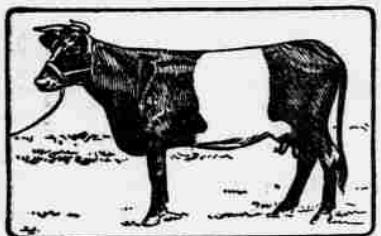


IN THE DAIRY

The record of the herd is a matter of the utmost importance. The highest degree of success cannot be attained unless dairymen know the productive capacity of each individual cow. This is necessary as a guide to rational treatment and to insure the greatest profit. The record should include not only the dairy performance, but a concise history and description, of each animal. The former requires a daily record of the milk yield of every cow and a fat test of several consecutive milkings if accurate records are to be secured. Samples for this test may be mixed and this "composite sample" tested, thus obtaining the average.

The method is easily learned and practiced. With the percentage of fat taken periodically and a summary of the daily yield of milk, the dairyman has a full record of every cow in his herd. To give still more complete knowledge there should also be a record, at least approximately accurate, showing the cost of the food consumed by each cow, so that the economy of production may be shown.

Dutch Belted Cattle.
Writing of Dutch belted cattle in Kimball's Dairy Farmer, C. D. Malette of Iowa says: One of the most striking characteristics of the breed is the color, jet black, with a continuous



TYPICAL DUTCH BELTED COW.

white belt around the body. The belt is always reproduced and will crop out in the grades for several generations. In form these cattle are usually of the dairy type, wedge shaped, with good constitutions and large, well developed udders. The cows often reach a weight of 1,200 pounds. They are gentle and quiet. Even the bulls are very rarely ill tempered. For the production of milk and butter these cattle are among the best. They are persistent milkers and not only give large quantities, but milk containing a large per cent of fat. The belted herd of one of the eastern breeds over a period of eleven years gave an average of 6,018 pounds of milk per cow.

These cattle as they become better known are rapidly coming to the front among the various dairy breeds.

Keeping Cows Clean.

To assist in keeping a stall kept clean there is nothing so helpful as a stall of just the right length. Whether the cow be long or short, the stall should be suited to her length. Most farmers err in thinking a cow requires a larger stall than she really does. A stall that is long enough for the cow to stand comfortably in with all four feet when eating from the manger is the right length. Then when she is lying down she will lie forward of the gutter and so keep herself clean for the most part. The gutter should be at least eight inches deep, and if it is eighteen inches wide it may be more easily cleaned than if it is narrow. With a deep gutter the cow will rarely stand with her hind feet in it and so soil herself and stall when she steps out of it.

Value of Testing.

It cannot be impressed too strongly upon everyday dairymen and farmers who milk cows, the necessity of having and using the Babcock tester and a milk scale, writes a dairyman in Hoard's Dairyman. Since procuring an outfit some time ago I have found out just what my cows are doing. I found I had one star boarder out of thirteen cows in milk. She goes to the butcher soon. I also discovered the operator for a creamery that I have been selling cream to has been using a 17.6 c. c. pipette for testing cream instead of an 18 c. c., though he was ignorant of the difference, but the 17.6 was the pipette the company furnished him, and it has been making them a snug sum every month.

A Good Dairy Ration.

Corn silage is an excellent feed, but requires some feed rich in protein to be used in connection with it. Possibly the adjunct may be alfalfa, clover vetch, pea hay or oilmeal. Perhaps farmers in the grain growing districts in addition to raising corn produce field peas. If the latter are harvested for hay or put in the silo and fed in connection with corn silage, the two combine well and with a very little grain feed would make a good ration for the dairy cow.—James Withycombe, Director Oregon Experiment Station.

Working Butter.

If butter is properly worked, no one can tell whether it is done with a paddle or worker. When a paddle is used, unless care is taken, there is a liability of hurting the grain owing to the drawing action of the paddle. In working butter the worker should press directly down, with no drawing motion.

Care of the Calf.

Horace L. Brown of Cortland, N. Y., proprietor of Star farm herd, says, "The first six months of an animal's life prove the worth of its future usefulness." This is a true statement, and if you undertake to rear a calf give it the best of care.

CREAMERY SUCCESS.

Some Points For the Buttermaker by a New Hampshire Expert.
The winner of the New Hampshire sweepstakes dairy prize, E. L. Childs, has been superintendent of the Cornish (N. H.) creamery for the past eleven years and had worked for several years before as a second hand in the same creamery. In an article on creamery cows in American Cultivator he says: "The buttermaker must be agreeable at all times. There is no part of creamery management of so much importance as the buttermaker's attitude at the weigh can. Here he must instruct the patrons how to produce, care for and deliver milk or cream that will make a high grade butter. He must gain their confidence and hold it by giving just weights and accurate tests. He may also ask them to see the tests made, explaining every point that isn't plain to them about the increase in butter over butter fat, etc. He should also be able to give instructions about feeding and breeding dairy stock. His sense of taste and smell must be well trained, so as not to take a lot of milk that will be the means of spoiling a churning."

Handling the Milk.
Now that the buttermaker has the milk in his possession he must separate at about 85 degrees, then immediately cool to about 60 degrees F. to ripen the cream. Then a prepared starter should be added for best and uniform results. This may be made from skim milk, buttermilk or some pure commercial culture. In my own case I have had as good success with carefully selected skim milk alone by first pasteurizing the milk and ripening at temperature of about 60 degrees for four days. This makes a very smooth starter with a sharp acid flavor. The starter should show about one-sixtieth of 1 per cent of acidity by Farrington's test when added to the cream. When the cream is ready to churn it should show about 50 per cent by the same test. Cream ripened in this way will surely make high scoring butter if the rest of the work is done rightly. Fifty-five to 60 degrees F. in summer and 60 degrees F. in winter are the best temperatures for ripening cream, as the flavor forming germs multiply faster at these temperatures.

Churn at Low Temperature.
Churning should be done at as low a temperature as possible to secure all the butter fat without injury to the grain. I usually churn at a temperature of 52 to 54 degrees F. in summer and 56 to 58 degrees in winter. The churn then runs usually from forty to fifty minutes. Butter should be washed in water of about the same temperature as the buttermilk and in the granular form, but does not need more than half the washing that some give it. Too much washing takes out the best flavor.

Salt should also be applied while the butter is still in the granular form and then worked in thoroughly, taking care not to overwork and spoil the grain. It is safe to say that more than half the butter that is found in our markets is not properly worked. Mottles, streaks and greasy butter are most always due to improper working. Butter should be put up in attractive packages to suit the demands of the trade.

The Bull to Select.
The dairyman that is afraid of his own grown bulls is a safe man to buy from. Why? Because his stock has vigor, for it has temper. It seems to be a well established fact that the sluggish bull does not transmit ancestral traits or is not at prepotent as the less amiable one. A bull is not a plaything, and even the most gentle ones have ungentle moments. If you read the dairy literature, it seems to be nearly always the gentle bull, the dear pet, that goes or tramples his master to death.

DAIRY BRIEFS.

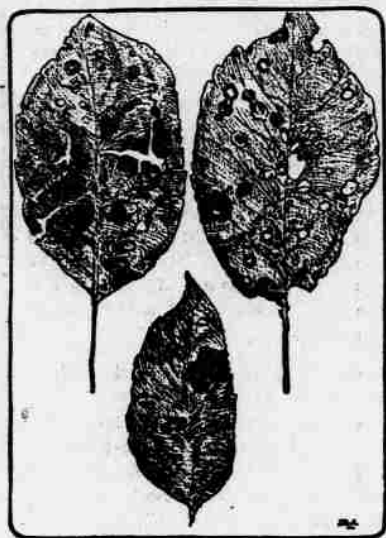
Dairy economy means the greatest production from the smallest number of choice cows on the smallest acreage.
Buy a good cow every time you can get her at a reasonable price, but buy a good bull every time regardless of price.
In buying a cow avoid the one with a restless disposition. There is a difference between high nervous development and restlessness.
Empty the cans and clean them thoroughly as soon as they get home from the creamery.
A hot tempered man has no business in the dairy barn.
We cannot feed heavily one week and then let down the next and get an even flow of milk.
Remember this—the good cow needs good care. Colantha could not have made her record if she had not had the best care.
Dairy cow improvement is the result of applied knowledge in breeding.
When you buy a blooded dairy cow, go back far enough to learn what kind of a dam gave birth to her father.
A bull is about as dangerous a pet as a grizzly bear, and the man who handles one without a nose stick is risking his life every time he does it.
The Babcock tester and the milk scale pick out the profitable cows.
A stable odor is a mighty persistent worker when it once gets a start in the milk.
There is no quick way of building up a dairy herd. It takes years of careful breeding.
Cleanliness and sunshine have the same effect in the stables as in the human habitation, dealing death to disease germs and health and strength to the stock, and they are cheaper than medicine.

FARM AND GARDEN

LEAF SPOT DISEASE.

It Attacks Apple Trees—Is Prominent in Midsummer.

There are several species of fungi that attack apple leaves, producing brown, circular spots that range from mere specks to spots one-fourth of an inch in diameter and in some cases much larger, as here shown. The disease may begin to appear in the spring soon after the young leaves unfold, but the spots are usually more prominent between midsummer and the end of the season. This diseased condition causes the leaves to drop prematurely, frequently leaving the trees denuded in early autumn, six weeks or two months



UNSPRAYED APPLE LEAVES. [Affected with leaf spot disease.]

before the normal period of leaf fall. Trees thus deprived of their foliage cease activity, and as a result the fruit is small and not properly matured, the buds for the crops of the following year are weakened and in some cases not fully developed, and the life of the tree is materially shortened. These leaf diseases are partly responsible for the failure of the trees to produce crops and for the early decline of the orchard.

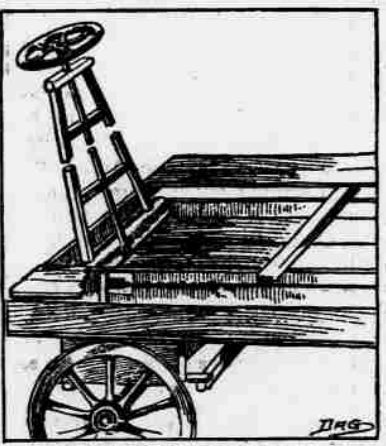
One of the most striking results of spraying an apple orchard is the effect on the foliage. These leaf diseases are largely prevented by applications of Bordeaux mixture, and the foliage remains fresh and green long after unsprayed trees are defoliated. This was true of all the demonstration blocks in the Ozarks during the past season. The unsprayed trees began to shed their leaves in July and were practically defoliated by the last of August, a month before the time to pick the crop.—W. M. Scott, Bureau of Plant Industry.

Killing Goldenrod.

Years ago we bought a farm that had one field so thickly covered with goldenrod that ten acres would not have pastured a goose. There was absolutely no grass. We mowed it off and put about five sheep to the acre and fed enough wheat bran to keep them in a thriving condition, and the next season a finer blue grass pasture was never seen, says a writer in National Stockman and Farmer. They had killed "every last plant." The cows won't eat it, and it is fortunate that they will not, for if they did no use could be made of their milk, but sheep like it and will thrive on the young growth.

Braking on a High Load.

Teamsters and farmers who haul hay on roads where a brake is necessary will no doubt appreciate the idea embodied in the following hint, credited to a writer in the Prairie Farmer: So construct a brake that it may be operated from the top of the load of hay or forage. In order to do this build the standard of the rack as high as the



BRAKE FOR A HAY WAGON.

load is liable to be. Secure a gas pipe or rod about one inch in diameter and fasten it in strap iron bearings on the standard. Surmount it with a small balance wheel keyed firmly. At the lower end of the rod attach a chain, which is passed over a pulley in the side of the bed and continued to the brake lever on the rear wheels.

Concerning Moisture.

It is surprising what use can be made of a half inch of rainfall provided the soil is stirred on the surface shortly after its precipitation, remarks Iowa Homestead. In dry farming districts this amount of rainfall is regarded as a great boon to crops, though of course men in those localities have learned sensible methods of conserving the moisture supply.

Thinning Tree Fruits.

Thinning tree fruits should be practiced by every intelligent grower. Better fruit and more money will be the result.

FORE FENCES.

A Great and Growing Need on Big Farms in the West.

There is not a township in the great central or southern west but what can show a dozen or more of what you might call first class farmers. These are the men whose affairs should be studied by the average man and whose ways should be imitated in a measure at least.

One of the most successful farmers of the great central west recently stated that in his opinion the greatest need now in this area is more and better fencing. His doctrine was that every fence on the farm should be hog tight so that hogs instead of being ranged in dry lots around the buildings could run hither and thither over the pastures, over the stubble fields and when the corn is husked out over the corn-stalk fields.

A Good Sound Doctrine.

It was the belief of this man that farmers could sooner or later eradicate absolutely the disease of swine plague and cholera by adopting this plan. It adds stamina to the breeding stock, and it certainly paves the way for making cheaper pork. Of course by using more grass and less grain it may take a little longer to finish hogs, but in his opinion 100 pounds can be made cheaper by taking a year or fourteen months to do it than can be done by making it largely on grain in nine or ten months. We believe that this is good, sound doctrine to preach to our readers, says Iowa Homestead. Fencing, it is true, is costly, and yet prices are by no means prohibitory.

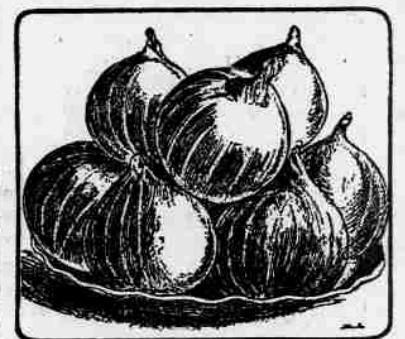
Not All at Once.

It is not our thought that any man will undertake to fence his farm with hog tight fences all at once, but by adding 40, 80 or 100 rods a year the task will soon be finished, and in the meantime the increased income from the hog end of the farm will take care of the fencing bills.

GROWING ONIONS.

Successful Method of Cultivating and Curing a Crop.

As soon as the onions come through the ground we start using the cultivator and go over them once a week until they are laid by. We weed as often as necessary to keep them clean. After the tops are large and begin to tangle it is not desirable to attempt to work in the crop, as considerable damage may be done. My best onions have averaged 600 bushels an acre. I sold



YELLOW GLOBE DANVERS ONIONS.

them at 50 cents a bushel and delivered right from field. I did no shipping last year. I have never had any trouble with diseases or insects. I keep the ground perfectly clean and never allow any accumulations to harbor insect pests, writes an Ohio man in American Agriculturist.

After harvesting our crop we frequently leave the onions in the field ten days in the crates if the weather is favorable and then put them in the open curing sheds.

Importance of Uniformity.

The fact that the eastern fruit growers and truck growers are not as well organized as are the western and more distant producers is very largely due to the fact that they have the advantage of lower express rates and that the merchants will handle their goods in small consignments. By this method of small individual shipments the product upon the market is less uniform in character both as regards grade and method and type of package than is the case when the product is marketed through the exchange and in carload lots. In order to handle carload shipments successfully vegetables must be uniform in character and size and the product well graded. These are advantages which have been learned by distant shippers and which have in a great measure been forced upon them by the necessity of shipping in carload lots.—Professor L. C. Corbett.

In Growing Alfalfa.

In growing alfalfa the ground should be well prepared, as free as possible from seeds, and the seed should be sown when the soil is in suitable condition for production. The seed should be applied at the rate of about twenty pounds per acre, says Kimball's Dairy Farmer. For Nebraska, if possible, use Nebraska seed or at least that which is produced under the same conditions.

Windbreak For Montana.

A good windbreak for Montana is what is known as the white willow. This tree is very successfully grown upon the bleak plains of North Dakota and is as satisfactory as any tree that has been tried for this purpose, says a writer in Farm and Fireside. It is easily grown from cuttings, which may be obtained from almost any of the northern nurserymen.

Cutting Asparagus.

Cuttings from the mature asparagus bed should be made regularly and thoroughly, being always careful not to injure the crowns of the plants with the knife. Keep weeds out. Beds set this spring or last fall should not be cut at all this season. Let the plants grow unmolested.—Farm Journal.

LAUGH AND BE HEALTHY.

Don't Bottle Yourself Up and Court Nervous Prostration.

"If I were to assign any one special cause for nervous breakdown," said the doctor, "I would say lack of a sense of humor. You may retort that a person on the eve of a collapse doesn't feel particularly humorous and dismiss my suggestion with a laugh, but there's more to it than perhaps you think. I regard humor as one of the most valuable assets of mankind. In fact, there's nothing that can replace it, and I am genuinely sorry for the mortal from whose composition it seems to have been left out. It always has been a good thing for its possessor, but in this day of rush and more or less worry it is especially to be appreciated, for the man who is able to see the funny side of things, even though the joke may be on him, has a sort of safety valve, and he isn't likely to go to pieces as the result of a nervous explosion.

"Serious folk, you see, are invariably engaged in bottling things up—experiences of various kinds, their own impressions, and so on. They don't give themselves the outlet that is enjoyed by the man fond of a laugh and whose knowledge of the ridiculous enables him to regard things in proper perspective. The unduly serious don't dismiss trifles with a shrug and a smile. They exaggerate matters which should only be given a moment or so of amused attention, and the first that they know they have so much to think of that the poor brains become overtaxed, and off they must go to sanitariums or to sea or some place where, the theory is, some of the supposedly important affairs which have been troubling them can be eliminated from the mind."—New York Press.

Why She Wouldn't.

The proud parents who love to put their children on show are often disappointed through the perverseness of the youngsters. An incident of the kind occurred in a Columbus home when the fond mother asked her little daughter to sing a song for the guests of the evening. Great pains had been taken to teach the song to the child, and brilliant results were expected. But when the time for the singing came the little girl was not disposed to sing. The company begged and the mother insisted, even offering the child another piece of cake. But still the child refused.

"But why won't you sing?" the mother asked impatiently.
"Mamma," said the child, "it hurts my finger nails."
She did not sing.—Columbus Dispatch.

An Author's First Strike.

Justin McCarthy in his early days once submitted a story to a magazine called the Galaxy. One day he said to the editor, "I have come to see if you will take that story I offered the Galaxy."
"Yes," cordially responded the editor, "and sixty more like it."
Time passed, and one day Mr. McCarthy walked into the Galaxy office with an imposing pile of manuscript under his arm.
"What is that?" asked Mr. Sheldon.

Mr. McCarthy laid the bundle of manuscript upon the publisher's desk and replied, "Here are the sixty stories you ordered on the occasion of my last visit."
He got a check covering the whole sixty.—London Telegraph.

Didn't Mind the Disgrace.

Walter Howard, the London dramatist, was leaving the stage door of a theater one evening when an anemic looking youth stepped up and said, "Are you Mr. Howard?" The author replied in the affirmative, whereupon the young fellow said he wanted to go on the stage. Noticing his evident unfitness for such a life, Howard advised him to stick to his present occupation, whatever it was. "I am assistant to the pawnbroker across the way," said the ambitious young man. "And what do your people think of your going on the stage?" asked Howard. "Oh, they are right against it," was the jaunty reply, "but I shouldn't mind the disgrace myself."

Times Had Changed.

"Did you and pa start with plenty of money?" asked the daughter.
"We lived upon very little but love, dear," was the mother's gentle answer.
"But I suppose pa soon got lots of salary?"
"No, dear; it was a great struggle at first."
"Then how did you manage? Pa had a little in the bank?"
"Not a farthing."
"Oh, my! George is in just the same position, and we love each other, and—"
"If that penniless adventurer ever dares to enter this house again I will tell him what I think of him! Go to your room at once!"—London Queen.

CONDENSED STORIES.

How a Ready Actor Overcame an Awkward Dilemma.

E. H. Sothorn a few days before he set out on his London venture talked at a farewell dinner about stage presence of mind.

"When a dilemma unexpectedly crops up," he said, "I manage, in an awkward way, to master it somehow. But I never acquit myself with the brilliance that marks the typical anecdotes of stage presence of mind.

"They tell of a really remarkable case that happened in Cincinnati. It was a melodrama. The hero in the second act stood in the bow of a ship soliloquizing about love, while the waves rolled and rocked.

"The waves were made in this way: Blue canvas was spread loose-



THE HEAD LOOKED ABOUT IN A WILD WAY.

ly over the stage and under the canvas some twenty or thirty supers lay on their backs, kicking and rolling and beating with their arms.

"But it happened that at this performance there was a large hole in the canvas. Through the hole, as the actor talked passionately about love, the head of a super suddenly protruded. The head looked about in a wild, scared way, and quick as thought the actor shouted:

"Man overboard!"
"Then when the head disappeared he said sadly:
"Alas, the perils of the deep! Another poor soul gone to his last reward!"

Blaine and the Bore.

A notorious bore came to see James G. Blaine when he was secretary of state. Mr. Blaine was busy. Still, he was polite. He was extremely sorry his engagements made it impossible to talk to the visitor, but he would be glad to see him the next day.

"What time?" asked the bore.
Mr. Blaine made an elaborate consultation of his engagement book. "Come at 10 o'clock tomorrow morning," he said. "I shall be glad to see you then. You understand the hour, do you not? Ten o'clock precisely."

"I shall be here," said the bore.
"Mark you," cautioned Mr. Blaine, "when I say 10 o'clock I mean 10 o'clock. You must be here on the exact minute. Promptly at 10, then."

"All right," replied the bore. And he went away jubilant.
"Blaine," asked William E. Chandler, who was present, "why did you make such a precise appointment with that man? You do not want to see him."

"I know it," replied Blaine, "but I fixed the hour with exactness and impressed it on him so I shall know when to be out."—Saturday Evening Post.

Hot Weather Refuge.

The Rev. E. W. Webber, a Maine minister, who was located for awhile in a Georgia town as pastor of a Universalist church, occasionally relates this story:

He was talking with William Dodson, ex-president of the Georgia senate.

"I suppose you feel the heat greatly down here in the summer, don't you?" queried Mr. Webber of the southern man.

"Well, it does get pretty warm here sometimes," admitted Mr. Dodson, "but every time I feel too warm I think of the visit I once made to Boston, and it sends the cold shivers all over men."—Boston Record.

Tillman on Chivalry.

"The duel," said Senator Tillman at a dinner in Washington, "is a thing I abhor. I believe, though, in manliness and pluck, and I hope the time will never come when a conversation such as was recently overheard in a New York club will be typical of American chivalry."
"A New York clubman approached a friend and whispered anxiously:
"Bludd threatens to kick me the next time he sees me in company. If he should come in here now, what would you advise me to do?"
"Sit down," was the reply."