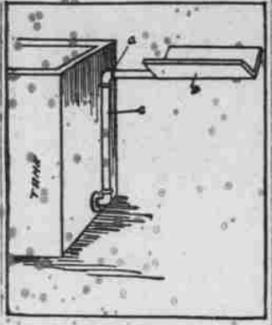


ECONOMY IN COOLING MILK

Water Tank Method is One of Best, but Not Very Useful Unless Done Right—Sure Way.

Many use the water-tank method of cooling milk. This is one of the best, but it is not very useful unless it is done right. Most water tanks are built so the water runs in at the top and out at the top, says a writer in Farm and Home. This leaves the wa-



Tank Outfit.

ter at the bottom of the tank to become more or less stagnant.

The only sure way of keeping the water changed in a cooling tank is to attach the outlet at the bottom of the tank. The problem then, is to keep the tank full.

This may be done by making an outlet, as shown in the cut; c is an ordinary metal pipe, which empties into the trough, b. At a is shown a hole in the elbow of the pipe, which admits air enough to prevent a siphon forming. As soon as the water in the tank rises to a certain height it runs out.

EACH COW HAS SALT CELLAR

Two Devices Shown in Illustration Herewith Have Much to Do With Animal's Comfort.

Two devices are shown in the illustration that are intended to increase the dairy cow's comfort and thereby increase the flow of milk.

Fig. 1.—A is the stall partition. B and C are small salt boxes fastened to either side of the partition by the single bolt, (D) indicated by the dotted line.

Fig. 2.—Hinged feeding rack for pens. A shows the rack in feeding position, held in place by a staple and

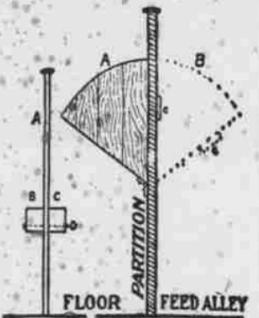


Fig. 1. Fig. 2.

bolt. B shows the rack drawn out into filling position by means of the handle (c).

Wooden Pails.

Don't use wooden pails. Tin makes the best milk containers for any purpose, provided the seams are smooth and there are no sharp angles to catch and hold minute portions of milk in which bacteria can breed.



Keep the separator absolutely clean. Milk absorbs odors readily and soon taints.

Get the milk out of the cow stable immediately after milking.

Butter of good keeping quality must be free from buttermilk.

The flavor of milk will vary according to the feed and other things.

The cost of filling the silo need not exceed \$1 a ton for the silage stored.

Courtesy pays with cows and the sensitiveness of their natures demands it.

It is far better to pay a little more and have a cow whose performance is good.

Pure air is necessary to health and health to enable a cow to be a producer.

Until a cow has paid for her keeping she cannot return any profit to her owner.

The demand for good high producing milk cows is great, and steadily increasing.

The cooler weather brings the milk flow up because it makes the flies less annoying.

If you use soap or soap powder for cleaning the dairy vessels be sure and thoroughly rinse them.

The cow's pedigree, to be most valuable, should correspond with the story that the pail tells.

Dairying is becoming one of the most substantial industries connected with farming and country life.

One of the greatest menaces to dairying in raising the dairy calves is an occasional outbreak of white scours.

It has been said that the silo has doubled the stock carrying capacity and solved the problem of intensive culture on thousands of farms all over the country.

A Year's Drought.

We reached at the beginning of the new year a critical stage in the most unusual and prolonged drought this country has ever known. Records of rainfall have been kept in the city of New York for something like eighty-five years. The past season shows less precipitation than at any time during that long period. There was a lower amount of rain recorded in St. Paul, from January to November, than during the same time in seventy-five years. The dry spell was country-wide in its scope and most everywhere crops suffered as a consequence. The condition of winter wheat on December 1st was the lowest ever recorded on a similar date, except in that month five years ago. It was materially below the average in every section except the Pacific Northwest. The condition was such at the time of writing that the outcome of the crop was regarded with much concern. It was reported to be much more dependent than ordinarily upon future influences.

Spring wheat was hit hard, especially in North Dakota, where the average yield was but five bushels per acre, as compared with an average there in the past ten years of almost three times that much. Reports of the Agricultural department, just issued, show that 1909 cotton suffered severely from lack of rainfall. There was a total loss of almost 3,000,000 bales as the direct result of this. Oklahoma, Arkansas and Texas, which were the most arid States of that territory then, forgot for the time being the much-fought boll weevil. Every energy was bent upon securing water.

The dryness was also prevalent throughout the eastern part of the Atlantic coast States, nearly all of the middle Atlantic States and the Pacific Northwest. It was a forerunner to the present drought, for the 1910 cotton crop showed the shortest estimated yield per acre, except 1909, for ten years. The output is thought to be about 900,000 bales behind the crop average of the past five years.

Along with the recent drought came an alarming number of typhoid fever cases. Surgeon-General Wyman, of the Bureau of Public Health and Marine Hospital Service, received reports of an epidemic in Oklahoma and other places. From the former state 551 cases were reported in September. A month later the dreaded disease had jumped to upward of 600. Oregon started with thirty-five in July. There

was a steady increase, ninety being reported at the end of three months following. Indiana reported 800 typhoid cases from eighty-three counties in the month of September. Chicago, from August to October, inclusive, developed 1,952 cases as against 534 for the like period a year before.

These localities are all in the dry belt. It led to a discussion as to how much a drought affected the spread of typhoid. A high medical authority gave it as his opinion that the present dry spell in many of the localities where the fever is prevalent is responsible for apparent progress of the disease. He argued that a city getting its water supply from a river with other towns upstream is bound to suffer at such a time, because, while the amount of sewerage remains constant, the stage of the river is lower, causing a concentration of the pollution. Likewise, during a time of drought along the watersheds of rivers supplying city water, there is bound to be an accumulation of excrement. A subsequent rainfall washes this into the municipal water supply and it is thus carried almost directly to the unsuspecting consumers.

A prominent New York editor, in seeking a cause for the drought, advanced the interesting theory that the great modern application of electricity had so drawn upon the reserve electrical supply in the earth as to affect the rainfall. He thought that possibly there had been an exhaustion of the thunder-shower energy reserve.

A leading scientist at the capital replied that there never could be a material consumption of the world's supply of electricity by commercial use, because any process by which electricity is obtained produces as much positive electricity as negative. Therefore the two constantly balance each other. While the weather bureau records show thunderstorms less frequent in this country during the past two years, the condition is comparatively local, so far as the world is concerned.

Appeals began to come to Professor Willis L. Moore, chief of the weather bureau, as early as last March, from farmers desiring an explanation of the threatened drought. By the end of the crop season the bureau was flooded with requests for information. Weather bureau reports showed an interesting state of affairs. Moorhead, Minn., in the center of the spring wheat region, revealed a total rainfall, in May, June and July, of only

two and a half inches, as compared with a normal rainfall of nearly eleven inches. It was almost unheard of. Conditions were nearly as bad in northern California and Oregon. Florida had a siege of it. Wyoming, ordinarily dry, the past season resembled the Desert of Sahara. Small reservoirs, used in the late-summer irrigation of the alfalfa crops, this year were completely dried up and at several of the points not even the first cutting amounted to anything. The timothy product climbed to a fabulous price before the winter feeding time. Thousands of sheep were removed from their customary ranges to pasture in neighboring states although even there drought conditions were nearly as bad.

There was shortage of reservoir water in Colorado by early summer and a resultant lively scramble among farmers to bring their crops to maturity with the small supply at hand. There was practically no rainfall during July and early August in Colorado. There was a big movement to get live stock to Chicago and Kansas City markets from Western territory. Hay was selling as high as twenty dollars per ton in Colorado in October. For that matter, hay throughout the entire country was bringing twelve dollars and up the last month in the year, as against ten dollars and fifty cents twelve months before and nine dollars in 1908.

The New England and the greater part of the Atlantic States came forward with an amazingly low report. Springs, wells and brooks, before that considered inexhaustible, failed entirely. Rivers supplying water power fell so low that in some places mills were obliged to suspend operations or rely upon their auxiliary steam plants. In cities of such size as Salem, in Massachusetts, water boards have asked residents to use as little water as possible. In Athol every one was asked to cut down his daily consumption by one-half. This condition persisted in the cotton-region districts of the South throughout the entire summer. In the greater part of Texas and Oklahoma it had not been relieved by December.

The general drought was somewhat dispelled in the latter part of November and by the snowstorms in the early days of December. The latter were of the greatest benefit to the country, for they brought general rains and snows from the lower Missouri and middle Mississippi valleys

eastward to the Atlantic coast. Nevertheless, the water supply was still alarmingly low toward the first of the year.

Just what effect a continuation of this drought would have on next year's crops is a matter of serious conjecture. The soil conditions appear to be good. But it all hinges on the water supply of the country being brought to normal. It was said at the weather bureau that there is no reason to anticipate other than that the usual amount of rain will be received during the coming year and the drought relieved. In any case the dry spell of 1910 will go down as a record-breaker. It is doubtful if the country ever saw anything like such a deficit moisture period. If so, the government records fail to show it.—Leslie's Weekly.

Jacob Betz, of Rush county visited his parents, Mr. and Mrs. Peter Betz, Wednesday.

Mrs. Sam Wallman and daughter, of LaCrosse visited Wednesday here the guests of Mr. and Mrs. Henry Born.

A WOMAN'S BACK.

The Aches and Pains Will Disappear If the Advice of This Great Bend Citizen is Followed.

A woman's back has many aches and pains.

Most times 'tis the kidney's fault.

Backache is really kidney ache;

That's why Doan's Kidney Pills cure it.

Many Great Bend women know this.

Read what one has to say about it.

Mrs. J. T. Carlyle, 1217 Hubbard street, Great Bend, Kansas, says: "I gladly endorse Doan's Kidney Pills in return for the great benefit they brought me. Two months ago I suffered from backache and kidney complaint. I often had pains in my sides, extending as far as my shoulders and there was a distressing kidney weakness in evidence. Doan's Kidney Pills acted promptly and effectively and since taking them, I have had no further cause for complaint."

For sale by all dealers. Price 50 cents. Foster-Milburn Co., Buffalo, New York, sole agents for the United States.

Remember the name—Doan's—and take no other.

The DAIRY



BUTTER SPADE THE LATEST

Cuts Through Print Easily, No Matter How Hard It Is—Creamery Men Will Find It Handy.

When a knife is too dull to be of much use people are fond of referring to it as "too dull to cut butter." Whoever originated this remark evidently had small experience in cutting butter, for a good, cold, firm print is not so easily divided as most folk imagine. Warm butter may not have much consistency, but cold butter has. A Minnesota man has invented a butter spade which creamerymen and dealers will find much more effective than the long, thin-bladed knife they have been using. The spade is shown so plainly in the illustration that further description is unnecessary. It can be used either with the right or left hand and provides for a straight, downward movement, which



Butter Spade.

insures a more even cut from top to bottom than can be obtained with a knife. The blade is much stronger than the blade of an ordinary knife, too, and is not likely to wobble.

DAIRY COW GAINS IN VALUE

Present System of Test Records Responsible for Most of Recent Development in Industry.

(By B. H. RAWL, Chief of Dairy Division of Bureau of Animal Industry.)

There has been a wonderful advance in the quality of dairy cattle during the last few years.

The various breeds are improving and there are more big records now than ever before. Splendid records were made during the world's fair in Chicago but the succeeding generation of cows did much better at the St. Louis exposition. We have a number of cows today that can do better than the holders of the old time records that stood for years.

The present system of test records is the cause of most of the recent development. We have the ring show, where the animals are judged on appearance, and in addition there are the yearly records that tell the productive capacity of the cow. The cow of today is far superior to the animal of the same breed twenty or thirty years ago as her capacity and effectiveness are much greater. Without the use of the accurate records many a dairyman would be deceived regarding the value of his cows. By means of records we are able to weed out the poorer individuals of the different breeds and the result is becoming apparent with remarkable rapidity.

One of the most important features of modern dairying is the building up of herds by crossing with highly productive stock. Grade cows, or those that are partly of high class stock, are exceedingly valuable as producers. The improvement in dairy conditions has been gradual, but not nearly as rapid as we wish. Some of the dairymen have not taken advantage of what is now within easy reach. There is still much room for improvement in general conditions.

"DOPE" FED TO DAIRY COWS

Manufacturers of Prepared Feeds Should Be Compelled to Give Amount of Grain in Mixture.

(By M. W. KELLEY.)

The mixing of prepared dairy feeds is becoming about like the mixing of commercial fertilizers—simply the amount of protein and carbohydrates required by the analysis, with any old kind of material used for fillers. It is time that we had laws compelling the manufacturers of these prepared dopes to explain just how much of each kind of grain entered into the mixture. There is something radically wrong when a large milling company will pay \$18 a ton for oat hulls and \$20 a ton for the dust that comes off oats to use in preparing a feed mixture that farmers are paying \$30 a ton for. Where I live I can see every day tons of oat hulls and dust being hauled to a factory where carloads of these mixed feeds are being prepared. Is it any wonder that we have sick animals and that new diseases are constantly cropping out when we feed these poison dopes?



THE KEY NOTE

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Ball Bearing Type Bar
Column Finder and Paragrapher
Decimal Tabulator
Visible Writing
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