

THE PROGRESSIVE FARMER

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Timely Farm Suggestions

By TAIT BUTLER

What We Mean by a Well Drained Soil

COMMENTING on our suggestion that rape should be sowed on a rich, moist soil, a reader says, "I thought rape did best on a well drained soil."

It does, but a well-drained soil is more likely to be "moist" in dry weather than one that is not well drained. It is pretty certain that a soil that is not well drained will not be moist in dry seasons. On the other hand, neither is a soil off which the water runs too quickly well drained. A well drained soil is one from which an excess of water passes quickly enough to prevent injury to plants growing on and in the soil and yet does not pass off or through it so quickly as to carry too large quantities of soil or plant foods with it. Such a soil will be a "moist soil," or at least, is more likely to be moist than one not so drained.

In other words, a well drained soil is "drier" in wet weather and "moister" in dry weather, than one not well drained.

Selling Cotton Seed to Buy Corn

A READER asks: "Will it pay me to sell my cotton seed at 54 cents per bushel and buy corn at 50 cents? Which would make the best feed with hay, crushed corn or cottonseed meal?"

It will pay better to sell cotton seed at 54 cents a bushel and buy corn at 50 cents. Tests indicate that cottonseed, up to the limited quantity that can be economically used, have just a little more feeding value, pound for pound, than corn. But in Mississippi, where this inquiry comes from, a bushel of cotton seed weighs only 33 1/2 pounds, whereas a bushel of corn weighs 56 pounds. In other words, 54 cents a bushel for cottonseed is 1.62 cents per pound, while 50 cents a bushel for corn is only .89 cents a pound. It is, therefore, apparent that corn is much the cheaper feed at the prices stated.

As to whether corn or cottonseed meal will be the better feed to use with hay, it all depends on the hay, and the animals to be fed. With legume hays, the corn at 50 cents a bushel will be cheaper than cottonseed meal at present prices. With grass hays or corn fodder (corn leaves) it will be economical to use some cottonseed meal, although, for certain animals, horses, for instance, it will be best to use a mixture of corn and cottonseed meal when grass hays are used.

Feeding Frost-bitten Corn and Sorghum

A READER wishes to know if corn and cane (sorghum) are dangerous to feed to livestock after they have been frost-bitten.

As applies to corn at least, the danger, if any exists, is in the condition which develops after the freezing. If it is cut promptly—which should be done if it is green before the frost and is killed or seriously affected by the frost—and properly cured, so that neither decomposition nor mold develops, the cured corn will make good feed and will probably contain about the same feeding value as if cut and cured just before the frost. If the frost is severe and the corn green and it is allowed to stand and die and dry out after the frost, before it is cut, the feeding value will probably be considerably lessened, but if cut at once

there will be only slight if any loss in feeding value.

As to the sorghum, there is probably some more danger of the frost producing changes or causing the formation of injurious substances in the stalks. If such danger exists, it will probably be much greater if the sorghum is allowed to stand for some time after the frost. If cut at once, we do not think the conditions will be different from those stated as to corn.

If the sorghum is only partially killed by the frost and is then allowed to stand for some time, we would advise caution in feeding it until it has been thoroughly cured or made into hay. While green sorghum, that has been stunted or checked in its growth, especially as with the second growth during dry weather, sometimes develops prussic acid, a deadly poison, we have not heard of poisoning with cured sorghum hay and if the frosted sorghum is promptly cut and cured we feel certain there is very little danger if any at all, in feeding it.

How Much Can We Pay for Feeds for Beef Cattle?

A READER wishes to know what he can afford to pay for peanut meal, linseed meal, gluten meal and cottonseed meal to feed beef cattle, with cowpea and grass hays and oat and wheat straws and corn stover for roughage.

Of course, no one can answer this question. So much depends on the man doing the feeding, the grade of cattle and the markets, that no one can give an answer of any value without more knowledge of those facts and conditions than it is possible for anyone to obtain from the inquiry as stated.

If this inquirer is a cattle feeder of experience he probably knows what he can afford to pay for cottonseed meal to feed beef cattle. It should, therefore, while not answering the question, be of some value to him to compare the digestible nutrients or feeding values of these high-priced concentrates. The following table will give this information:

DIGESTIBLE NUTRIENTS IN 100 POUNDS

	Protein Lbs.	Carbohydrates Lbs.	Fat Lbs.
Peanut meal	42.8	20.4	7.2
Linseed Meal (New Process)	31.5	35.7	2.4
Gluten Meal	29.7	42.5	6.1
Cottonseed Meal	37.2	21.4	9.6

It will be noticed that the peanut meal and cottonseed meal are richest in protein, and for this reason, unless a considerable part of the roughage is cowpea hay, these feeds are likely to be worth more, or to be most valuable in this feeding problem.

On the other hand if the greater part of the roughage is cowpea hay, then gluten meal, which is richest in carbohydrates, should be of greater value.

New process linseed meal is low in oil content, compared with these other feeds; while old process linseed meal contains 6.9 per cent of digestible fat, and owing to the purgative properties of oil it should not be used in large quantities. That is, linseed meal should not make up more than a comparatively small part of the concentrates in feeding beef cattle. If any of the other feeds named are used we would, therefore, eliminate any consideration of linseed meal for beef cattle feeding in the South.

Peanut cake or meal is not generally found on Southern feed markets, and more or less difficulty may be ex-

perienced in obtaining it. Gluten meal and gluten feeds are on all Northern feed markets and are good feeds, but are usually higher in proportion to their feeding value than cottonseed meal, especially for the Southern cattle feeder.

Unless cottonseed meal goes above \$35 a ton we would suggest that it is likely to be the cheapest source of protein in concentrates for the Southern feeder. For balancing the cottonseed meal, if a concentrate rich in carbohydrates is needed for that purpose, we would suggest that our reader investigate the prices on molasses and rice products, such as rice polish and rice bran. At present prices, in many sections, corn may be considered as a source of carbohydrates used in small quantities.

HOW TO KEEP THE BARNYARD FREE FROM MUD

Keep It Well Drained and Don't Let Livestock Run on It, or Provide Open Sheds for the Animals

A READER wishes us to tell him how the barn lot can be prevented from becoming the mud-hole so common in the South during the winter months.

In answer let us ask another question: Is there any reason why livestock should be permitted to tramp up the ground into mud and mire around all sides of the barn? Recently we saw a dairy barn that had green grass growing all around it, except a narrow lane at one end, where the cows entered, and a driveway, in this case graveled, passing along the other end. We also recently saw a barn where on three sides, the land was raised above the surrounding land, well drained and covered with a good sod of Bermuda grass. The other side probably became muddy in long seasons of wet weather, but one could reach such a barn at any time without wading shoe-mouth deep in mud.

The truth is, no effort is usually made to prevent the livestock tramping the lot into a mud-hole on all sides of the barn.

In the first place, the barn lot should be located on fairly level ground, raised slightly above the surrounding land, and no water should be allowed to drain onto it from other portions of the farm. On the other hand, the barn should not be located on a side hill where one half the fertilizer value of the manure is lost by drainage into ditches or creeks. Any lot, on which falls our usual rainfall will become a mire during wet weather, if tramped by stock, unless it be large in proportion to the stock kept, is on sandy land, is abundantly supplied with long litter, like straw, or has a hard or paved surface.

Any of these conditions may be difficult to obtain in many cases, and it is safe to state that most lots, where livestock are confined, will get muddy in wet seasons; but the point we insist on is, that there is no need for confining the stock in small lots surrounding all sides of the barn; that larger grass lots sodded with Bermuda, or smaller lots well drained and away from the barn, or touching one side of it only may be provided without difficulty.

In sections where the mud becomes deepest, open shelters, or paved lots should be provided, if the livestock must be kept in a small enclosure. We have no need to make special provision to protect our livestock from cold, throughout the Cotton Belt; but the rain and mud of our Southern winters are more injurious to livestock than are the colder temperatures farther north.

If a larger lot, raised slightly above

the surrounding land and protected by ditches from all water except that which falls on it, cannot be kept reasonably firm by the use of abundant litter, then we insist it will pay to provide an open shed in order to afford a dry place for the stock to rest when they desire. In any case, if the lots cannot be kept in passable condition, there is no reason, if a mud-hole must be maintained, that it should extend around all sides of the barn.

When livestock are fed in small open lots, experiments indicate that the saving in manure in two or three years will pay for the cost of paving them, even though the stock should do no better; but as a matter of fact it is very probable that the stock will do enough better to pay for paving if no manure were saved. Open, covered sheds, larger well drained lots and the location of the lots on one or two sides of the barn only, are the most practical means of abating the mud nuisance so common around most farm barns in winter.

Best Time to Sow Rape

A READER wants to know "At what time rape seed should be sown for fall and winter grazing for hogs."

The Progressive Farmer has probably stated this a dozen times a year for the past 10 years; but that is no reason why any reader should not ask the question, if he does not know it. It is our purpose to help those who need help and it is only through such questions that the Editor is able to know just what his readers need. Or, in other words, only by our readers asking things they do not know are we able to be certain of just the things they want to know or things which should be discussed in the paper to be of most benefit to the largest number. It matters not how many times a question has been answered, if a reader does not have the information that he needs we want him to write The Progressive Farmer for it. Of course, we would prefer that all regular subscribers keep indexed files of the paper and refer to these when they need information, but if they have no files or if they cannot find the information wanted in their files, we want them to write for it, if it is an agricultural problem. Only by this cooperation can we best serve them with the information of actual, present-moment helpfulness, which will make the paper of most value to them.

In the northern half of the Cotton Belt we would sow rape on rich, moist land from August 20 to September 15, or still better between September 1 and 10. Farther South it may be sown up to October 15, or even up to November 1; but the earlier it is sown, provided the weather is not too hot, the larger amount of fall grazing will be obtained and the earlier it will be ready for grazing.

Of course, it may be sown later than the dates mentioned, especially on the southern limits of the areas mentioned, and with favorable weather good results will follow; but while rape likes cool (not cold) weather and rich, moist soils, still, if sown too late, insufficient growth is made before the weather becomes too cold for its best growth.

NOT A COMPETENT GUIDE

Billy Sunday stopped a newsboy in Philadelphia and inquired the way to the post-office. "Up one block and turn to the right," said the boy. "You seem a bright little fellow," said Sunday. "Do you know who I am?" "Nope." "I'm Billy Sunday, and if you come to my meeting tonight I'll show you the way to heaven." "Aw, go on!" answered the youngster; "you didn't even know the way to the post-office."