

purposes a brood sow that has had an attack of the cholera is much preferred to one which never had the disease.

[Editorial Note.—Prof. W. J. Kennedy, writer of the foregoing letter, is a Canadian, a native of Russell Co., Ont., for some two years a student at the Ontario Agricultural College, subsequently graduating from the Iowa Agricultural College, after which he took charge of the Department of Animal Husbandry at the Illinois Agricultural College and Experiment Station. He is now professor of animal husbandry and vice-director of the Iowa College and Station. Besides the personal experience referred to in the letter, his constant intercourse with western hog-raisers and opportunities for observation have no doubt put him in possession of a fund of information of an up-to-date character relating to this great scourge of western stockmen—hog cholera.]

Hold On to the Cow.

Perhaps it is not altogether to be regretted that when prosperity comes and nature smiles, man is apt to forget the times of adversity. At the same time it is ungrateful, to say the least, to forget the instrumentality that pulled him through, and it is foolish to suppose that adversity is banished for good and prosperity will continue forever.

It is not many years since the dairy cow stood between the farmer and very hard times indeed. Money was scarce. Prices of grain, of beef cattle, and other stock, were low. Prospects did not seem very bright to the farmer. In this emergency the dairy cow stood between many a farmer and hardship, if not ruin. She brought in cash every week or every month. She bought shoes for the children, dresses for the women folks, and—well, in some cases, perhaps, tobacco for the men. She enabled some farmers to float over the period of depression comfortably, and many to swim where without her they would have sunk.

The hard times have gone. The pig, the horse, the steer, grain, are all bringing good prices. Money is plentiful and cheap. Bank accounts are carrying a comfortable surplus. Under these conditions many a farmer is forgetting the good old cow that pulled him through. He is allowing the calf to run with her. He is forgetting, and his children are not learning, how to milk. The usefulness of the cow for the dairy is being destroyed. When the turn of the tide comes, and the farmer must turn to the cow again, she may not be able to serve him as she did before, not through any fault of hers, but because of his neglect.

Men cannot farm high-priced land on horseback. Neither can they always afford to sit on the fence and watch the calf do the milking.—[Wallace Farmer.]

Importance of Light.

In the construction and equipment of stables, few points are so sadly neglected as that of light and ventilation. In some parts of the country, any sort of structure is considered good enough for the accommodation of horses, and but scant regard is paid to the results which housing in badly-ventilated or otherwise defective buildings must exercise upon the health of the animals. An abundance of light and plenty of fresh air are two of the prime essentials in a stable. In addition to being the best of all preventives against the development of the bacteria which are now known to be such fruitful causes of disease among farm stock, plenty of sunlight and abundant ventilation in the stable are absolutely essential to the maintenance of the animals kept therein in vigorous, healthy condition. It is well known to veterinarians that defective eyesight and the tendency to shying in horses are often the result of keeping the animals in dark, close stables, the effect of which is to weaken the eyesight of the animals and thus render them liable to that impairment of the vision which is the cause of nine out of every ten cases of shying in horses.—[Farmers' Gazette.]

The Western Wool Clip.

A member of a Winnipeg hide and wool house who has spent some considerable time in the West among the sheep ranches, reports a very considerable increase in the output of wool. The figures given are 1,100,000 pounds for this season's clip, as against 500,000 pounds last year. This increase he attributes largely to the large number of sheep that have been brought from south of the line into Canadian territory. These new sheep, being largely of Merino extraction, have added greatly to the quantity of fine wool. The Mormons are going into sheep raising to a considerable extent. The average price for the season's wool clip is placed at eight to nine cents per pound. Not a very encouraging price, surely, to the grower.

FARM.

Relative Value of the Yields from Two and Four Cuttings of Clover.

BY FRANK T. SHUTT, M. A., F. I. C., CHEMIST, DOM. EXPERIMENTAL FARMS.

In using clover and alfalfa, either as "soiling" or "cover" crops, is the value of the total yield obtained from, say, two cuttings equal to that from, say, four cuttings? This question is of some importance nowadays when we are teaching so widely and so emphatically the value of clover and the legumes generally for feeding purposes and as fertilizers. Towards obtaining an answer, the Chemical division of the Experimental Farms has carried on at Ottawa, during the past season, an investigation in the field and laboratory, weighing the yields from plots cut twice and four times, respectively, and ascertaining their nutritive and fertilizing values by chemical analysis.

Before presenting the tabulated data, it should be stated (1) that the clover and alfalfa had been sown the year previous, (2) that on the plots cut twice the crop was mown when in the best condition for hay, i. e., about three-fourths in bloom, and (3) that on the plots cut four times the crop was mown a week or so before blossoming.

COMMON RED CLOVER.

Date of Cutting	Two cuttings per acre.			Four cuttings per acre.		
	Weight of crop.	Dry matter.	Crude Protein	Weight of crop.	Dry Matter.	Crude protein
	tons. lbs.	tons. lbs.	lbs.	tons. lbs.	tons. lbs.	lbs.
June 4.	10	1,840	2	427	692	
June 20	10	1,840	2	427	692	
July 15.	2	1,760	1,353	247		
July 29.	2	1,760	1,353	247		
Aug. 15	1	400	460	96		
Sep. 18.	1	1,280	319	61		
Total	13	1,600	2	1,780	939	1,380

The above results show that 1,023 lbs. more dry matter, containing 441 lbs. protein, were obtained in the season per acre from the plot cut four times than from a similar one cut only twice.

The "dry matter" of a fodder denotes the amount of its real cattle food, (the water having no direct value); the "crude protein," a most important class of constituents, includes all the nitrogenous compounds, of which the "albuminoids" or flesh-formers are the most valuable.

From the detailed analysis of the various samples, it is evident that the clover of the latter cuttings is worth, weight for weight, more than that of the earlier cuttings. This is more particularly to be seen in the case of the clover from the plot cut twice, but the same general improvement in quality—due to an increase in dry matter and albuminoids—is to be noticed, as the season advances, in the crop from the plot cut four times. These facts are well shown in the following table:

DRY MATTER AND ALBUMINOIDS, PER TON, IN FRESH MATERIAL.

Plot 1.	Dry matter.		Albuminoids.	
	Lbs.	Lbs.	Lbs.	Lbs.
First cutting	405	52		
Second cutting	479	73		
Plot 2.—				
First cutting	346	50		
Second cutting	464	66		
Third cutting	383	67		
Fourth cutting	498	83		

This improvement in quality is partly due to the clover of the later cuttings containing less water and partly to an increase in the percentage of albuminoids.

The results of these experiments undoubtedly prove that, either for feeding purposes (soiling) or to enrich the soil (as a mulch), the more frequent cutting of the clover is the more advantageous. When the crop is to be made into hay, however, other factors must be considered, such as the extra labor involved in the additional cutting, curing and harvesting, and the probability of unfavorable weather making curing difficult and perhaps impossible in the latter part of the season.

The differences here noted in yield and value of the crops from the two methods might not always be so marked. The conditions or factors affecting the yield and its composition are chiefly the stage of growth of the clover when cut and the time and amount of rainfall throughout the season. If the plant has once formed its seed there will not be that subsequent effort to vegetative growth that there would be if the cutting is made some time previous to that period. Further, clover being a moisture-loving plant, a time of drought following a cutting will greatly retard its future growth.

In a subsequent issue we shall give a summary account of similar experiments with alfalfa.

The Quality of Timothy Seed.

Timothy is one of the best-known grass seeds on the market and one which is largely purchased throughout Ontario and other Provinces. The color is a silvery white or gray and there is a certain luster in fresh seed which is lacking in the old. Usually, there is a large per cent. of hulled seed present, amounting, in some cases, to over 50 per cent. These naked fruits are usually the best ripened, and while fresh, show a high vitality. On the other hand, their germinating capacity decreases more rapidly than those that remain enclosed within the glumes. Red clover, properly kept, will retain its vitality for two or three years, but timothy seed cannot be depended upon if more than one year old. Timothy seed should therefore be sown when perfectly fresh to obtain the best results.

The analysis of twenty-one samples of Ontario timothy, in the seed laboratory of the Dominion Department of Agriculture, shows rather a better average quality than either the red clover or alsike previously reported upon. As in the case of the clovers, the value of timothy seed is most depreciated by the presence of foreign seeds. The vitality of fifteen of the samples was over ninety-five per cent., and in only one case was it below seventy. The seed would, therefore, appear to be, for the most part, fresh. Three samples were practically free from weed seeds, fourteen had over two thousand weed seeds per pound, five over ten thousand and one seventy-nine thousand. In this latter sample, which was purchased at Brantford, there were 56,000 seeds of false flax, 1,800 curled dock, 18,500 May weed, and 3,780 shepherd's-purse.

A sample from St. Catharines had 6,660 seeds of Canada thistle and 2,880 of sheep sorrel. Other weed seeds very prevalent were white cockle, lamb's-quarters, peppergrass and cinquefoil. Ergot was found in two samples of Ontario timothy, but in neither case in sufficient quantity to be very harmful. The ergot grains appear as black, cylindrical bodies, about twice as long as the timothy seed, but with scarcely as great diameter. As the grains which appear are produced on timothy plants, they very often have the timothy glumes adhering, or they may have been detached by handling. At any time the presence of ergot is rather hard to detect, but particularly so when the glumes are present. Owing to the dangerous nature of this fungus, its presence, in however small a quantity, should be sufficient to condemn a lot of seed. They were more commonly found in the Maritime timothy, being present in four of the ten samples from Prince Edward Island.

Owing to the light color of timothy seed, the presence of any large amount of impurity is easily detected. Almost all timothy has more or less white clover and alsike mixed with it. While these are not particularly objectionable, except in case a pure meadow is wanted for seed, their presence, from the viewpoint of a thorough agriculturist, detracts considerably from the value of a sample.

There is probably no better way to judge a farmer that by his pastures and meadows. Considering the immense amount of capital invested in grass growing, it cannot be too strongly emphasized how important it is for the farmer to know a good grass seed from a poor article.

Free Rural Delivery Wanted.

To the Editor "Farmer's Advocate":

In your issue of Oct. 1st, I notice an editorial in regard to free rural mail delivery. For some time I have been intending to write you in regard to this subject, but had put it off until the busy season was over. I have written the Post Office Department at Ottawa on two occasions, and was told the matter was under consideration. It is now a year since I last wrote the Department, and apparently nothing has yet been done. In this section the average farmer receives mail daily and registered matter weekly in the fruit shipping season.

At this busy time, it is not always convenient to send daily for the mail, and it would indeed be a great boon if we could have delivery daily at our doors. Take this road as an instance. It is about four miles in length, and there are over thirty occupied farmhouses fronting it. This whole section is very thickly settled. The fruit farms average from 50 to 100 acres in size, and all contain at least one house. I am glad to see the "Farmer's Advocate" taking this matter up. Let us farmers all get together, taking the U. S. Oleomargarine Bill for an example.

W. O. BURGESS.
Auburn Fruit Farm.

Lincoln Co., Ont., Oct. 7, '02.

A Suggestion Re Mail Delivery.

Dear Sir,—Am pleased to see you take up the matter of rural free delivery. For the summer months the mail could be collected and delivered by milk drawers at very slight expense. To have it during a portion of the year even would be a step in the right direction. MORLEY PETTIT.
Elgin Co., Ont.