

How to Produce More Milk at Less Expense; Feeding for Production

WINTER FEEDING SHOULD BE GIVEN EARLY ATTENTION

Feeding for Milk Production is Discussed by L. W. Wing, Jr., Oregon Agricultural School.

INTERESTING TABLES GIVEN

Grain Mixtures to Be Very High; Mill Run at \$42.50 Will Prove Most Economical Feed in End.

L. W. Wing, Jr.
With winter feeding almost here, the feed supply should be given immediate attention by dairymen. First, how should this be accomplished? A procedure that should give one a basis on which to work is as follows: Any ration should be divided into three parts and each one analyzed separately. They are succulence, roughage and concentrates.

SUCCULENT FEEDS
In the spring when there is an abundance of green grass the cows make excellent returns at the pail. Such a feed in the ration is a strong stimulant for an increase in consumption and digestion of feed followed by a greater milk flow. Further, there is not as much danger from the cow going off feed, when such a feed is in the ration. What do we have for winter feeding to take the place of this green grass? Under conditions in the northwestern part of the United States we may have either alfalfa, roots, kale or soaked beet pulp. Are you provided with one or more of these?

Cattle are especially adapted to convert the coarse plant materials of no value as human food into useful products. Further even if it were economical to feed concentrates alone to cows for their well being physically, it would not be advisable. Roughage best adapted and meeting the demands of the dairyman are hay from the legume plants. The most important of these found upon the markets of the northwestern states are red clover, oats and vetch and alfalfa.

CONCENTRATES
Concentrates should be thought of as feeding stuffs containing a large amount of nutrients as compared to roughage pound for pound and further are much lower in crude fiber. Examples of this class of feeds are oats, barley, milting byproducts, as mill run, bran, middlings, oil meal, cottonseed meal, soy bean meal, etc.

In order to answer this question one should first make a survey of what he has produced or has on hand. Then follow this by a study of market prices and conditions. After obtaining this information the next task is to decide upon the ration to use.

As an example, suppose one has a sufficient amount of either oat and vetch or corn ensilage or both, that he must purchase the greater portion of his hay or roughage and his grain concentrates.

The present market prices for different feeds are about as follows:

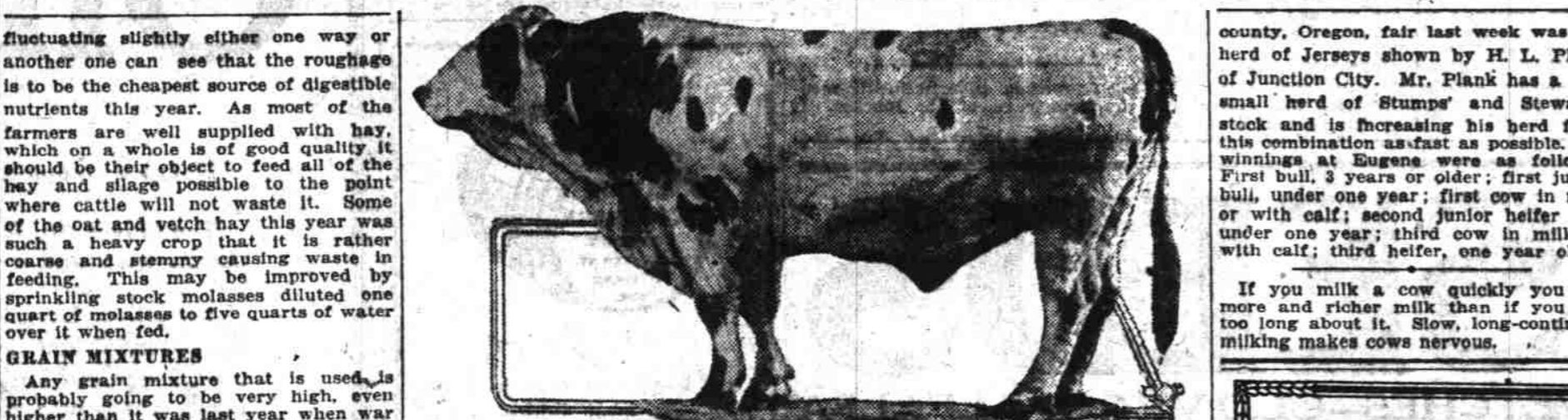
Feed	Per Ton	Per Cwt.
Red clover	\$24.00	\$2.40
Alfalfa hay	21.00	2.10
Oats	18.00	1.80
Barley	18.00	1.80
Mill run	42.50	4.25
Oil meal	42.50	4.25
Cocoanut meal	42.50	4.25
Beet pulp (plain)	42.50	4.25
Black strap molasses	12.00	1.20

From the market prices and the analysis one is able to compute the cost of a pound of digestible crude protein and total digestible nutrients in each of the feeds. This is to be found in the following table:

Feed	Cost per 100 lbs.	Cost per lb. digestible protein	Cost per lb. total digestible nutrients
Red clover hay	\$1.20	15.00	2.86
Oats and vetch	1.05	12.50	2.25
Alfalfa hay	1.05	12.50	2.25
Oats	1.00	12.50	2.25
Barley	1.00	12.50	2.25
Mill run	2.12	25.00	5.45
Oil meal	2.12	25.00	5.45
Cocoanut meal	2.12	25.00	5.45
Beet pulp (plain)	2.12	25.00	5.45

With these feeds and market prices

FAMOUS HOLSTEIN HERD TO BE DISPERSED BY AUCTION



Part of the old W. K. Newell herd which will be sold by auction on Wednesday next. The famous Holstein bull, Duke Homestead Aggie, the great 30.07 pound sire.

Any grain mixture that is used, is probably going to be very high, even higher than it was last year when war prices prevailed. By comparing the feeds listed in the table one finds mill run even at the high price of \$42.50 to be the most economical source of total digestible nutrients among the concentrates with cocoanut meal next, then counting black strap molasses. For the supply of protein oil meal is the cheapest source with cocoanut meal next.

A mixture that should return good results for herd production is as follows:

Mill run	200
Cocoanut meal	20
Oil meal	10

A good mixture

When one can secure beet pulp at \$42.50 per ton or less a good mixture would be:	lb.
Mill run	200
Beet pulp	100
Cocoanut meal	50
Oil meal	15

One pound of either of these mixtures should be fed per day for each four pounds of milk produced per day by the animal.

To get the cows to clean their boxes and also to make their grain more appetizing it is well to season these grain mixtures by adding one pound of salt to each 100 pounds of the mixture.

For further information and the solving of your feeding problems, write the department of dairy, husbandry, Oregon Agricultural College.

H. L. Plank Wins at Eugene
One of the most interesting exhibits in the dairy cattle building at the Lane

county, Oregon, fair last week was the herd of Jerseys shown by H. L. Plank of Junction City. Mr. Plank has a fine small herd of Stumps' and Stewart's stock and is increasing his herd from this combination as fast as possible. His winnings at Eugene were as follows: First bull, 3 years or older; first junior bull, under one year; first cow in milk or with calf; second junior heifer calf under one year; third cow in milk or with calf; third heifer, one year old.

If you milk a cow quickly you get more and richer milk than if you are too long about it. Slow, long-continued milking makes cows nervous.

An unusual opportunity will be given Northwest Holstein breeders to obtain some fine stock for their herds at the

Prineville, Oct. 4.—The Oregon inter-state fair, held last week at Prineville, was conspicuously successful in bringing together show animals from the local herds of Willowdale, Warren-Dickson-McDowell, Slayton, Stearns and other growers of cattle, as well as growers from Redmond and Bend. Some of the best individuals on the coast were among the stock shown, and as livestock is the most important industry of the Prineville country, this record display meant much to the success of the fair. Sheep, horses, hogs and dairy cattle were well represented also, as well as poultry, the exhibit of which completely filled the poultry pavilion.

Preparations made in anticipation of larger crowds than ever before attending the inter-state fair proved well worth while, as the grandstand, with a new additional block of bleachers 100 feet in length, was filled to capacity with spectators witnessing the arena events.

Football every day was a feature of the forenoon during the fair. Among the games which were played on Davidson field two were played between John Day high school and C. C. H. S., and the other two between John Day and Paulina. The teams were well trained and the games hard fought.

The airplane, "Ace of Hearts" of the Ace Aircraft corporation of Portland, piloted by Lieutenant Roth and his assistant, made daily exhibition flights over the fair grounds. There was also a good race program for each day, including Indian races, relay races, cow-boy and cowgirl races, wild horse races, bucking contests, steer roping and bull-dogging, novelty races, Indian war dances, band concerts and free attractions. The events were characteristic of the West.

Fine Holstein Sale To Be Held Oct. 8 At Old Newell Farm

Register of Merit Jerseys at Public Auction

Friday, Oct. 17, 1919

At My Elkhorn Ranch, Two Miles S. E. of Gresham, Or.

I will sell all my herd of Register of Merit Jerseys and their offspring, together with all my farming implements and teams, harness, etc.

I have leased my farm and the sale will be absolute.

My Jerseys are the pick of some of the best herds in the state and I have the blood lines of Chief Engineer, Monmouth Noble, and Eurybia's Prince — three of the great sires of the breed.

Much of this offering is in the Register of Merit and several cows are now on test.

All records have been made with twice-per-day milking, on pasture and mill run as their feed.

For catalog address C. D. Minton, 702 Spalding Building, Portland, Oregon.

SAM WEISS, OWNER
PORTLAND, OREGON

C. D. MINTON, Sales Mgr. J. W. HUGHES, of Forest Grove, Auctioneer; E. A. RHOTEN, Assistant.

PRINEVILLE FAIR HAS BIG SUCCESS

Stock Shown is of Best Quality and Wild West Features Are Enjoyed by Crowds.

SIXTY HEAD of Registered and High Grade Jerseys and Holsteins AT PUBLIC AUCTION

At the J. H. Sanguinet Farm, Two Miles East of Hubbard, Or., THURSDAY, OCTOBER 16, 1919

These are the entire herds of John Yoder, J. W. Exon and J. H. Sanguinet, and are by such bulls as Pets Pride of S. B. Holger, Octavia's Duke, Adelaide's Merry Pogs, and Carnation's Fern of Oregon. The herds of Yoder and Exon are all registered. The herd of Mr. Sanguinet is practically purebred, as for many years nothing but a purebred sire has been used. This herd of 30 cows in all stages of lactation has produced over 1300 lbs. of butterfat per month. The animals in this herd are all in first class condition and many of them milk better than 40 lbs. per day when fresh. There are also 10 head of cross-bred Holstein and Jersey heifer calves. Each herd is guaranteed by its owner to be free from tuberculosis or contagious abortion.

Catalogs can be obtained by writing to C. D. Minton, tained by writing to C. D. Minton.

JOHN YODER, Aurora; E. W. EXON, Woodburn
J. H. SANGUINET, Hubbard, Owners.

C. D. MINTON, 702 Spalding Bldg., Portland, Sales Manager
J. W. HUGHES, Forest Grove, Auctioneer.
E. A. RHOTEN, Salem, Ring Man.

REGISTER OF MERIT JERSEYS

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Important Notice!

The Closing Entry Dates of the Ninth Annual Pacific International Livestock Exposition, Portland, Or.

ARE: Breeding Classes, October 15, 1919
Fat Classes, November 1, 1919

Positively no entries will receive consideration unless in our office at 431 Northwestern Bank Building on or before noon of the above closing dates.

LAST INVITATION GUARANTEE SALE REGISTERED HOLSTEINS

60—CHOICE INDIVIDUALS—60
Wednesday, October 8, at Seghers, Or.

Greatest opportunity ever offered in the Northwest to buy high-class HOLSTEINS at your own price. This is ABSOLUTELY the greatest sale of the season and represents years of hard work on the part of Mr. Newell and Mr. Carmichael in breeding up these fine cattle.

Duke Homestead Aggie, the great Minnesota bull, is in the sale. He was bred by W. S. Moscrip, one of the best breeders in the United States, who pronounces his dam, Princess Rose Aggie, one of the greatest Holstein mothers in America, as capable of making 40 pounds of butter per week. She made over 30 pounds under ordinary farm care.

COME TO THE SALE AND SEE A LIFE SIZE PICTURE OF THIS GREAT COW. Absolutely the greatest offering of bred heifers in any Holstein sale ever held in the West. Mr. Newell has sold the cattle of his breeding to O. A. C., to the Idaho Agricultural College and to many other breeders and they have absolutely surpassed all other Holsteins in these herds in making big records.

Mr. Thomas Carmichael, probably the best known breeder of Holsteins in Oregon today, will offer 9 choice females. They are sired by his grand champion bull, whose sire's dam made over 900 pounds of butter in one year. Every sire that has been used on these herds is as great as the Holstein breed could produce.

Do not forget the date, October 8, at Seghers, Or. Every animal will be properly cared for until shipped and loaded on train for you. One-half freight paid on car load lots.

To reach Seghers Station, take S. P. red cars at Fourth and Washington streets. Sale begins at 10:30.
Barbecue and Free Lunch at Noon
For catalogues, wire or telephone
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202 Wilcox Building, Portland, Or., Sales Managers
J. W. HUGHES, Forest Grove, Or., and
GEORGE A. GUE, Yaloma, Wash., Auctioneers.
C. D. MINTON, Portland, Or., Assistant.
MANDIUS OLSEN ESTATE and THOMAS CARMICHAEL, Owners, Seghers, Oregon

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GOLD MEDAL Register of Merit Jerseys AT PUBLIC AUCTION

Wednesday, October 15, 1919

I will sell at my residence, nine miles east of Oregon City, about 30 head of Registered Jersey cattle. All of them are old enough to test, have official Register of Merit records, and one of them is a Gold Medal cow. Three of her daughters are in the sale. This is Brown Bessie's Alpha Gem. I have also decided to put in the great cow Kadia F, who has just dropped a heifer calf, and will give about 70 lbs. of milk per day.

There are a number of young heifers in the sale, bred, open and with first calf. Only a few bulls.

THIS IS A QUALITY SALE

Much of the Chief Engineer blood, who is sire of Golden Glow's Chief, in this sale.

We guarantee every animal right in every way. The herd has been under U. S. Government control for two years and before that under state control.

Every Animal Is Guaranteed a Breeder Or a Refund Will Be Made

For catalog address C. D. Minton, 702 Spalding Building, Portland, Oregon.
N. H. SMITH, Owner, Oregon City
C. D. MINTON, Sales Manager. J. W. HUGHES, Auctioneer.
702 Spalding Bldg., Portland. E. A. RHOTEN, Assistant.

dispersal sale to be held October 8 on the old W. K. Newell farm at Seghers station. The sale, which includes the Cloveridge farm Holsteins and a consignment from the herd of Thomas Carmichael, will be the best Holstein offering of the season, and no doubt some record prices will be established.

The herd sire, Duke Homestead Aggie, will be on exhibition at the Cloveridge farm. Twenty bred heifers will be offered in this sale a very unusual number for a complete dispersal sale. For those who wish to attend the sale the information is given out that Seghers is six miles beyond Forest Grove and is reached by the Southern Pacific electric cars. The Newell farm barns are within 500 feet of the Seghers station.

A Better Than Park Bench Bed
A litter of straw or the leaves raked up in the fall about three or four inches deep should be used on the floor of the hush house. This material helps to absorb the droppings and also provides a means of feeding the grain in such a way that the hens are obliged to exercise by scratching for it.

DISPERSAL SALE

20 Registered Jersey Cows

4 Grade Jersey cows.
35 head purebred Chester White hogs.
5 farm work horses.
1500 bushels of grain.
50 tons of hay.
All farm machinery.

Entire household furniture will be sold.

At the farm of H. P. RIDDINGS
Molalla, Oregon

FRIDAY, OCTOBER 10, 1919

Write for catalog to C. D. Minton, 702 Spalding Bldg., Portland, Oregon. Take Willamette Valley Southern train, get off at Hitchman; all trains will be met by autos. Ranch on Canby-Marquam road, 5 miles southwest of Molalla.

J. W. HUGHES, Auctioneer
C. D. MINTON, Sales Manager

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