity to cool off. This method of handling the building invites freezing.

Silage Machinery.

One outfit of machinery for filling a silo may be owned in partnership by six or eight neighboring farmers at a trifling cost to each and with proper care will last many years. They can hire a thrashing engine for the motive power. A 200 ton silo complete can be built for \$300. What would 200 tons of dry hay barn cost you? Ensilage is succulent; hay is dry feed.



DAIRY FARM WISDOM

So much has been written on the subject of unprofitable cows that it would seem unnecessary to say anything further, but it is still true that unprofitable cows are being kept by many farmers, says an Ohio farmer in American Agriculturist. They not only do not pay for their keeping, but they are constantly running their owners in debt. The best thing to do with such cattle is to turn them into beef as soon as possible and sell them to the first buyer. These poor boarders can be sold from profitable cows, not so much by the size of their udders as by the use of scales and the Babcock test. Weighing the milk four or five times in the course of a year will not tell the story. Each cow's milk should be weighed once or twice a week. I find twice a week the most satisfactory. Some dairymen consider once a week sufficient. Milk should be tested once or twice a month, and each cow's feed should be weighed and charged to her at the market price.

This record should be kept for a year. I have a smooth planed board checked off for each cow hanging in my barn. In this way I know at the end of the year how much milk each cow gives and how much butter her milk will make if the cream is all saved by the use of a good centrifugal separator. By deducting the cost of keeping from the receipts of cream or butter you have the profit or loss on each cow. Your herd may all return a profit, but more likely you will find that you have some that you are keeping at a loss.

Cure For Kicking Cows.

An answer to a request in the Ohio Farmer for a method to keep a cow from kicking G. W. Lee submits the following plan: Some years ago we obtained a good butter cow, but an in-



ANTIKICKING DEVICE.

terate kicker. Numerous plans had been used to break the habit, but to no avail. After some thought we procured a fifteen inch strip of wood, put a hole in both ends, large enough for a hame strap, and then buckled it on the cow's leg, as shown in the illustration. She kicked for some time, but could only lift her foot and kick backward, while I milked her with ease. After using this method for awhile she would permit even a child to milk her.

Dairy Notes.

The flavor of butter largely depends on the food the cows eat.

Regularity in feeding and milking makes cows give more milk.

A cow that does not eat heartily will not yield an abundance of milk.

Rapid churning will not get as much butter out of cream as slow churning will.

The butter will not come as quickly when the churn is almost full of cream. The separator is a godsend to the dairymen who has enough cows to use it profitably.

Heifers do not need fattening foods while growing, but food that will develop bone and muscle.

One will finally get a better price for his butter if he always makes it of uniformly good quality.

All of the milk should be drawn from a cow's udder at every milking, as the reverse tends to make her go dry.

How Dirt Gets In Milk.

A large source of milk contamination comes from the udders, says American Cultivator. These should be washed before milking. The number of colonies of bacteria developed from exposures of apparently clean, unwashed udders was three times as many as under the same udders after washing. With soiled or muddy udders, such as are frequently found in dairies, the benefits derived from washing udders are much greater than the results show. With udders that were apparently clean it was found that an average of three and one-half times as much dirt fell from the unwashed udders as from the same udders after they were washed. With soiled udders the average was eighteen and with muddy udders ninety times as much dirt from the unwashed as from the washed.

To Make Dairying Profitable.

Never buy a cow that the owner is so anxious to sell that he will sell her cheap. The cow you need most is the one the owner wants to keep most of all the rest. Make the acre the unit of measure in considering your dairy receipts. Then try to make each acre devoted to the dairy business give the largest possible returns. This attempted, you will find yourself enriching your soil instead of robbing it.—Chicago Inter Ocean.

The Cow to Sell.

The wise farmer does not sell a good milk cow. The more intelligent he is and the more observing the more poor cows he will have to sell, and it is not likely to be an easy matter to purchase profitable cows.

BARN FOR DAIRYMEN.

They Should Be Warm, Well Ventilated, Light and Clean.

At the present time there is a strong demand for milk produced under better sanitary conditions. This demand is growing, and the man who will make the greatest success in the future in dairying is the one who unites himself with this new movement. It is a fact, however lamentable, that on a large portion of the dairy farms the milk is produced in filthy barns, by filthy cows, attended by dirty milkers. Dairymen must look upon the stable as a place where food is prepared and conduct it accordingly.

A stable for dairy cows should be well lighted and ventilated. It should have light walls and ceiling and a sound floor. Dairy cows when crowded into dark and dirty stables cannot be expected to produce as much milk or milk with as wholesome properties as those provided with clean, airy quarters where the sunlight enters through numerous windows and where the foul air of the stable is replaced by pure air without subjecting the cows to injurious drafts. When on full feed the dairy cow is hard worked and less able to withstand extremes of weather than is other stock, for her energies are then being exerted in the direction of production rather than self preservation. It is not only humane, but more profitable, to keep her warm by making the stable comfortable instead of compelling her to use large amounts of expensive food in maintaining her body temperature.

In the dairy barn no one thing is of more importance than a sound, impervious floor.

One of the greatest wastes in the farm is the constant loss of fertility occasioned by the wasting of manure. When the liquid as well as the solid manure finds a ready escape through cracks and knot holes, with no means of retaining it, the possible profits of the farm are greatly reduced.

Wooden floors are fairly practical in cheap barns if laid with sufficient slope toward the gutters to keep them reasonably free from moisture and have sufficient circulation underneath to keep them dry. The planks should be of even width, and every plank should be replaced with a new one as rapidly as it decays and affords place for the accumulation of filth or the loss of manure.

Because of their permanency cement floors are really the cheaper in the long run, though they cost more in the building. They add more to the easy maintenance of cleanliness and sanitary conditions and do not permit any waste of manure. In winter they necessitate plenty of bedding that the cow's udder may not come in contact with the cold floor.—Herbert A. Hopper, Assistant in Dairying, University of Illinois.

Silage in Rotation.

I feed silage twice a day, morning and night, with a hay feed between. Each cow gets about forty pounds, says a New York farmer in American Agriculturist. Fresh milk cows get about 14 pounds bran, 14 pounds cornmeal, 42 pounds buckwheat middlings and twelve pounds clover and timothy hay, varied somewhat according to the capacity of the animal. The dry cows are fed some silage, with sometimes a little grain. I consider silage superior to old style feed and more profitable.

DAIRY FARM WISDOM

As cows advance in the period of lactation it becomes more necessary to mix the cream from the different milkings with greater care to insure a turnout at the churn and to make the quality just right.

Dairying and Crops.

Dairying plays an important part in a successful rotation of crops, and affords a good means of turning all kinds of grain and fodder into valuable manure, and so adding to the fertility of the soil by feeding them to dairy cows.

Streaky Butter.

To avoid streaky butter note, first, that the cream is all of the same ripeness; never churn old and new cream until it has been mixed and well stirred together for at least four hours; then be sure that the butter is not underchurned.—Farm Progress.

When to Skim.

Skim before milk gets thick. Even when it begins to taste sour cream rising is suspended, for souring is not to hasten and perfect cream rising, but to retard and stop it altogether, as milk on acidulating loads the little cream globules down with cheese, and they cannot rise.

The Farm Separator.

The use of the separator in the dairy lessens very materially the labor of caring for the milk, besides securing all of the cream. Using the separator is as much an advance over the creamery system of management as the creamery is over the old plan of shallow pans or crocks.

Washing Milk Vessels.

Rinsing milk pails and pans with cold water is all right, but follow the rinsing with a thorough scalding in pure water. That puts an end to the disease germs. They cannot stand hot water. Do not use any cloths about your buttermaking that are not as clean as the driven snow.—Farm Journal.

Feeding the Calf.

Good milk is the best stuff for the calves at any time of the year, says Farm Journal. Nobody who has common sense can deny that, but if you haven't the milk to spare make up for the loss by adding either buckwheat shorts or wheat middlings, fed dry, not mixed with the skimmed milk.

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Market Reports.

Portland, Jan. 26, 1906.

GRAIN, PRODUCE, FEED.

Wheat—Walla Walla, 72c; Valley, 73c; blueshem, 74c; red, 69c.

Oats—White \$28; gray, \$27.

Barley—Brewing, \$24; feed, \$23; rolled, \$25.

Hay—Timothy, \$10 to \$11; clover, \$8.50 to \$9; cheat, \$7.50 to \$8; alfalfa, \$10.

Millicuffs—Middlings, \$25 to 26; cheap, \$19; bran, \$18 to 19; shorts, \$20 to 21.

Flour—Hard wheat, patent, \$3.35; straight, \$3.65 to \$4.00; Graham, \$3.75; rye, \$5; whole wheat flour, \$4.00; valley flour, \$3.65 to 3.90 Dakota, \$6.50 to 7.25; Eastern rye, \$5.40; Pillsbury, \$6.30 to 7.15.

Corn—Whole, \$25; cracked, \$26 per ton.

Rye—\$1.50 per cwt.

PRODUCE.

Butter—Fancy creamery, 25 27 1/2 c; city creamery, 30 to 32 1/2 c dairy, 16 1/2 to 17c; store 14 to 15c.

Cheese—Young America, 16c, Oregon full cream, 15c.

Eggs—Fresh Oregon ranch 27 1/2; Eastern eggs, 22 to 23; cold storage,

Poultry—Roosters, 10 c; hens 12 1/2 to 13c; fryers, 10 1/2 to 11; broilers 12 1/2 to 13c; geese, live, 9 to 10 1/2; dressed, 16 to 17; turkeys, live, 14-1c dressed, 13 to 14c; ducks, old, 11 to 13c; spring ducks, 15 to 17c; pigeons, per dozen, \$1 to 1.25; squabs, \$2 to 2.50.

Honey—Dark, 10 1/2 to 11c; amber, 12 to 13c; fancy white, 14 to 15c.

FRUITS AND VEGETABLES.

Apples—Green, 75c to 1.75.

Grape fruit—Crate \$3. to 3.30

Huckleberries—7c per lb.

Cranberries—\$14.

Tropical fruits—Lemons, fancy, \$3.25; choice, \$3. per box; oranges, \$2.50 to 2.75; bananas, 5c per lb, pineapples, \$4.50 to 5 per dozen.

Potatoes—Oregon, 60 to 80c; onions, \$1.00 to 1.10 per 100 pounds tomatoes box, 20 to 30c; turnips, 75 to 90c per sack; cabbages, per pound 1 1/2c; head lettuce, 25 to 20c dozen; hothouse, \$1 box; celery 65 to 75c dozen.

LIVESTOCK MARKET.

Cattle—Best steers \$3.00 to 3.85; cows; 3.00 to 3.25; calves, \$3.00 to \$4.75.

Sheep—\$5.00 to 5.25

Hogs—\$5.75 to 6.25

HOPS, WOOL, ETC.

Hops—Choice 10 to 11

Wool—Valley 26 to 27 c; East, ern Oregon 18 to 20c; nominal—nothing doing.

Beeswax—Good, clean and pure 20 to 22c per lb.

Hides—Dry hides, No 1, 16 lbs and up, 16 and 17 c per lb; dry calf No 1 under 5 pounds 17 to 18c; dry salted, bulls and stags one third less.

Teacher's Examinations

Notice is hereby given that the county superintendent of Lane County will hold the regular examination of applicants for state and county papers in the court house in Eugene as follows:

FOR STATE PAPERS.

Commencing Wednesday, February 14, at nine o'clock a. m., and continuing until Saturday, February 17, at four o'clock p. m.

FOR COUNTY PAPERS.

Commencing Wednesday, February 14, at nine o'clock a. m., and continuing until Saturday, February 17, at four o'clock p. m.

Subject to change without notice.

All outward freight forwarded only at the joint risk of shipper and consignee.

Stage leaves Willwood on the arrival of train on Mondays, Wednesdays and Fridays for Bend and vice versa. Returning on Tuesdays, Thursdays and Saturdays.

Freight will not be received at the O. & S. E. R. R. Depot after 3 p. m. To insure forwarding on next train freight must be delivered in ample time to permit of its being billed.

ARRIVAL AND DEPARTURE OF S. P. TRAINS.

NORTH BOUND		SOUTH BOUND	
No. 12	11:33 p.m.	No. 11	8:35 p.m.
No. 16	2:02 a.m.	No. 15	2:24 a.m.

O. & S. E. R. R. CO.

Time Table No. 4
To take effect April 24, 1905.

East Bound	Band 4 Tuesday W. Bound	and only	Band Daily Ex-	No 2—No 4
No 3—No 1	pt Sunday.			

P.M. A.M. P.M.	STATIONS	Elev	A.M. P.M.
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2:50	3:00	0	Cr	tage Grove	671	11:10	5:18
2:50	3:00	0	W	Willden	710	10:49	5:08
2:50	3:00	0	C	Curran	727	10:44	4:59
2:50	3:00	0	G	Geo Gorio	730	10:38	4:53
2:50	3:00	0	B	Baker	807	10:33	4:47
2:50	3:00	0	S	Soren	841	10:29	4:44
2:50	3:00	0	R	Red Rock	891	10:25	4:39
2:50	3:00	0	G	Gravel Pit	901	10:20	4:35
2:50	3:00	0	S	Star	914	10:01	4:20
2:50	3:00	0	S	Star	917	9:48	4:16
2:50	3:00	0	R	Rock Point	916	9:45	4:12
2:50	3:00	0	R	Red Bridge	1020	9:35	4:05
2:50	3:00	0	W	Willwood	1040	9:30	4:00
2:50	3:00	0					