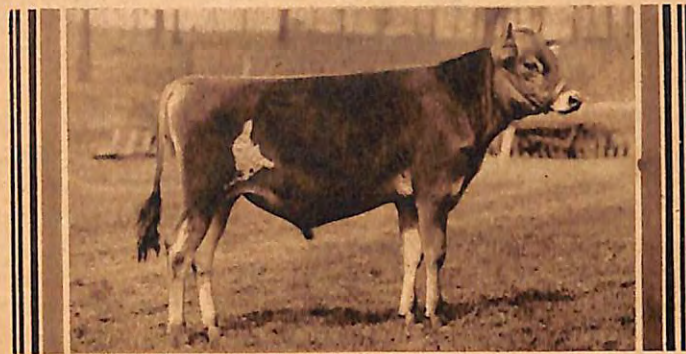




Raise *Thrifty*
QUALITY
CALVES

THRIFTY QUALITY CALVES



A GOOD herd sire brings profits on dairy farms. This is Volunteer's Noble Dreamer, No. 316645, bred by the Clearview Farms, J. S. Campbell, Jr., owner, at Butler, Pa., where all calves are raised on Globe Calf Meal by the method outlined in this book. This calf was recently purchased by Philip Wior, Bonham, Texas.

“**T**HE MAN who raises his calves has some prospect of greater success in each succeeding year for he has an opportunity to improve and enlarge his herd by the only sure and safe method, namely, through the use of a good pure-bred sire and the careful rearing of the calves.”

—Iowa Agr. Exp. St. Bul.—91.

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THE ALBERT DICKINSON COMPANY

Manufacturers of Globe Feeds

MINNEAPOLIS, MINN.



CHICAGO, ILL.

The PROBLEM of MILK SHIPPERS



Five daughters of Bowlinas Sultan (208581) at Clearview Farms, Butler, Pennsylvania.

ON FARMS selling whole milk, calf raising has been a serious problem. The market value of milk under these conditions is so high as to prohibit feeding it to the calf. Feeding skim milk is impracticable because of the inconvenience of separating the milk and marketing both milk and cream. Globe Calf Meal has solved the problem, and it is now possible for all dairymen to raise their own heifers at little cost. The amount of milk required for each calf is reduced to less than two hundred pounds when feeding Globe Calf

Meal and with careful attention to feeding, above-normal growth and development may be obtained.

Do not pass up the opportunity to raise good calves simply because you are shipping whole milk. Let them grow up on Globe Calf Meal, a tried and proven whole milk substitute for calves. The cost of this method is only one quarter the cost of raising calves on milk. Each calf can be raised at a saving in cost of twenty to twenty-five dollars. Remember, it will pay you to rear calves when it can be done cheaply and by a method which will insure regular and rapid growth. Globe Calf Meal is easy to feed. It is not necessary to cook or boil it or even to let it soak before feeding. Simply mix it in hot or warm water and feed at blood temperature. Complete feeding directions are in every sack.

CALF RAISING



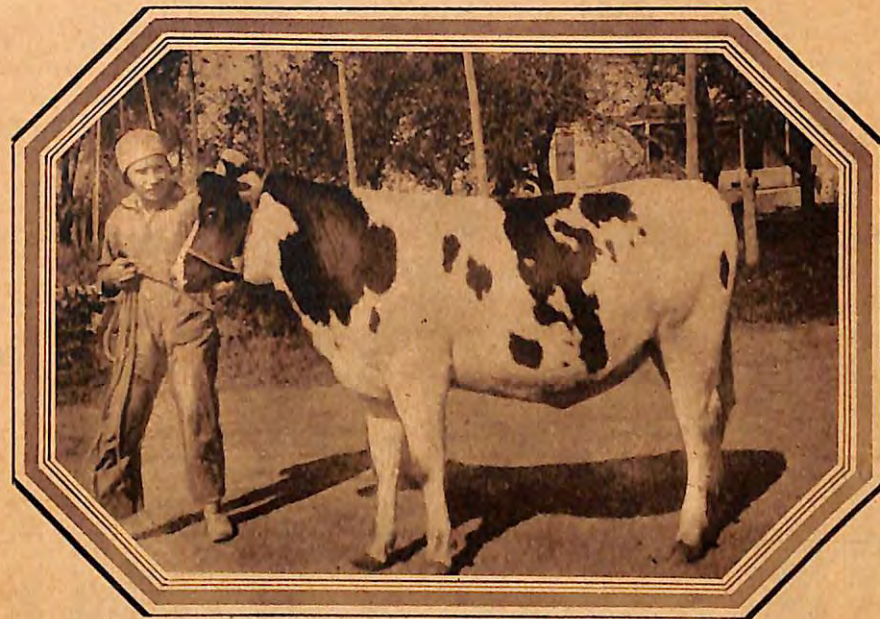
NO SYSTEM of dairy herd management is complete unless it includes a definite, practical and economical method of calf raising. Success and permanency in the dairy business rests largely in herd improvement—building up the quality and productive capacity of the herd.

Filling the vacancies which occur in a good herd of milk cows is one of the big problems of dairying. For various reasons, each year a certain number of animals must be replaced. Some die, others are butchered as culls; some become non-breeders; and others cease to be producers by accident or ailment. The average age of dairy cows in the United States is six years; and as they are two years old before beginning to produce, the average productive life of dairy cows is only four years. Thus, it is apparent that a twenty-five percent annual replacement is taking place. A dairy herd of twenty cows needs four or five new members each year.

RAISED STOCK VERSUS SPRINGERS

ONE PLAN of making replacements in the herd is to purchase springers. Even the most careful cow buyer will admit that this is much of a hit or miss proposition. Experience shows that no improvement of the herd can be accomplished under this plan. Seldom, if ever, does the purchaser know the capability of the springer as a milk producer; and many a heifer looks mighty good in the bloom before freshening, only to be a great disappointment later on. Furthermore, it is practically impossible to follow the plan of purchasing springers and keep the herd free from disease. Each new cow is a risk, and it is impossible to contend with the great tangle of cow diseases and at the same time produce milk profitably.

The other plan of making herd replacements is for the farmer to raise his own heifer calves from the best cows in his herd. The producing and reproducing ability of each cow in the herd is known; and with the use of a good pure bred sire, continued improvement of production and type is made possible. This is the safe and sure method of herd replacement and herd improvement. The argument levelled against this plan is that the cost of raising a heifer up to producing age has been greater than the cost of a purchased springer. This is true in cases where the calves are raised on milk, but the argument has little weight left when it is considered that calves may be successfully raised on a milk substitute at one-third the cost of milk feeding. This milk substitute is **Globe Calf Meal**, which produces equal growth and thrift to milk, so that there is now left no logical reason for any dairyman not undertaking the safest, most profitable method of herd replacement and the surest method of herd improvement.



Valders Root and Dairy Maid, prize winning Globe fed heifer, owned by his father Maurice Root of Antigo, Wis.

SELECTING THE CALVES TO BE RAISED

ONLY THE normal, vigorous, healthy heifer calves from the best cows in the herd should be raised. Furthermore, no dairy calf is worthy of being raised unless it is sired by a pure-bred bull. All under-sized, weak or abnormal calves should be discarded. A healthy calf is easily raised, and has very little chance of becoming a weakling. Average birth weights of normal healthy calves of various breeds are as follows:

Holstein	80-90 lbs.	Guernsey	60-70 lbs.
Ayrshire	65-75 lbs.	Jersey	50-60 lbs.

Bull calves are usually heavier than heifer calves, and calves from mature cows are slightly heavier than those from heifers.

CARE AT CALVING TIME

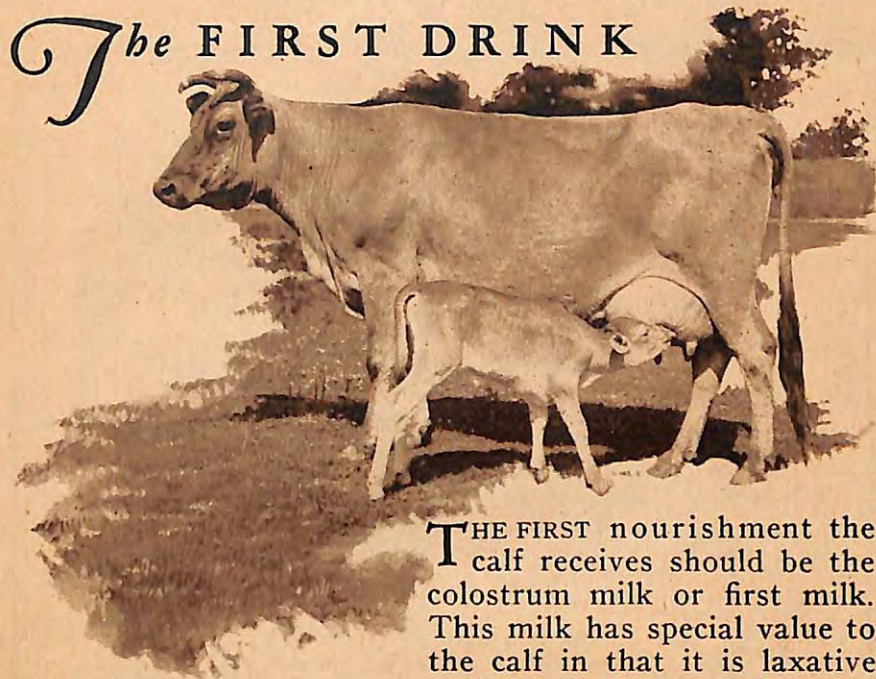
THE CALF should be born in a clean, disinfected, well-bedded box stall in order to insure its health right from the start. The stall should be thoroughly cleaned out, sprayed with dip and bedded down with clean straw.

As soon as the calf is dropped, remove mucus and membrane from the nose and mouth to start easy breathing. Then disinfect the navel with tincture of Iodine and sprinkle it with powdered alum to dry it up and make it a less favorable site for infection. This precaution is necessary to prevent white scours, a disease which usually proves fatal to young calves.



Only vigorous, healthy heifer calves from your best cows should be raised.

The FIRST DRINK



THE FIRST nourishment the calf receives should be the colostrum milk or first milk. This milk has special value to the calf in that it is laxative and helps to remove the meconium from the intestinal tract and starts the digestive processes. Also, it imparts to the calf certain anti-bodies which give it resistance to disease. A good precaution is to have the cow's udder made clean for the calf by washing off with luke warm water. If the calf is not up and at it within about half an hour, it should be assisted in getting its first meal.

The calf should remain with the dam for the first forty-eight hours, by which time it should be well up on its feet and away to a good start. The opportunity for sucking is good for both the calf and the cow's udder. Nothing is gained by removing the calf at birth; and if left longer, it is more difficult to teach the calf to drink and the separation is more disturbing to the cow.

Calf pens that are clean, light, well bedded, and free from drafts are a great advantage to the well being of the calf.

Mix

1 Part Globe Calf Meal with 8 Parts Water.



For measuring the correct amounts of Globe Calf Meal and water, the following table will be useful:

- 1 tablespoonful Globe Calf Meal weighs 1 ounce.
- 4 tablespoonfuls Globe Calf Meal weighs $\frac{1}{4}$ pound.
- 3 cupfuls Globe Calf Meal weighs 1 pound.
- 1 gallon of water weighs 8 pounds.
- 1 quart of water weighs 2 pounds.
- 1 pint of water weighs 1 pound.



MIX 1 TO 8

3 cups or 1 lb. of Globe Calf Meal with 1 gallon of water.



4 tablespoonfuls of Globe Calf Meal with 1 quart of water.



1 tablespoonful of Globe Calf Meal with 1 cupful of water.

Mixing Globe Calf Meal in this manner, a Holstein Calf will require 150 lbs. to four months of age (Jerseys, Guernseys, Ayrshires proportionately less), 200 lbs. to six months of age.

The GLOBE METHOD of CALF FEEDING



*Mrs. Axel Anderson of Afton, Minn.
feeding Globe Calf Meal.*

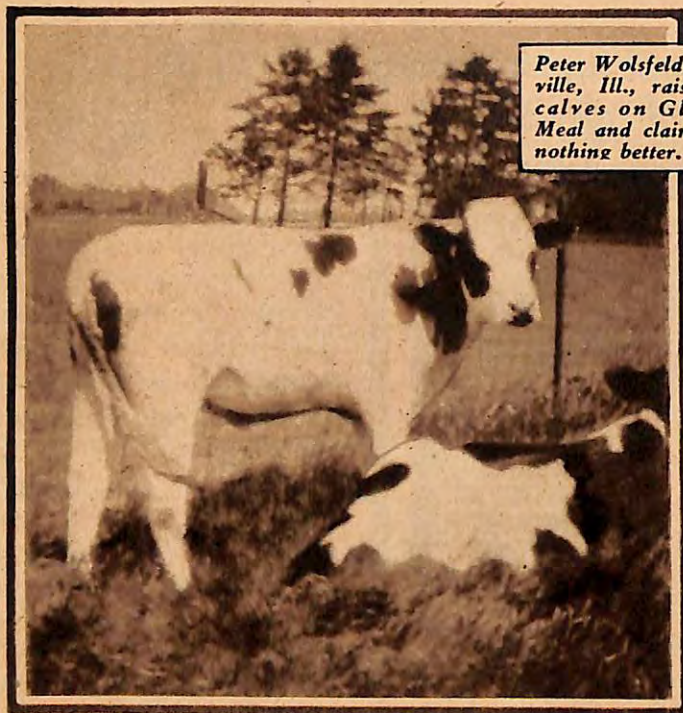
THIS PLAN of calf raising has been developed to produce thrifty, well developed calves at a minimum cost and using the least possible amount of milk. The success of the plan is attested to by hundreds of successful dairymen on whose farms calf rearing is a major project in relation to the future profits from the herd. The plan is simple and practical.

The first Two Weeks—

Start the calf on whole milk, feeding five to eight pounds per day divided into three feedings. The exact amount should be determined by the size of the calf, feeding one pound per day for each ten pounds of live weight. Increases in the amount of milk should be made gradually at the

rate of one half pound every other day.

During the second week, mix a small handful of Globe Calf Meal into a thin paste with warm water and add to each feeding of milk.



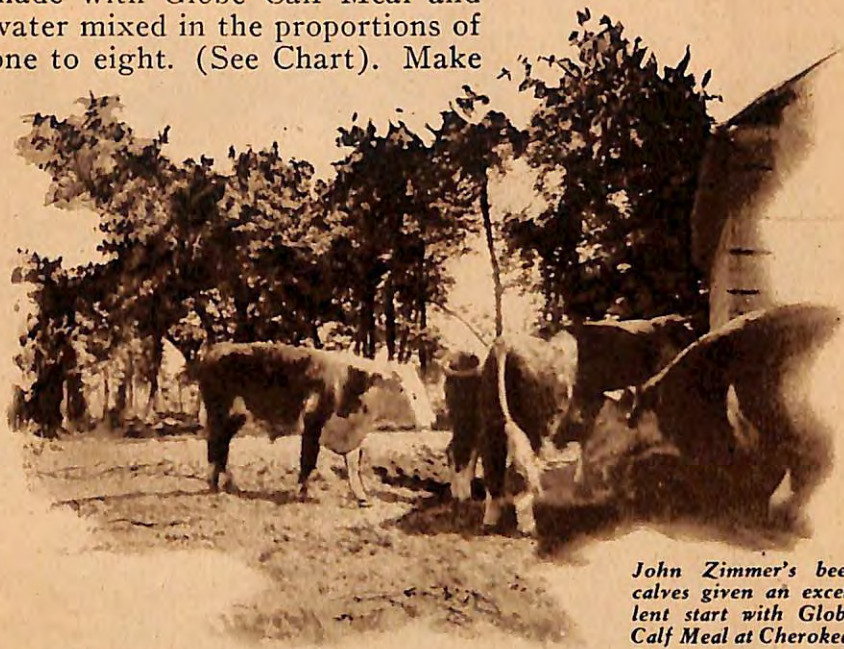
Peter Wolsfeld of Naperville, Ill., raises all his calves on Globe Calf Meal and claims there is nothing better.

Feed Consumption Days and Weeks

AGE OF CALF	AMOUNT DAILY	AMOUNT WEEKLY
2nd Week	3 Oz. Daily	1¼ lb. Week
3rd Week	6 Oz. Daily	2½ lb. Week
4th Week	12 Oz. Daily	5¼ lb. Week
5th Week	16 Oz. Daily	7 lb. Week
6th to 8th Week	1¼ lb. Daily	8¾ lb. Week
8th to 10th Week	1½ lb. Daily	10½ lb. Week
10th to 12th Week	1¾ lb. Daily	12½ lb. Week
12th to 16th Week	2 lbs. Daily	14 lb. Week

It is seldom necessary or advisable to increase beyond 2 lbs. per day. For best results Globe Calf Meal should be fed up to at least six months of age.

The Third Week—The calf is now getting around eight to ten pounds of milk daily, depending on its size. Commence feeding twice daily instead of three times. We have now reached the limit of milk feeding, and further increases in quantity should be made with Globe Calf Milk, which is made with Globe Calf Meal and water mixed in the proportions of one to eight. (See Chart). Make



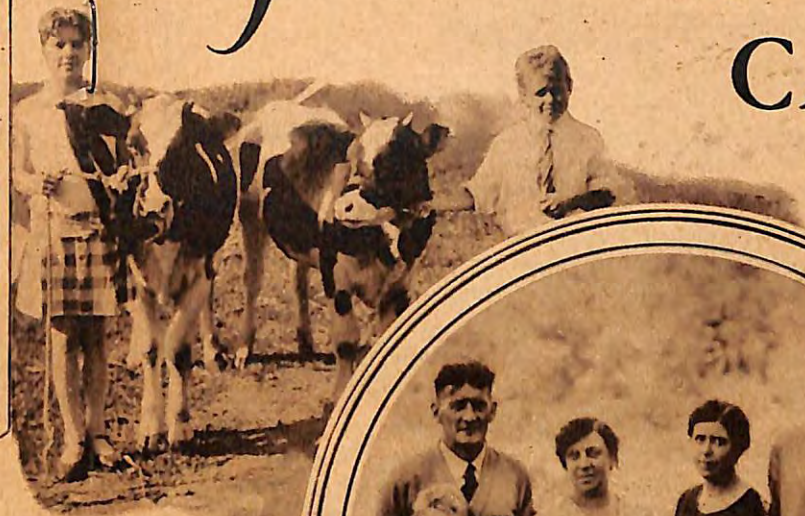
John Zimmer's beef calves given an excellent start with Globe Calf Meal at Cherokee, Iowa.

the first increase now by adding a tablespoonful of Globe Calf Meal mixed with a cup of water to each feeding of milk. Towards the end of the third week, add two tablespoonfuls of Globe Calf Meal mixed with two cups (one pint) of water to each feeding of milk.

The Fourth Week—We are now ready to remove the milk altogether from the ration, and it is discontinued at the rate of one pound daily until entirely removed. As the milk is decreased, the Globe Calf Milk is increased, one pound of milk being replaced by the addition of one tablespoonful of Globe Calf Meal mixed with a cupful of water to each feeding.

THRIFTY, QUALITY CALVES

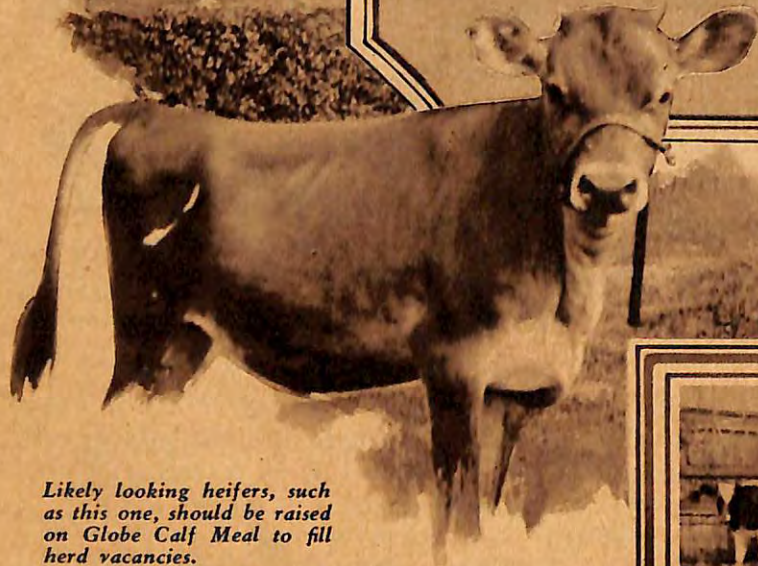
William H. McAdoo, Jr., of Ohio, and his calf raised on Globe Calf Meal.



Betty Maxwell, of Moundsville, W. Va., and her prize calf. At right, Edward Maxwell, her cousin, and the calf his uncle gave him.

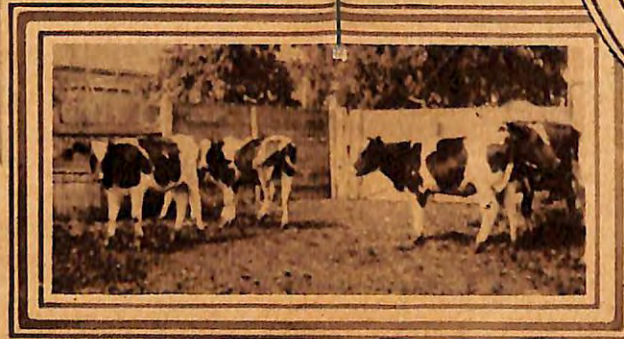


Two "Globe" families of Moundsville, W. Va. At extreme right, C. R. Maxwell, who sells Globe Feeds, and Mrs. Maxwell. At extreme left, J. L. Maxwell, who uses Globe Feeds, and Mrs. J. L. Maxwell. Edward, son of C. R., and Betty, daughter of J. L. are in front.



Likely looking heifers, such as this one, should be raised on Globe Calf Meal to fill herd vacancies.

Another group of Globe-fed calves from Ed. Ulrich's herd at Oshkosh, Wis.



MINERALS IN THEIR RELATION TO GROWTH

MOST dairymen know that their calves require a certain amount of mineral. The amount of the various kinds however cause many to stumble and feed incorrectly.

Roughages and concentrates contain a certain amount of each of the minerals necessary to secure proper growth and development but in all cases the amount is insufficient.

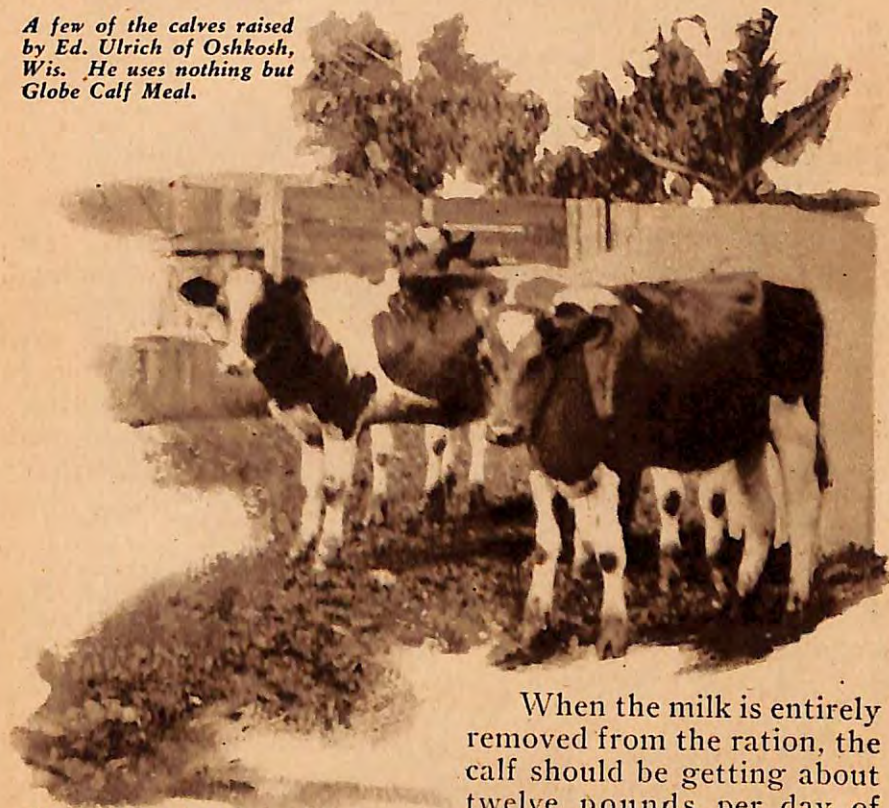
All calves require salt as the chlorine content is necessary. Salt forms Hydrochloric acid in the stomach which is essential for proper digestion.

There are hundreds of calves suffering from goitre at the present time. Just what causes this is not known. We do know that on the Atlantic and Pacific coasts less trouble occurs from this than in the midwest because of the fact that the coast plants contain more Iodine. As a precaution and a necessity Iodized Salt should be incorporated in the Calf Ration.

Should we feed Lime and Phosphorous? Most feeders have no way of knowing the amounts of Lime and Phosphorous contained in the feed they have available. Much Lime and Phosphorous are required by the growing calf for the development of bone, hair, hide and body tissue. It is true that in certain areas the roughages of clover and alfalfa are fairly high in Lime; on the whole however nothing should be overlooked in providing a ration which takes care of every requirement of the growing calf.

You will note from the diagram on page 20 Globe Calf Meal has taken care of the Mineral requirements of the growing calf by incorporating Iodized Salt, calcium carbonate, steamed bone-meal, and common salt in sufficient quantities to insure proper growth and development of your calves.

A few of the calves raised by Ed. Ulrich of Oshkosh, Wis. He uses nothing but Globe Calf Meal.



When the milk is entirely removed from the ration, the calf should be getting about twelve pounds per day of

Globe Calf Milk (1½ lbs. of the dry meal).

After the First Month—Increase the Globe Calf Meal until feeding about two pounds daily at the end of the second month. It is seldom necessary or advisable to increase beyond this amount. Towards the end of the third month the pail feeding may be gradually replaced with the feeding of a corresponding amount of Globe Calf Meal in dry form. At four months of age, the calf is well started; and Globe Calf Meal may be discontinued, but when Globe Calf Meal is continued in the ration up to six months of age, the owner is more than repaid by the additional growth, development, and bloom of the calf.

HAY

CLEAN, BRIGHT, leafy alfalfa, Clover, or Alsike hay should be kept before the calves after three weeks of age. Dusty or moldy hay should never be offered to calves. The hay should never be left in the racks too long as they will not consume hay which has been once gone over.

DRY GRAIN

DRY GRAIN feeding should commence at three weeks of age, a small handful being offered after the pail feeding. Use a mixture of equal parts of ground corn, oats, and Globe Calf Meal. The oats may be whole or coarse ground. At six weeks of age the calf will be taking about one half pound of dry grain daily, and at two months about three quarter pounds daily. It is seldom necessary to increase beyond two pounds daily up to six months of age. Feed only what they will clean up, and keep the grain boxes clean.

WATER

FRESH, CLEAN water is essential to normal growth and development. Water should be before the calf at all times because if only offered once a day may tend to cause a "pot belly" on the calf which is very undesirable. Such a "pot bellied" calf does not develop the scale nor the frame necessary for a productive dairy machine.

SALT

AFTER THREE weeks of age, salt should be supplied to the calves in the form of block salt to which they have free access.

SILAGE

A SMALL AMOUNT of succulent, palatable silage, free from mold and coarse stems, may be fed to the calf after two months of age. Great care must be exercised in feeding silage to exclude frozen, spoiled, or moldy chunks and to keep the manger or boxes free of any refuse silage. The quantity should be very limited and only what they will clean up quickly at one feeding. If scours are noted after silage is added to the ration, it should be discontinued.



Dehorning

Calves should be dehorned before they are a month old. It is a simple task. Clip the hair around the button and rub with caustic potash until the spot which should be about as big as a dime is red. Do not allow it to bleed. Sprinkle a little powdered alum over the spot to assist in the healing over the button. If the horns have been allowed to develop so as to protrude a little, rub around the base of the horn until it is seared white. Usually one application will be sufficient to loosen the horns so that they will drop off.

PASTURE

MANY DAIRYMEN have a tendency to rely too much on pasture for young calves under six months of age. The spring calves derive no value from the pasture during their first summer. During the warm summer weather, calves on pasture are exposed to severe heat and flies which materially reduce thrift. The calves may be better protected from these enemies in a good barn or in a small paddock well shaded by trees.

WHEN RAISING CALVES — REMEMBER

Never overfeed—Overfeeding is one of the common causes of trouble in calf-raising. It causes an overexertion of the intestinal tract and invariably results in scours. A good, thrifty calf should always be kept a bit hungry, up and coming for each meal. One pound of milk for each ten pounds of the calf is a safe guide to follow. The maintenance of thrift with regular, steady growth is the object in view, and overfeeding will give the calf a setback from which it will take some time to recover. It is recommended that the milk scale be used in all calf feeding operations so that accuracy in the feeding of the calf replaces guess work and prevents either overfeeding or underfeeding. Underfeeding, of course, retards the growth of the calf and, therefore, is a costly procedure.

Cleanliness—An important factor in caring for calves is cleanliness, both the utensils out of which it feeds and of the calf's quarters. Pails used for calf feeding should be washed and scalded after use and not allowed to remain in the calf pens. The calf pens should be cleaned and disinfected before the calves enter and should be kept clean and bedded down with dry, clean straw. Attention to the matter of cleanliness is an important preventative of scours and induces thrifty growth.

Regularity—Regularity in time of feeding is also important, as irregularity will cause scours the same as overfeeding or uncleanliness. Regularity in the temperature in which the

milk or gruel is fed and regularity of the amount of each feeding are equally important. The milk or gruel should always be at body temperature so that it feels neither warm nor cold to the hand.

What IS GLOBE CALF MEAL?

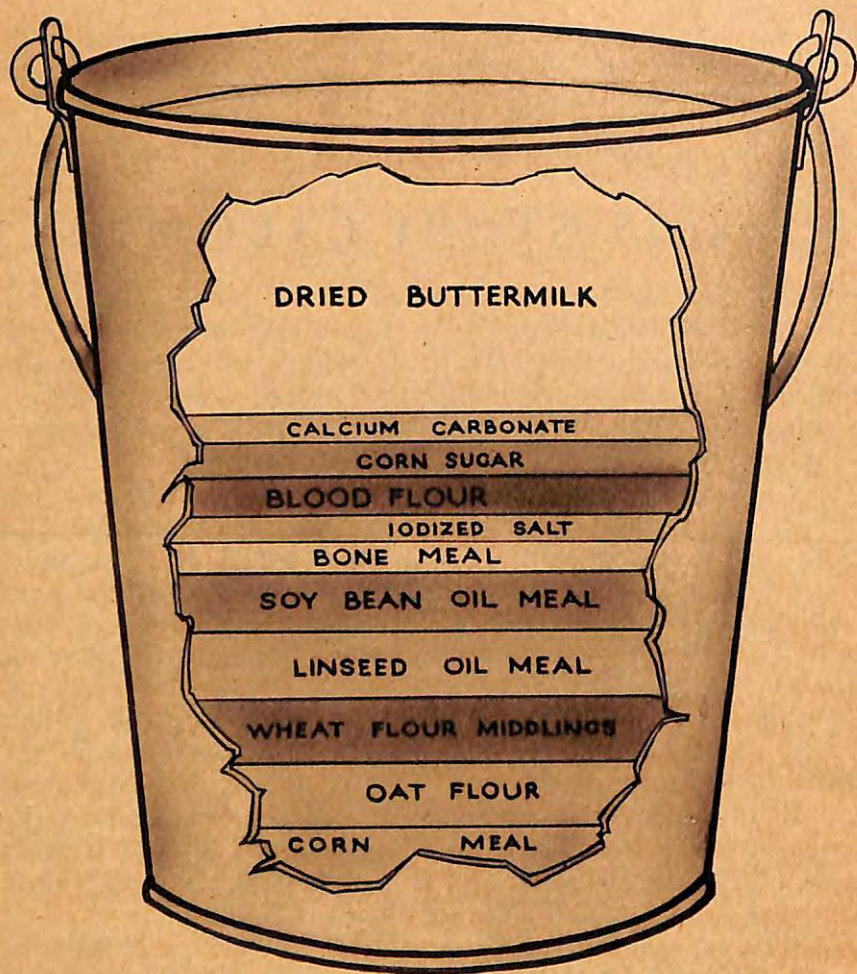
GLOBE CALF MEAL was developed within recent years as a result of actual feeding trials and experiments to produce a successful milk substitute which would reduce the cost of raising calves. It is different in many ways from calf meals which have been used by farmers in times past as supplements to skim milk.

Globe Calf Meal has been made to approximate as closely as possible the physical and nutritive properties of milk. This means that it is highly palatable, digestible, contains a minimum of fiber, and when water is added goes into suspension or solution. The nutrients are properly balanced and the right amounts of calcium and phosphorous for bone growth are included.

The base of Globe Calf Meal is dried buttermilk, which is the secret of its success. This product supplies all the milk nutrients with the exception of fat, and it is around the all important milk proteins and milk minerals that the balance of the ration is built. Therefore, Globe Calf Meal is to a large degree milk, and it is milk plus. The nutrients added supplement and enhance the milk nutrients.

The palatability of Globe Calf Meal comes from corn sugar, an easily digested carbohydrate food. No drugs or condiments are used to impart an artificial palatability, or to impair digestion and thrift.

The high digestibility of Globe Calf Meal results from the careful selection of ingredients and the maintenance of a very low fiber content. No cottonseed meal is used in Globe Calf Meal as it depresses both palatability and digestibility and retards thrift.



A chart showing the high quality ingredients used in the manufacture of Globe Calf Meal, the ideal milk substitute.


The physical properties of Globe Calf Meal are such that when water is added the meal goes completely into suspension or solution; it will remain that way for a considerable length of time to permit the feeding of the calf without danger of a heavy sediment in the bottom of the pail.

WHY YOU SHOULD RAISE CALVES ON GLOBE CALF MEAL

ECONOMICAL —Excellent calves can be raised at one-fourth the cost of milk feeding. One pound of Globe Calf Meal, worth five or six cents, takes the place of nine pounds of milk.

Safe and Convenient—There is no danger in feeding Globe Calf Meal and there is no extra trouble or fuss connected with its feeding.

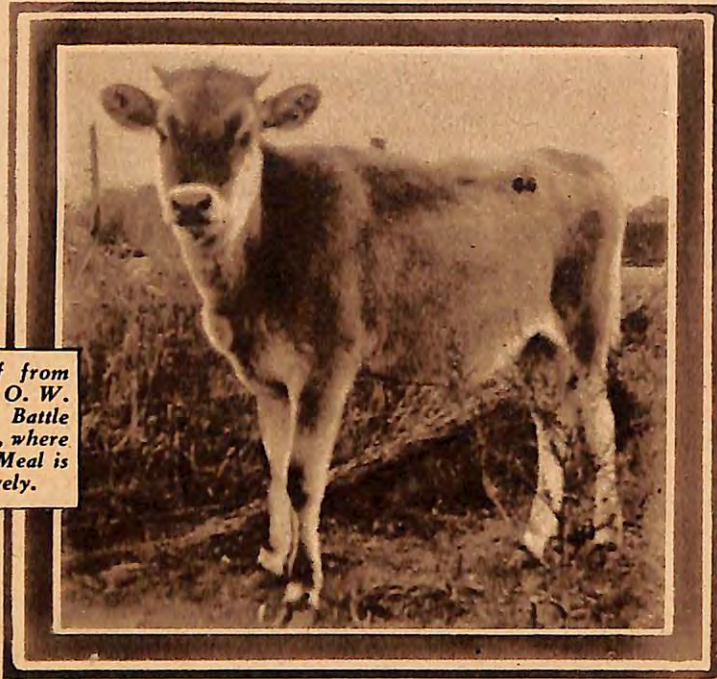
Thrifty Growth—Calves raised on Globe Calf Meal show outstanding development and thrift. When the Globe plan of calf feeding is carefully followed, even better than normal growth of calves is obtained.



It's Easy to Raise Calves

THE heifer calves from your best cows are your best bet for increasing your herd of cows. You know their ancestry. You know they will make good cows. You know they are free from contagious abortion and tuberculosis. And you know you can raise them by feeding them plenty of milk. But do you know that you can raise them just as easily and at one-fourth the cost by feeding them on Globe Calf Meal instead of milk?

Thrifty calf from the herd of O. W. Nelson of Battle Lake, Minn., where Globe Calf Meal is used exclusively.



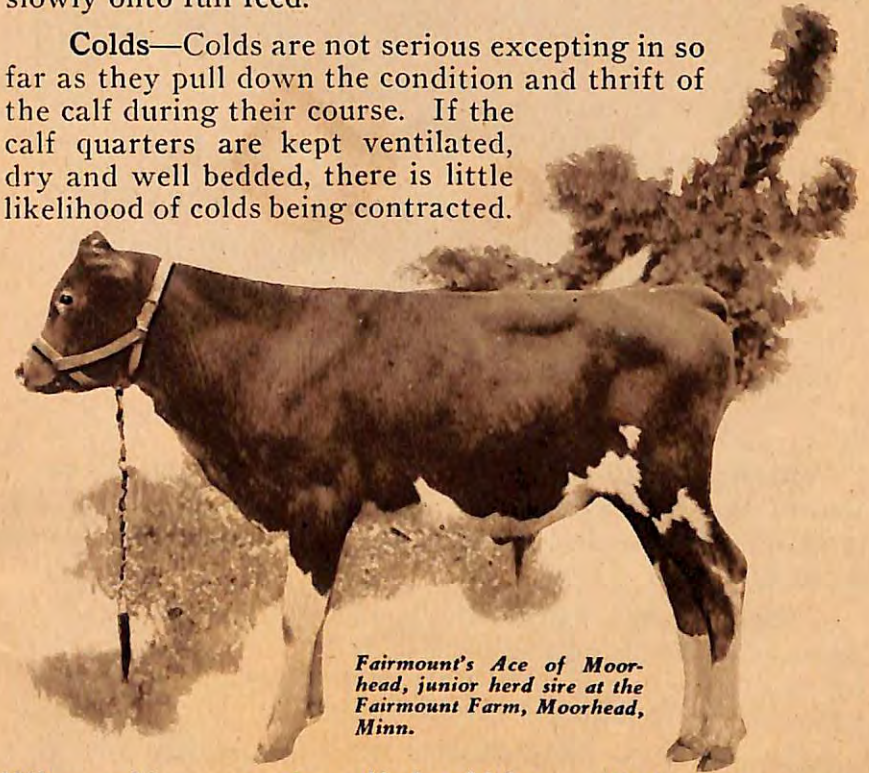
COMMON DISEASES OF CALVES

PREVENTION is undoubtedly the best recommendation for calf troubles, and the feeding and management program as set out in this book will greatly reduce the possibilities of trouble. Troubles do occur, however, and we offer here-with a few suggestions relative to some of the common diseases of calves.

Constipation—This trouble is usually a result of improper feeding. It is corrected by giving a dose of castor oil, from one to three ounces, depending on the size and age of the calf. In the case of retained meconium in the newly born calf, the best treatment is an enema of warm water and salt (one-half teaspoonful of salt to a quart of water). The cause should be removed by a change in the ration and by the feeding of more roughage.

Scours—Common scours is of frequent occurrence in calves and is prevented by proper care and feeding. It is caused by overfeeding, dirty utensils, unsanitary quarters, irregularity of feeding, milk too rich in fat, fermented or partially soured milk. The treatment consists in first reducing the ration by one half to relieve the digestive system. Administration of one to three ounces of castor oil will clean out the intestinal tract and correct the condition. When the trouble is under control, the calf should be brought back slowly onto full feed.

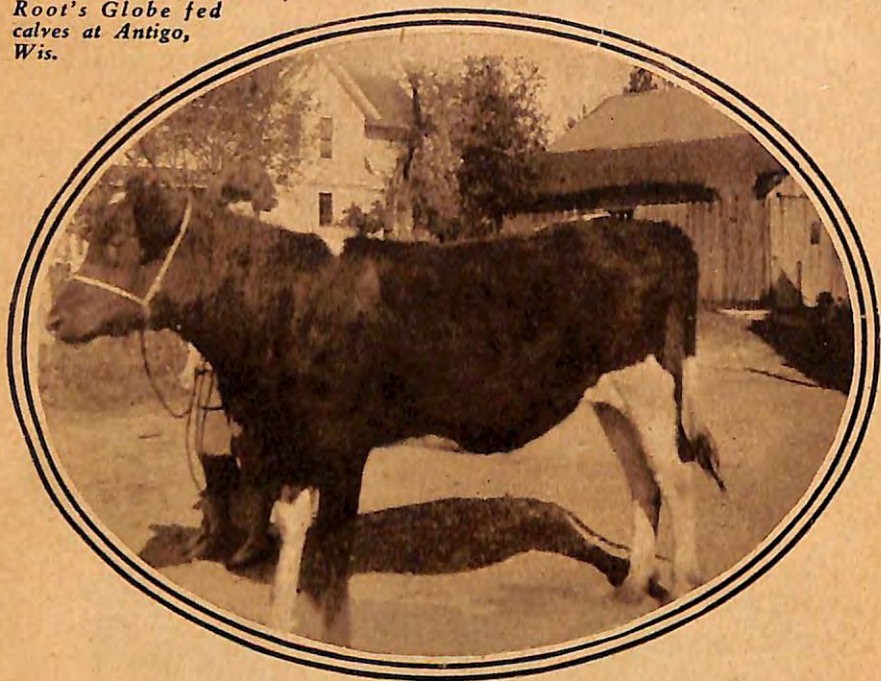
Colds—Colds are not serious excepting in so far as they pull down the condition and thrift of the calf during their course. If the calf quarters are kept ventilated, dry and well bedded, there is little likelihood of colds being contracted.



Fairmount's Ace of Moorhead, junior herd sire at the Fairmount Farm, Moorhead, Minn.

When colds occur, the calf should have a little extra attention, be kept warm by blanketing if necessary, kept free from drafts, and have the drinking water raised to lukewarm temperature.

*Another one of Maurice
Root's Globe fed
calves at Antigo,
Wis.*



MANGE

Mange—This trouble is not uncommon and causes a loss of hair from the neck or tail head or from the body in general. The treatment is to wash with coal tar dip at intervals of ten days.

Ring Worm—Ring worm is a fungus growth which appears about the head and neck of calves. Remove the crust by washing with soap and water and a hard brush and then paint the spots with tincture of Iodine.

Lice—Calves infected with lice are unthrifty and poor doers. Lice are prevented by maintaining cleanliness in the barns and stables. Treatment is simple and consists of washing or spraying the animals with a good coal tar dip, repeated after two weeks.

DICKINSON'S

