

The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any inquiries are invited to ask questions, or send them of interest. All questions will receive prompt attention.

Balanced Ration for Milk Cows

I have corn ensilage, clover hay and mixed peas, and barley. Please give me a balanced ration for dairy cows.—J.M., Leed's Co., Ont.

Cows giving very little milk or dry cows will require little corn or ensilage and plenty of well matured corn ensilage and clover hay fed in combination. For cows milking quite heavily, say 30 to 40 lbs. a day, the following ration of good condition and high spirits. Though the stimulating effect of oats on horses is generally recognized by horsemen, the attempts of chemists to find the active principle which produces it have been without results. Recent experiments with other feeds for work horses indicate that equally as good results can be secured where oats are in part replaced by corn, especially if a certain amount of oil meal or other feed rich in protein is also used.

The quantity of grain fed should be reduced in proportion to the decrease in the milk flow, about one lb. grain to four or five lbs. of milk being a good rule. When you have a large supply of hay and corn ensilage and barley, the bran can be left out of this ration altogether and three lbs. of mixed grain substituted for the four lbs. of bran. A small quantity of roots added to this ration will increase its palatability and tend to keep the cows in a healthier condition.—E.

Comparative Feeding Value

Prof. Ralph Hoagland, of the Division of Agricultural Chemistry, Minnesota University Farm, has recently tabulated the results of numerous analyses of red clover and timothy hay, made to determine their comparative feeding value in the fattening of live stock. The figures below show the number of pounds of digestible nutrients in one ton each of clover and timothy, respectively:

Nutrients	Clover	Timothy	Difference in favor of
Ash	69.9	72.5	17.6
Fat	36.0	24.5	11.5
Protein	150.2	65.9	84.3
Crude Fibre	290.7	418.6	127.9
Carbohydrates	552.6	462.5	90.1

The results here presented show conclusively the superiority of clover in feeding value. Clover contains over twice as much digestible protein, and considerably more fat and carbohydrates than timothy hay.

Clover is especially suited for young stock and milk cows, while timothy is more used as a feed for horses. Its market value for this last purpose is so high as to forbid its profitable use for general stock feeding, since the same amount of nutrients can be purchased in other feeds for less money.

Oats as Grain Feed for Stock

Analyses show that oats are higher in protein than corn and are about equal to wheat and barley. They are higher in ash than any of the other grains, and considerably higher in fat than either barley or wheat. On account of the hulls, oats contain the highest percentage of crude fibre, an undesirable element. Oat straw contains more protein and more fat than corn stover or the straw of any other small grain.

Oats have long been the staple grain for feeding horses. Their high protein content furnishes a large amount of muscle-building material for the development of young animals and for the maintenance in good condition of older ones at heavy work. The protein and fat in the grain are largely digestible, while complete mastication and digestion are aided

by the presence of a considerable amount of crude fibre in the hull. Oats are also excellent for feeding to cattle and sheep, especially to milch cows and ewes. They are not adapted for feeding to hogs on account of the large amount of crude fibre they contain, though crushed oats are sometimes fed to brood sows. Oats are often fed to poultry, forming a large part of the ration when not too high in price.

Probably by far the greater portion of the oats produced is fed to horses. In the opinion of many good horsemen no other feed produces as good results in keeping the animals in good condition and high spirits. Though the stimulating effect of oats on horses is generally recognized by horsemen, the attempts of chemists to find the active principle which produces it have been without results. Recent experiments with other feeds for work horses indicate that equally as good results can be secured where oats are in part replaced by corn, especially if a certain amount of oil meal or other feed rich in protein is also used.

SUBSTITUTES FOR OATS FOR HORSES

Oats are usually fed whole to horses. In the feeding of young colts and older animals with poor teeth, grinding or crushing the grain is of benefit. Musty grain should never be fed to stock. When oats are high in price, corn or other grains can be substituted in part in the ration for horses. Where brewers' grains are available, they are sometimes used for this purpose, as are barley and boiled rye. A recent experiment at the Michigan Agricultural Experiment Station in wintering work horses on cheap rations showed that corn, beet pulp and bran can be used with profit in place of oats and timothy hay when these feeds are high in price. In an experiment at the Ohio station in substituting corn for oats in feeding work horses, it was found that when mixed clover and timothy hay was fed, ear corn was practically as efficient, pound for pound, as oats, and that the use of corn for work horses did not induce laziness or lack of endurance, nor did the use of oats increase spirit or endurance. This experiment does not indicate that corn will give as good results as oats when fed with timothy hay alone, while in the feeding of brood mares with foals it is probable that oats are to be preferred. At the Iowa station results equally as good were secured at less cost when work horses were fed corn with a moderate amount of oil meal, gluten feed, or cottonseed meal as when fed a corn and oat ration of equal nutritive value.

COMPARED WITH BRAN FOR COWS

The high protein content and readily digestible nature of oats make them excellent feed for dairy cows. Often, however, they are too high in price to feed with profit. According to a test conducted by the Wisconsin station, oats, pound for pound, are somewhat more valuable than bran for milk production. On this basis, with bran at \$25 a ton, oats are worth 44 cents a bushel for dairy cows. The grain is usually fed whole, though it is sometimes crushed or ground and fed in the form of corn meal. Some of the prepared feeds carrying this name, however, contain a large percentage of oat hulls and little of the grain. Oats are excellent for feeding to calves, particularly to those of the dairy breeds. They seldom form an important part of the ration of fattening cattle.

OATS FOR SHEEP

Oats are valuable for feeding to sheep, particularly to growing lambs and to ewes. While experiments

show that this grain is only a little lower in feeding value than corn for fattening sheep, better results will be secured by feeding corn and oats mixed than oats alone. Oats are usually fed than ground. Breeding ewes should be fed a half pound of oats, bran, or peas daily, the selection of the grain depending on the availability and the relative prices of the different feeds. Sheep oats make good feed for sheep as well as for other stock. Ground oats can be fed to young lambs with excellent results.

As previously stated, on account of the large quantity of crude fibre in oats, this grain is not well adapted for use in feeding hogs. An experiment at the Wisconsin station showed excellent results when a ration of one-third ground oats and two-thirds corn meal was fed to growing pigs. A larger proportion of ground oats or the substitution of whole oats for the ground oats decreased the rate of gain and increased the cost. Ground or crushed oats are excellent for brood sows. They can be fed with corn or in combination with bran, shorts, or peas.—C. W. Warburton in U. S. Farmers' Bulletin 420.

SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

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