

Dairy Department

by referring to the herd register and he advanced register if possible. You should insist upon one with a strong vitality and constitution and with good breed characteristics. In buying a young bull the choice should fall upon one that is from a cow medium to large for the breed. She should be a regular breeder with a good constitution.

The other plans to get a tested bull, one that has sired, daughters that have proved to be good producers. Such bulls are in much demand at present, although not a great many years ago some of the best sires were sold for slaughter and not until it was too late was it discovered that he had sired many high testing daughters.

Too many good bulls are discarded because it is thought they are too old. There seems to be too much experimenting with young bulls and these are not kept long enough to show their worth in the daughters they have sired. If a good bull is used for a time on one herd it may be advisable to trade with some other breeder who is in the same circumstance. The fact that he may have an old bull does not make him less valuable so long as he has proven that he transmits good qualities.



Busy asphalt-diggers in Trinidad Lake

Natural asphalt is the life of

Genasco

the Trinidad-Lake-Asphalt Roofing

And natural oils are the life of Trinidad Lake asphalt. They do not evaporate when exposed to sun and air like the oils of coal-tar and other residual pitch roofings. This is why Genasco does not crack and leak and go to pieces. It stays *lastingly* waterproof.

Mineral or smooth surface. Fully guaranteed.

The **Kant-leak Kleet** waterproofs the seams of roofing without dauby cement, and prevents nail-leaks.

Ask your dealer for Genasco with Kant-leak Kleets packed in the roll.

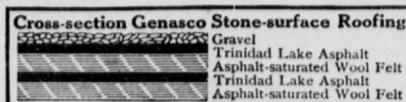


The Barber Asphalt Paving Company

Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

Philadelphia

New York San Francisco Chicago



LOOK! At the wrapper on this paper—if your time is up, please send us 50c for renewal for one year.

Care and Management of the Bull.

A bull calf that is to be kept for breeding purposes should be well fed from birth to maturity. The only object in this is to allow the animal to develop to the limit. It is nearly always true that an underfed animal remains undersized and although his progeny will not necessarily be smaller on account of a characteristic formed in this way, it is impossible to know whether his undersize has been caused by inheritance or underfeeding.

Skim milk is probably the best feed for a bull calf, and a liberal grain ration should be fed as he grows older. In dairy animals as a rule we should discourage the tendency to get fat, yet in the bull calf there is no harm done if he appears a little smooth and beefy in form while he is young. This tendency will disappear later.

The ration should always be such as to encourage good growth. Skim milk is sometimes fed until the animal is eight or nine months old to insure rapid growth.

It is best to separate the bull calves from the heifers at least by the time they are six months old. They are not fit for service at this age, of course, but sometimes they will breed.

The age at which a bull may be used for service varies with the individual. Most bulls are sufficiently mature for service at 11 months of age, although it is not advisable to breed one to over five or six cows before he is a year old. From 14 to 18 months, not over two cows per week should be bred. As the animal becomes older the amount of service may be increased until at full age and on good feed as high as 200 cows may be served in a year, if the services are well distributed. One bull, however, is usually not expected to serve more than a herd of 50 cows, because the breeding is generally crowded into a period of a few months, and the bull has little to do the rest of the year.

In order to be able to handle the bull easily it is well to put a ring in his nose. This should be done when he is a yearling. When young he can be led with a rope fastened to the ring, but later a staff must be used.

A bull should never be allowed to run loose in a pasture with the herd. There are several reasons for this: First, no breeding records can be kept and there is no way of knowing when cows are due to freshen. Second heifers may be served too young, for to make a good cow later, or cows may be served too soon after calving. Thirdly, it may be dangerous to the persons who may be walking through the pasture. The bull also exhausts himself until he becomes an uncertain breeder.

Confine the bull, but not too closely. He needs air and sunlight as well as the rest of the herd. His quarters should also be kept perfectly clean.

Questions and Answers

Question—Can you give me any information as to which of the breeds of cattle (Holsteins or Jerseys) has the best worlds' official record for fat and milk production? O. W. B., Brooklyn, Wash.

Answer—It is generally known that the Jerseys give the highest testing milk and are also the most economical fat producers. However, the Holstein holds the highest record both for fat and milk. The highest records produced in each of the four breeds are as follows:

Holstein, Columba 4th Johanna, 27,432 pounds milk; 998 pounds fat.
Jersey, Jacoba Irene, 17,253 pounds milk; 952 pounds fat.
Guernsey, Dolly Dimple, 18,458 pounds milk; 906 pounds fat.
Ayrshire, Netherhall Brownie 1X, 18,110 pounds milk; 781 pounds fat.
Question—I would like to know what to feed my cows so as to get the best fat production; also kindly tell



Make Your Fall and Winter Dairying Profitable

The wasteful losses of any "gravity" setting system or poor cream separator are always greatest when the milk is often cool or the cows are old in lactation, and under these conditions, with butter prices highest, the use of the best cream separator becomes even more important than at any other season, so that a

DE LAVAL

Will Save Its Cost by Spring

With any setting system you are wasting at least a quarter of your product at this season, with cream and butter prices highest, while the superiority of the De Laval to other separators is always greatest under the difficult conditions of separation, particularly in the skimming of cool milk.

Why delay your purchase of a De Laval until another Spring? Put it in now and let it save its own cost meanwhile. And as to that you may either buy for cash or on such liberal terms that the machine will actually pay for itself.

You may prove all this by test to your own satisfaction. See the local De Laval agent or communicate directly with the Company.

DE LAVAL DAIRY SUPPLY CO.

SAN FRANCISCO SEATTLE NEW YORK CHICAGO

me the relative value of the different cuttings of alfalfa. Some of my alfalfa has made such a rapid growth that the stems are woody and the cows leave a part of them. Is there any way to treat these stems so as to get the cows to eat all of them? E. W. J., Waterman, Wash.

Answer—With reference to your first inquiry I wish to say that it is impossible to feed fat into milk. When a cow has been kept under poor conditions the fat production will be at a minimum, but when she is given a good ration again the fat will surely increase. A maximum is reached, however, and it is impossible to feed so as to increase the fat above this.

With reference to the second I will say that the relative values of the different cuttings of alfalfa will vary considerably with the time at which the cutting is made. The experiments that have been made thus far show that there is more difference between the stages at which the first crop may be cut than there is between the first and second crop. If cut before the blossoms appear, there will be only a small amount of protein in the dry hay. If cut a little later, after nearly all the blossoms are out we have the maximum amount of protein, and when the leaves have begun to dry the protein decreases. As to the methods of feeding the alfalfa so as to get the largest returns, we learn from the experiment stations that very little benefit is derived from chopping the feed, except in the case of very woody stems that would otherwise be left. Steaming or soaking the hay adds only little to its palatability and nothing in its digestibility.

The second cutting is generally considered the best for the reason that as a rule it is generally put up in better shape, but the actual nutrients it contains does not differ much from the first cutting if the stage of cutting is the same.

Cream Eggs Wanted

Have you ever asked your neighbors about shipping cream, butter and eggs to us?

We have shippers from every station in Western Washington. They ship to us from year to year. We supply select hotels and high-class grocers who sell to a select family trade gives us the opportunity to pay highest prices and prompt returns.

Write for tags, stencils and prices.

Turner & Pease Co.
Western Ave., Seattle, Wash.

Cows Give 262 lbs. More Milk Daily

After substituting a part of their regular feed with Proteina, says a leading dairyman. ☞ Unequaled for Cows, Calves and Poultry, and fed at a comparative low cost.



46% PROTEIN - 10% FAT



Proteina is concentrated from the Soy Bean and contains 33% more Protein. The U. S. Agricultural Dept. says: "A bushel of Soy beans is at least twice as valuable for feed as a bushel of corn." ☞ POULTRY MEN FIND PROTEINA BETTER THAN BEEF SCRAPS FOR LAYING HENS. Write for signed letters from Poultrymen and Dairyman.

SOLD BY DEALERS OR PACIFIC OIL MILLS, SEATTLE.

