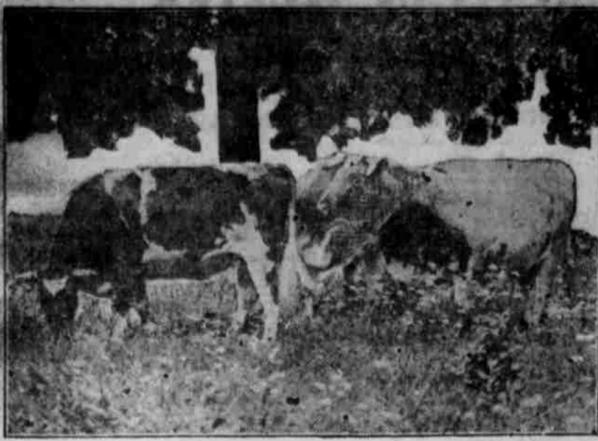


COST OF GROWING A CALF TO ONE YEAR



SHORTHORN COWS ON OKLAHOMA FARM.

(By PROF. JAMES WILSON, South Dakota Agricultural College.)

Breeders of Shorthorn cattle should be interested in the cost of producing a Shorthorn bull to the age of twelve months. Of course this varies in different localities and with different breeders, but having produced hundreds of purebred calves, I appreciate the fact that some do not care to have their twelve months' old calves as large or as heavy as this one was, but for early maturity the calves must be fed. I know of no better place to crib grain than in purebred Shorthorn calves—even if it does cost two and three cents a pound.

Interested in Cost.

A few years ago I was interested in knowing how much it actually cost the state to produce a bull at twelve months of age at the pace we were going, so I selected a calf that was ten days old and weighed him for the trial. A daily record was kept of his feed, also that of his mother, and he weighed every 30 days. He received just ordinary attention, no more than hundreds of bulls that I have fed of this breed under similar conditions. This calf was born December 7, 1912. He received his mother's milk (no nurse cows; F would not give much for the cow that cannot nurse her own calf), and because of his age was not allowed to run with her and the remainder of the herd when she was turned on grass, May 16, the following year. The mother is a pure Scotch cow of less than medium size and only an average milk producer. Bull calves of this age do not do well when turned with the herd in the spring to fight flies and worry all summer. Grazing in the evening would have been all right for this calf, but not having a suitable pasture he was kept in the yard day and night, and the expense of growing is probably a few dollars more than it would have been had we had a good pasture and several other bulls to have turned out with him in the evening after he was fed his grain ration.

Attracted Attention.

There was a "something" about this bull that attracted the attention of everyone who saw him. His type as Shorthorn, his size for his age, his character as a bull, his solid dark red color, all had a bearing. When calves of this age have great big thick horns and the horns have been trimmed or a wee bit sawed off the ends it is evidence that the calf has been neglected. Probably he has lost his milkfat and an effort is being made to put it back with grain.

The Shorthorn is the most popular breed of cattle in the United States today. The popularity must be credited to the fact that as a breed it comes nearer filling the dual-purpose capacity than any other. The cows are fairly good milkers, and when put on the market make good beef. Now I do not claim this breed in its entirety is as good for milk production as a breed developed along strictly dairy lines or as food for beef production as a breed developed solely along beef lines, but some excel in beef and some excel in milk.

Milk for Calf.

When this calf was ten days old he weighed 122 pounds, not an extra large weight for a calf of the breed. At this time the mother weighed 1,190 pounds. It was our intention to feed her a ration out of which she could make milk for the calf and maintain her own weight, as she was not an extra fat cow. We made a mixture of 200 pounds of oats, 50 pounds of corn, 25 pounds of bran and one-tenth as much of the total by weight of oilmeal. The idea of adding the bran was to compel more thorough mastication of the grain before swallowing and to furnish protein and mineral matter. In addition to this ration she was fed ordinary wild hay. At this time the cow was on full feed, or 12 pounds of the mixture per day and all the hay she wanted. At the end of 30 days her grain ration was increased to 14 pounds of the mixture, and at the end of 60 days the two were eating 16 pounds, as the calf at this time had learned to eat grain with its mother. When the calf was eighty days old he was fed in a separate box, beginning with four pounds of the same mixture and gradually increasing, giving him all he would eat after he had sucked his mother.

Grain for Calf.

On May 16 the cow was turned to grass and was brought in morning and evening to nurse the calf. Her grain rations was gradually reduced and that of the calf increased. At this time the mother weighed 1,154 and the calf 551. The calf was now five months

old. The next month he was fed alfalfa hay in place of the wild hay, and on the eighteenth of July his grain ration was changed to one-third oats, two-thirds corn and one-tenth of meal by weight. On August 1 Bromus inermis hay was substituted for alfalfa hay (because of scarcity of alfalfa) and the calf at this time was eating 12 pounds of grain daily and what hay he wanted. He was continued on this ration until twelve months and ten days old, when he was eating 16 pounds of the mixture daily. At this time he weighed 1,068 pounds. I have fed calves that were heavier than this one for their ages, but they were from better milkers than this cow.

The following is a statement of the quantity of food actually consumed by the cow and calf until he was one year old. This is figured at ordinary prices for feed in the Northwest, and not wartime prices:

Oats, 79.9 bu., at 23c.....	\$18.37
Corn, 31.8 bu., at 35c.....	11.13
Oilmeal, 509 lbs., at 1 1/2c.....	9.18
Bran, 288 1/2 lbs., at 1c.....	2.38
Wild hay, 2.11 tons, at 80c.....	12.06
Alfalfa hay, .26 tons, at \$15.....	3.90
Bromus inermis hay, .6 tons, at \$5.....	3.00
Pasture for cow 7 months, at \$1.....	7.00

Total \$68.20

Gain of Calf by Months.

Month	Pounds.
First month	80
Second month	76
Third month	78
Fourth month	100
Fifth month	98
Sixth month	116
Seventh month	50
Eighth month	102
Ninth month	64
Tenth month	82
Eleventh month	48
Twelfth month	32

Total gain 979 Pounds.

Weight at beginning 122

Total weight at close 1,068

Average gain per month 81

Had I been fitting this calf for show purposes I would have added a good nurse cow and probably two, which would have increased the cost materially, but new milk is the best feed and I would have had a much heavier and fatter calf. Many will wonder whether it pays to even feed calves this way. At the close of the record keeping we were offered \$900 by several different parties for him and today he would have brought \$700 to \$1,000 and probably more at auction.

INCREASED VALUE OF MANURE

Field Tests Conducted at University of Missouri in Different Soils and Seasons.

Just what the farmer can pay for a ton of manure or for hauling and taking care of it varies with different conditions. For ten years the University of Missouri College of Agriculture has been investigating this question. Field tests have been made in 18 different parts of the state. Different soils, seasons, and kinds of manure have been included under ordinary methods of farming.

In practically all cases eight tons of manure to the acre was applied once in four years and plowed under before the corn crop. No manure was applied on the following crops of oats, wheat and clover, but the yields were all recorded. The increase in crop yields caused by the use of eight tons of manure per acre were as follows: 16 1/2 bushels of corn, 5 1/2 bushels of wheat, 4 bushels of oats, and about 7,000 pounds of hay. This is an average from 60 tests on corn and a somewhat less number on the other crops. Plowing these increases at normal prices they are worth about \$13, or about \$2 a ton for the eight tons of manure applied. With present prices, which are almost double those of normal times, manure is worth correspondingly more, or about \$4 a ton.

BEST FOR IMPROVING SOILS

Planting trees to cover crop of fields and to subsoil by deep roots.

Dr. W. E. Rouse's plan of improving soils is to plant a cover crop of weeds, grass, shrubs or trees and to subsoil by sending the roots down 1, 2, 3 or 4 feet, as the case may be, thus airing and enriching the subsoil without bringing it to the surface.

INCREASE IN WHEAT ACREAGE

Corn Yield in Kentucky is Estimated as Larger Than Last Year.

Frankfort, Ky., Oct. 15.—Wheat acreage for 1917-18 of 1,058,873 acres is the forecast of the October crop report, issued by Commissioner of Agriculture Mat S. Cohen, who estimates the acreage at 103 per cent. on reports so far received, as compared to 86 per cent. last year, when 884,000 acres were planted.

The corn yield this year is estimated at 723,979,803 bushels, or 30.9 bushels to the acre, 11 bushels more than last year. The final wheat estimate is 11.6 bushels to the acre.

Regiment of Indians.

A regiment of Oklahoma Indians may be one of the American fighting units in France. Some 350 or more drafted non-English-speaking Indians are to be transferred to the first Oklahoma National Guard, which already has a considerable number of Indians in its ranks, and it now is proposed that enough additional Indians from Oklahoma's quota of 800 be assigned to the same regiment to fill it to war strength.

Censorship of Some Papers.

Censorship of foreign language newspapers by the United States will begin today when all papers not having a special license will be required to submit translations of all articles regarding any allied government or this country to the postmaster before papers will be accepted for mailing.

Elevator Burned.

A Brooklyn elevator and nearly 700,000 bushels of grain were destroyed at a loss estimated at more than \$1,200,000. Reports of incendiarism were circulated and Fire Chief Kenlon said that the cause of the blaze would be rigidly investigated.

Plant in Russia Closes.

Petrograd, Oct. 15.—The Singer Sewing Machine company, an American concern has notified the war minister that it is closing its big factory at Podulsk, near Moscow. The factory employs 3,700 operatives. The suspension is due, according to the company, to the workmen's demands and the losses caused by war.

First Time in 52 Years.

For the first time since they were separated in 1865, the Northern and Southern Presbyterian Synods of Kentucky held a communion service together when they met to discuss educational matters in Louisville Thursday.

Ram Singh Still Held.

Ram Singh, the self-styled Hindoo Prince, who lectured here last spring and was arrested as a suspected spy in Louisville in the summer, has been released on that charge but turned over to the State on a charge of larceny, which he denies.

MRS. J. KENDALL



Mrs. J. Kendall, a prominent New York woman, in the garb she will wear in France, where she will direct a small army of chauffeurs engaged in transporting portable hangars to be used by American aviators in France. The work will be done under the supervision of the National League for Women's Service.

PURELY PERSONAL.

Mrs. W. T. Tandy has returned from a visit to her son, Lieut. Jack Tandy, at Quantico, Va.

Misses Annie Forbes and Addie Belle Gary have gone to Chicago. Miss Gary will continue her study of vocal music and Miss Forbes will take a course in art.

Miss Kathleen Perkins, who is in training at the Norton Memorial Infirmary, Louisville, to become a trained nurse, spent Saturday with her mother, Mrs. Ellen Perkins.

Miss Evelyn Perkins left for Washington, D. C., Saturday to accept a government position.

Mrs. Joe Day has returned from a visit to Owensboro, accompanied by Miss Josephine Day, who is her visitor.

Mrs. E. N. Fruit is visiting her son, Herbert Fruit, at Jellico, Tenn.

Carl Lander, accompanied by his mother, will leave this afternoon for El Paso, Texas, on a visit to Sam Lander, who is a member of the Hospital corps, stationed at that place for the present.

Mrs. Baylor Abernathy, of Greenwood, Miss., is visiting relatives here.

New Jeweler.

Mr. F. W. John, of Evansville, has accepted a position as watchmaker with R. C. Hardwick, the Jeweler, and has entered upon his duties. He takes the place vacated by Mr. Walter E. Howe, who will go into business for himself.

Odor.

Any substance that will not dissolve in water has an odor. It is the actual substance itself, floating in particles in the air, as in the case of light and sound. The damper a thing is the more powerful the odor it gives off. A pleasant proof of the fact can be had by walking in a garden after rain. It is the vapor of a liquid that smells and not the liquid in the mass itself.

IMPORTANT NOTICE!

On and after November 1st we will discontinue the use of Premium Trading Cards and will redeem all cards or fractions thereof if presented at our store on or before January 1st, 1918.



This does not apply to merchandise bought during October and paid for on or before November 10th.

C. R. CLARK & CO.

Incorporated

How to Buy a \$50 Liberty Loan Bond in Several Installments

Ask for an official application blank from the Federal Reserve bank or its agency in your community. Pay \$1 on signing application.

About Nov. 6 the government will notify you whether the bond has been allotted. If not, your deposit will be returned.

On Nov. 15 pay \$9 through the agency where the application was filed. On Dec. 15 pay \$20 and on Jan. 15 pay \$20 and the bond will be delivered to you.

Consult your local banker for details of installment payments.

NEW GOODS JUST RECEIVED

- Flaked Hominy,
- Grits Hominy,
- Mince Meat, Honey,
- Raisins, Egg Noodles,
- Maccaroni,
- Spaghetti, Etc., Etc.

Premium Store Tickets given with cash sales.

W. T. Cooper & Co.



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