



## Timely Farm Suggestions

BY TAIT BUTLER

### A Molasses Feed for Hogs

A READER has a molasses feed on hand having the following guaranteed composition, and wishes to know its value as a hog feed and how it should be mixed with corn and tankage to make a satisfactory ration:

Protein not less than 9 per cent.  
Fat not less than 1 per cent.  
Carbohydrates not less than 39 per cent.  
Crude fiber not more than 25 per cent.  
Ingredients—Alfalfa meal and molasses.

There is certainly an error in this guarantee. What is stated as carbohydrates is probably nitrogen-free extract. The carbohydrates are the fiber and the nitrogen-free extract combined. It is certainly impossible to mix molasses and alfalfa in a manner to reduce the protein to only 9 per cent and only have 39 per cent of carbohydrates, for both alfalfa and molasses contain over 60 per cent of carbohydrates each.

No combination of this feed and corn will make a satisfactory ration for hogs. The molasses feed contains less protein than corn and is well known that corn contains too little protein for feeding any class of hogs. This feed can be used to a limited extent as a substitute for corn or to take the place of one-fourth to one-half the corn in the ration, but such a mixture must have some feed rich in protein like tankage added to properly balance the ration for any kind of hogs, when growth is desired.

The only objections to this molasses feed for hogs is that it is too low in protein and too high in fiber, but a mixture of this feed and corn, in the proportions, say of one of the molasses feed to two of corn would not be excessively high in fiber, because of the very low fiber content of corn. If to 8 parts of such a mixture is added one part of tankage the composition of the feed will be about as follows:

Protein ..... 15.68 per cent  
Fat ..... 4.68 per cent  
Carbohydrates ..... 62.86 per cent  
Fiber ..... 8.98 per cent

This should give a very satisfactory mixture for feeding hogs weighing around 100 pounds each.

Perhaps more of the molasses feed might be used, say equal parts of this feed and corn with one part of tankage to eight parts of that mixture; for the molasses feed at \$1.70 a hundred is cheaper than corn at ruling prices. The only objection to such a mixture is the large proportion of alfalfa, which makes a high per cent of fiber for hog feeding; but if such a mixture produces satisfactory gains there is no objection to it.

### Corn and Irish Potatoes Compared as Hog Feeds

A READER wishes to know the relative feeding value of corn at \$1.50 a bushel and boiled Irish potatoes at 75 cents a bushel for hog feeding.

Potatoes fed alone, either raw or cooked will not prove a satisfactory feed for hogs. Grisdale, of the Ottawa, Canada, Station, according to Henry, says that "Raw potatoes will scarcely maintain life in pigs, but given in small quantities they help to keep them in health when other succulent feed is lacking."

When potatoes are fed they should only form a part of the ration. More can be used when they are cooked, and the quantity used should also be

influenced by the relative prices of potatoes and the grains used for pig feeding; but in no case should potatoes constitute the whole ration nor any large part of it if good growth is to be obtained. Their chief value is to furnish succulence when cheaper succulent feeds are not available.

In tests made to determine the feed value of potatoes a mixture of some dry grain and potatoes is fed in comparison with the grain alone. At the Wisconsin Station it required 44 pounds of cooked potatoes, weighed before cooking, to equal 1 pound of corn when a mixture of corn and potatoes was compared with corn alone. In Denmark it required 4 pounds of potatoes to equal 1 pound of mixed grains. At the Oregon Station when a mixture of potatoes and barley was compared with barley alone it required 3.4 to 3.8 pounds of cooked potatoes and 5.5 pounds of raw potatoes to equal 1 pound of barley when fed alone. We may, therefore, conclude that it requires about 4 pounds of cooked Irish potatoes when fed as a part of the ration to equal 1 pound of corn or other grains used for feeding hogs, and something more than this weight of raw potatoes.

Perhaps one-fourth to one-third the ration may be made up of cooked Irish potatoes, or cooked Irish potatoes may take the place of one-fourth to one-third the corn in the ration for hogs when the price of Irish potatoes per bushel is about one-fourth the price of corn per bushel. In other words, if 3 pounds of corn is being fed, 2 pounds of corn and 4 pounds of Irish potatoes, cooked, might be substituted. In case raw Irish potatoes are used, they should not displace more than one-fourth the corn, and it would require 2 3/4 pounds of corn and at least 3 pounds of raw Irish potatoes to equal 3 pounds of corn.

In view of these facts, Irish potatoes should not cost over 37 1/2 cents a bushel when corn costs \$1.50 a bushel, and then they should probably not form over one-third the ration. This comparison does not take into consideration the cost of cooking the Irish potatoes, but if the hogs are getting no other succulent or green feed the value of this succulence may well pay for the trouble of cooking the potatoes.

Our reader cannot afford to feed Irish potatoes at 75 cents a bushel when corn is \$1.50 a bushel, for both are deficient in protein and require some rich protein feed like tankage to balance them. With hogs on pasture and receiving some protein feed, Irish potatoes cannot profitably take the place of a part of the corn at \$1.50 a bushel, unless the potatoes sell for less than 35 cents a bushel.

### Smut of Oats

EVERY spring and fall for many years, when oats are being harvested and again when they are sowed in the fall, The Progressive Farmer has called attention to the loss caused by smut and given the remedy. Already inquiries are coming to us regarding smut in the present crop of oats, which although light is still further reduced by the failure to treat the seed before sowing. We again call attention to this matter when the evidence of loss is before the farmer in the ripened or ripening crop and at seeding time we shall again bring the trouble and the remedy to his attention.

Smut in oats can only be prevented by treating the seed. The loss due to smut is much larger than generally supposed, and can be prevented by treating the seed oats as follows:

"Formalin can be purchased from a druggist at a cost of from 75 to 90 cents per pound, much cheaper if purchased in quantity. One pound is sufficient to treat 45 to 50 bushels of grain. It should be used at the rate of one ounce to three gallons of water, and in general, one gallon of mixture suffices to treat one bushel of grain.

"Spread the grain in a thin layer on a smooth barn floor, canvas, or upon hard ground, and sprinkle with the diluted formalin, using either a spraying machine or a watering pot. Sprinkle so as to thoroughly and evenly wet the grain with the mixture. Then shovel the grain over thoroughly a few times to insure even distribution of the solution and thorough wetting of all the seeds, and cover the pile with canvas, carpets, blankets, or bagging, to keep the fumes of the formalin within. The pile should stand from six to twelve hours in this way. The seed may then be readily dried by mixing with air-slaked lime, and the lime may be removed by the fanning mill, or the lime may be omitted and the grain dried by spreading it out in layers about 5 cm. (2-inches) thick and stirring it frequently. The seed is then ready to sow. It may be stored, but in so doing it is liable to renewed smut infection, unless all bags, bins, etc., with which it comes in contact are also disinfected with a thorough application of the formalin solution. The drill that is used should also be disinfected either with formalin or by a thorough dusting with dry lime."—Dr. F. L. Stevens, Diseases of Economic Plants.

### What Is a Fair Price for Oats in the Straw?

A READER states that "Threshed oats are worth \$1.10 a bushel retail here. What ought I to charge for oats in the straw when sold to tenants?"

Nothing is stated as to the probable yield per acre of grain, except that "the oats are headed well and the straw rather short."

As there is no regular market quotations on unthreshed oats, or oats in the straw, to set the price, the only basis for estimating a fair price is to assume a certain percentage of grain to straw and calculate the value of the oats and straw on that basis.

But oats vary greatly in the proportion of grain to straw. When the yields of grain are low, say 20 to 25 bushels per acre, the weight of the grain may equal the weight of the straw; but as the yields per acre increase, the proportion of straw increases, so that with very large yields of grain per acre the straw may weigh twice as much, or even more, than the grain. It is apparent that oats in the straw, when the weight of grain equals the weight of the straw, should sell for much more per ton or per hundred pounds than when the weight of the grain is only one-half the weight of the straw.

We are not told the market price of oat straw, but only given the retail price of oats at \$1.10 per bushel. But oat grain in the straw is not worth as much as threshed oats. We are, therefore, assuming a value of \$1, instead of \$1.10 a bushel for the grain in these unthreshed oats, and \$8 a ton for the straw. Below will be found the calculated value of these unthreshed oats per ton at these prices for grain and straw, when the propor-

tions of oat grain to straw are as indicated:

1 of grain to 1 of straw ..... \$35.25 per ton  
1 of grain to 1 1/4 of straw ..... 32.25 per ton  
1 of grain to 1 1/2 of straw ..... 29.50 per ton  
1 of grain to 1 3/4 of straw ..... 27.51 per ton  
1 of grain to 2 of straw ..... 25.14 per ton

If it is thought that these calculations show too high a value for unthreshed oats, or oats in the straw, then the answer is that \$1 a bushel for oats and \$8 a ton for oat straw are high prices.

### VETERINARY PROBLEMS

#### Milk Fever (Parturient Paresis or Parturient Apoplexy)

MILK fever, or a form of paralysis following calving (parturient paresis or parturient apoplexy) is not uncommon in heavy milking cows, with their third to sixth calf. It usually occurs within a few hours to one or two days after calving. The more quickly it makes its appearance after calving usually the more severe the attack.

The symptoms develop quickly, perhaps the first one noticed may be a marked lessening of the milk flow, or a wobbling of the hind parts. This loss of control may increase until the animal goes down unable to stand. If the cow lies on her breast, which she will usually do at first, the head is thrown around on her shoulder in a characteristic position. As the symptoms develop the cow may throw herself flat on her side and generally more or less complete unconsciousness to surroundings occurs. Heavy breathing, or a snoring like noise in breathing is not uncommon. Without treatment the severe cases generally die in from a few hours up to 24 or 36 hours.

Treatment.—The exact cause of milk fever is not known, but a very effective treatment has been discovered. If the udder can be thoroughly distended by pumping air into it and this is done rather early in the disease, recovery is almost always certain. The air may be pumped into the udder with an ordinary milk tube and a bicycle pump, or perhaps by holding the opening of the teat against the pump tube without the use of a milk tube, but care must be taken to have the end of the teat and milk tube thoroughly clean and that the air drawn into the bicycle pump is far enough from the floor of the stable to prevent sucking up dust. These ends may be obtained by thoroughly washing the teat, especially the opening at the end, with some disinfectant solution, like some of the coal tar disinfectants mixed with water that has been boiled and allowed to cool. It is also best to milk a few streams while the washing of the teat is being done. The udder should be pumped full of air so that it is well distended, having the appearance of the udder of the fresh cow before milking. It is important that no attempt be made to give a cow medicine while suffering from this trouble, or at least no medicine should be given after she gets down or shows symptoms of paralysis. The cow should be kept lying on her breast when down, instead of flat on her side. This can often be done by packing sacks stuffed with straw against the shoulder on the opposite side to which the head is resting. These precautions are to avoid anything passing into the lungs and causing death immediately or later developing pneumonia. To prevent this trouble many dairymen now avoid milking the udder out more than just enough to prevent too great fullness and inflammation, for the first two or three days after calving.