GRAINS OR CONCENTRATES FOR FEEDING DAIRY COWS

By Talt Butler

[This is No. 27 of a series of 52 articles on "How to Succeed With Hogs and Cattle," The twenty-eighth, "How to Balance the Ration for the Dairy Cow," will appear next

grains or concentrates in addition to all the best roughage she can eat. The poor dairy cow, or one producing a small quantity of milk, should receive little or no grain, but should get all her feed from roughage or pasture.

Between the poor cow, which should be fed exclusively on roughage. and the best cows, which require a large amount of grain or concentrates to produce most economically, there are many different grades of cows which require different amounts of grain. Feeding according to capacity of production will be discussed in a later article, but it may be here stated that any dairy cow good enough to be kept and milked should receive all the roughage she will consume. The reason is plain, for roughage is or should be produced on the farm and is cheaper than the concentrates. The dairy

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HE good dairy cow, producing a cow may maintain herself and give large amount of milk, must have some milk on roughage alone, but she cannot live on concentrates alone. Her digestive organs require the bulky roughage, and since it is cheaper and the cow not only requires it but also uses large quantities economically, it follows that she should have all she can eat of this class of feeds.

> As previously stated, the best roughages and those which should be used most largely in the South are pasture, silage and legume hays. It is true, as has also been previously stated, that other cheaper and less nutritious roughage may be used to a limited extent, but pastures, silage and legume hays, being the best, will take the place of the largest quantities of high-priced concentrates and consequently must be used to the largest extent practicable in order to reduce the cost of production.

grains or concentrates should not be is extra good. This has been stated used at all. This is only true when the cow is giving, say, less than 20 pounds of milk daily. It is quite possible that those breeds which give a lower grade of milk and usually give a larger quantity may be fed most economically on roughage alone when giving under 25 pounds of milk daily. But no definite rule can be given which will apply in all cases, although the production below which cows should not receive any high-priced concentrates is somewhere around that indicated.

Of course, it may happen in the case of high-priced legume hays and a very cheap protein concentrate like cottonseed meal, that some of the latter can be fed to cows giving some less than 20 pounds of milk a day; but if legume hays are produced on the farm and their value for soil improvement and the cost of marketing considered they are likely to prove more economical for such a dairy cow than even such a cheap concentrate as cottonseed meal.

It may also be well to again mention that it may pay to feed even such low-These facts are re-stated because producing dairy cows some cheap some of our readers have taken our -concentrate like cottonseed meal

previous statements to mean that when on pasture, unless the pasture before, but the difficulty of understanding such a statement comes from the different ideas of what constitutes an extra good pasture. In the South there are few extra good pastures, and this is especially true when applied to pastures which do not contain a considerable proportion of legumes.

> The dairyman has had his serious troubles recently, owing to the very high prices which concentrates have sold for and the failure of the prices of his products to rise proportionately. His solution is better cows and more economical feeding and the only way which we can see for him to feed more economically is to furnish his cows more and better roughage and reduce the quantities of high-priced concentrates. We do not mean by this that he should try to get along without so much grain unless he improves his pasture and increases his silage and legume hay, for as a rule the good cow has been under-fed, and this has occurred just as often as the poor cow has been over-fed.

But as a general policy or principle of feeding the American feeder has used concentrates with a lavish hand. as compared with his use of good pastures and good roughage. This has been due to the fact that concentrates or grains have been abundant and cheap. It will be many years, if indeed the time ever occurs again, when human food grains or concentrates suitable for human food will be plentiful and cheap, and the American dairyman must give more attention to better pastures and the use of relatively more and better roughage in order that he may reduce the use of high-priced concentrates. European feeders had for a long time before the war learned and practiced this principle in feeding, and we must now take full notice of the force of this economic law of dairy production.

What concentrates are likely to prove most suitable and economical for the Southern dairyman? This is not only an important question for the Southern dairyman but it is also his most difficult problem.

As with roughage, although to a lesser degree, it will usually be found most profitable to produce the concentrates on the farm. The costs of handling and transportation charges are a considerable part of the cost of feeding stuffs which are purchased, and these may well be sufficient to give the dairyman a fair profit on their production.

Concentrates for the Dairy Ration

DUT most dairymen will find it necessary to purchase some concentrates even though an equivalent in feed value be sold from the farm in the form of grains which are used for human food and may be sold at a price which makes the selling of them and the buying of other concentrates a profitable business transaction. For instance, wheat and cotton seed should be sold if produced, even though wheat bran and cottonseed meal must be purchased.

As we see it, cottonseed meal is the only protein concentrate which should be purchased, under present conditions. Of course, soy beans may be grown and used and we believe this may be done in such a manner as to make them more economical than cottonseed meal, even though this latter by-product has always and is still selling below its feed value as compared with other feeding stuffs. But if soy beans are grown and threshed it will pay better to sell them for the usual prices than to feed them. When they and peanuts are grown in sufficiently large quantities the meals after the extraction of the oil may offer us a protein concentrate as cheap as cottonseed meal.

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