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Feed for Cow Test.

I EXPECT my best cow to produce in June. She should make 70 or 80 lbs. of milk a day. We are going to put her on test. We will give her the best pasture for her and a couple of others. What grain ration would you advise in addition, all grains and concentrates paying to be purchased at prevailing prices—D.C., Perth Co., Ont.

There are a number of excellent feed rations which might be successfully fed to cows on pasture, and if it is desired that the very best record be made, one of the following rations, even though slightly too expensive for regular commercial feeding, may be used advantageously. Grain ration No. 1 consisting of oats two parts, bran two parts, oilcake one part, dry distiller's grains two parts and cottonseed meal two parts, will be found satisfactory. Another ration very successfully used by many feeders consists of bran 200, dried distiller's grains 200, oats 125, gluten 125, cottonseed meal 100 and oilcake 100. A cheaper ration might consist of ground oats 200, ground corn 100, dried distiller's grains 200, cottonseed meal 100. Undoubtedly, at the present prices of grains and concentrates, such rich concentrates as cottonseed meal and dried distiller's grains are the cheapest pound of protein, but it is necessary that a limited quantity of oats, bran or the like be used in order to keep the meal ration light and palatable—E.S.A.

Alfalfa and Corn—No Grain

AT an Institute held here last winter, a speaker contended that the most profit from dairy cows would be made by feeding good alfalfa hay, corn silage and a few roots. He advised feeding absolutely no grain. His advised heavy milking cows. Was this good advice? Would some grown chopped grains be sufficient for the good milkers? I think that alfalfa would eliminate grain probably. I would make a tremendous effort to grow it—Dairyman, Wexford Co., Ont.

Whether or not grain can be profitably fed to dairy cows depends largely upon the condition and quality of the cows, the amount of milk which they are capable of producing and the price of meals. Generally speaking, it does pay to feed a limited amount of grain to cows producing a reasonable amount of milk. The feed requirements of the cow are twofold, namely—for a bodily maintenance and for milk production. For the pregnant cow there is the third utilizing of feeds consumed. The 1100 pound dairy cow requires 533 pounds of digestible protein per day for bodily maintenance. For the production of 30 pounds of milk containing 3.5 per cent. butter fat there is required 135 pounds of digestible protein, hence there is required for the 1100 pound cow giving 30 pounds of milk at least 1.88 pounds of digestible protein. With the feeds mentioned, there would be required 22 pounds of alfalfa hay, 40 pounds of corn ensilage and 20 pounds of mangels. It is quite probable that with the present feed prices, such a ration for the cow producing 30 pounds of milk might, under certain conditions, be more profitable than where grain was included. However, the writer would strongly advise that part of the alfalfa hay be replaced with about four pounds of a meal mixture composed of bran, ground oats, dried distiller's grains and cottonseed meal equal parts. It must be remembered that the alfalfa hay contains double the amount of digestible protein of that contained in mixed timothy and clover hay, and over three times the amount of that contained in clear timothy hay. The quality of the

alfalfa hay also very largely would govern the advisability of feeding a greater or less amount of the above meal mixture. Generally speaking, alfalfa is worth nearly as much pound for pound as bran in the production of milk, and where this leguminous crop can be grown successfully every effort should be put forth to do so—E.S.A.

Pasture for Work Horses.

I WOULD like some light on handling our working horses through the summer. Will need them for work on the farm, will do a little teaming besides, but there will be days at a time when they will be idle. Would it be well to turn them on pasture during the idle days, or should I keep them on dry feed, always hard and ready for work? J. F. Oxford Co., Ont.

Whether or not it is advisable to turn the horses on grass during idle days depends largely on the feed which they are getting and the amount of work which they are required to do when in harness. Above all, it is necessary that all changes in feed must be made gradually, the regular feed which have been on regular hard work during spring and early summer should be let out on grass only for a short time until they are accustomed to this soft, succulent, laxative feed. If these horses are to be idle five days or more it might be advisable to discontinue the hay ration after the second day. If, however, the idle periods amount to only one or two days it would certainly be advisable to continue the hay ration and reduce the grain ration not more than one-third. Although the writer is strongly of the opinion that all horses are better from having two weeks or more on pasture each year, yet he would strongly advise against the practice of making the horses subsist largely on pasture for the remainder of the year, regular work. If the horses are to be always ready for hard work it is advisable that the ration should consist largely of dry feed—E.S.A.

Millet Seed for Stock.

WHAT is the value of millet seed as a stock feed? To what classes of stock is it best adapted? It is used increasingly. Please make particular mention of its value for horses—Subscriber, Ontario Co., Ont.

Millet seed can be fed most advantageously to hogs or lambs. Experiments conducted with this grain show that in hog feeding it could be successfully used, but that it required one-fifth more than either wheat or barley in order to make the same gains. Ground millet should never be fed alone, and is better mixed with corn or barley or, better, with the richer protein meal, such as linseed oilcake or wheat middlings. If fed in any quantities it tends to produce a soft corn in the mouth. It has also been used to good advantage in the feeding of beef cattle, but about six per cent. of this grain is required than corn in order to produce the same gains. There is here also, a tendency to produce soft meats. Millet seed has also been used to advantage in the feeding of lambs. It, however, must be crushed and fed in conjunction with some other grain. Under these conditions it has about the same feed value as corn. There is no experimental evidence as to the value of millet seed in the feeding of horses, nor has the writer had any experience therewith. Whether or not there is the same danger in the feeding of millet seed to horses as there is in feeding millet hay is doubtful. However, there seems no reason why a limited quantity of it, not exceeding twenty per cent. of the ration and mixed with oats or corn and bran, could not be fed successfully. If there is any appearance of stiffness or swollen joints, or any digestive derangement the crushed millet seed should immediately be discontinued—E.S.A.

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