

Harvesting the Corn Crop—Why We Should Not Pull Fodder

Article No. 27 on "Diversification and Independence in 1915!"

By TAIT BUTLER

HARVESTING the corn crop is one thing which may be done in many different ways and still be done right. The method of harvesting which should be used is largely determined by the objects sought. Of course, corn is grown for food for man or farm livestock and consequently the ideal method of harvesting is the one which secures the largest food value from the crop produced. The chemist tells us that the ear contains less than half the food value contained in the entire plant; that there is more nutrients in the stover—stalks, leaves and shucks—than in the ear. But the grain or ear is more palatable and more digestible than the dry stover, hence, it is perhaps more nearly correct to estimate the feeding value of the stover as about 40 per cent of the entire plant. This being the case, it is plain that any method of harvesting which wastes the feeding value of the stover is not efficient nor satisfactory.

Under most conditions, both grain and rough forage are desired from the corn crop. If grain is not required the method of harvesting the crop which secures the largest proportion of the full feeding value of the plant is to put the entire plant in a silo. By this method there is less loss of feeding value than by any other. The cost of harvesting is little if any greater than by other methods which preserve the entire plant; the crop is stored with the greatest economy of space; is preserved in the best form for feeding and in the most convenient way for ready use.

But as stated, some grain is usually desired from the corn crop. In fact, the grain contains a human food value six or seven times greater than any farm animal can produce from it, and for this reason, if for no other, at least a part of the grain should be harvested as such.

The Best Method

WHEN the crop is harvested chiefly for the grain or ears, which is true as to much the larger portion of the corn crop, there are several methods in use. The entire plant is cut and cured in the shock and then the ears removed and shucked by hand or machinery and the stover shredded, cut or fed whole. If our statement that the stover contains 40 per cent of the feeding value of the whole plant, or that 60 pounds of stover is equal in feeding value to 40 pounds of ears is correct, it follows that this is the best method of harvesting that portion of the corn crop not put in the silo.

In the Corn Belt of the North much of the corn is harvested by removing the ears from the standing stalks and then grazing the stalk fields. In the South, the habit of pulling the leaves, and often cutting the tops of the stalks also, is still largely followed. One objection to removing the ears and grazing the stalk fields is that a large part of the feeding value of the stover is lost. Not only is there a loss of feeding value from the weathering of the stover, but much of it is not eaten when in this condition. Another objection is that the tramping of the land when wet probably does as much damage as the feed secured is worth, and still further, the "corn stalk" disease occasionally develops among stock grazing the stalk fields. Moreover, cutting and curing the corn in shocks permits an early removal of the crop from the land and is favorable to the early seeding of fall crops.

This series of articles will run throughout the year, the next two articles in the series being:
July 17—Getting Ready for the Fair; How to Make Exhibits and What May Be Learned From Them.
July 24—Planning for Wiser Marketing of This Year's Crop.

The objections to cutting and curing the crop in shocks, which is most frequently urged, is that in our moist climate it does not cure properly. That our climate offers no serious objection to this method of harvesting the corn crop has been conclusively proved by hundreds doing it successfully year after year, in all parts of the South. Failures are not due to the climate or our larger growth of stalks, but to lack of skill in shocking. If the corn is cut when half or more of the leaves have turned yellow, medium-sized shocks properly made and one band tied sufficiently tight and high enough to just include all the tassels corn will cure satisfactorily in the shocks anywhere in the South. This is no longer an opinion, but a fact, proved by hundreds having done it, even in the damper sections near the coast.

Pulling Fodder

IN THE South, and as far as we know, nowhere else, a method of harvesting which saves merely the ears and the leaves is still too common, although practiced much less than formerly. By this method the feeding value of the stalks is wasted, except where the tops of the stalks are cut and saved with the pulled leaves, as is sometimes done. That corn leaves, pulled green and well cured, make good rough forage cannot be denied; but the cost is large in proportion to the feed consumed, a large part of the feeding value of the stover is lost, and owing to the fact that the leaves are usually pulled when green, the weight of grain secured is more or less decreased.

Taking up these objections, in the order stated, many claim that the cost of pulling fodder and housing it is about equal to its value. Others are quite certain that more feed can be produced with the same expenditure of labor, in growing cowpeas, sorghum, soy beans or other forage crops. To say the least the labor cost of saving fodder is too large for the amount of feed secured.

The waste of a large part of the feeding value of the stover, which we have stated is 40 per cent of the entire plant, is also a serious objection to any method of harvesting the crop which saves only the ears or only the ears and the leaves.

No Excuse for Not Harvesting the Stover

IN SOME sections, where hay is abundant and cheap, there may be some question as to the economy of harvesting the stover; but in the South, where roughage or hay is generally scarce and high-priced, there is little doubt but that it pays to save the entire crop. It is not a question as to whether corn stover is as good as some other feeds, or whether some other roughage might have been produced at less cost, but simply, is the forage secured in the stover worth the added cost of harvesting the crop. If the extra cost of harvesting the crop in such manner as will save the entire plant is less than the value of the stover, then the stover should be saved. To cut and cure the corn in the shock will cost little more than to gather the ears and pull and gather the leaves, and the extra amount of forage received is worth much more than the difference in the cost.

If the corn stover is shredded or cut up, by running through a feed cutter, it is, pound for pound, equal to or superior to cottonseed hulls, which sell for from \$5 to \$10 a ton. To show the value of the stalks, which are wasted when fodder is pulled and when only the ears are

gathered, it may be well to state that about 10 per cent of the feeding value of the stover is in the shucks, 30 per cent in the leaves and 60 per cent in the stalks. Estimating 40 per cent of the feeding value of the plant in the stover, we then have 4 per cent of the feeding value of the entire plant in the shucks, 12 per cent in the leaves, and 24 per cent in the stalks. In other words, when the stalks are wasted about one-quarter of the entire feeding value of the crop is wasted.

The entire crop can be harvested by cutting, curing in the shock and husking and shredding by machinery at a cost of from \$3 to \$4 per ton of stover secured. If we deduct from this the cost of gathering the ears only, the cost for securing the stover is far below its feeding value, and so long as we buy hay from the North it is little short of stupidity to waste 40 per cent of the feeding value of our corn crop, as is done when only the ears are gathered.

The decrease in the weight of the ears or grain, caused by removing the leaves, or leaves and tops, when they are green, or before the corn has matured, will vary with the stage at which fodder pulling and topping is done. Experiments indicate that the loss of grain varies from almost nothing, when fodder is pulled late, to from 10 to 20 per cent when the leaves and tops are taken from green or immature plants. A loss of from two to five bushels of corn, by weight, per acre, due to pulling the green leaves, is not unusual with corn yielding 20 to 30 bushels per acre.

Making Silage of Dry Stover

IT, therefore, seems certain that the waning habit of fodder-pulling should cease entirely, because of the high labor cost for the fodder obtained, the waste of forage by failure to save the stalks, and the decreased yield of grain.

A method of harvesting which has grown in popularity in recent years is to cut and cure the corn in the shock, remove the ears and then cut the stalks and put them in the silo. In this way the grain is obtained as such and if the corn is not cut until reasonably well matured, say 10 days or two weeks later than the stage at which fodder is usually pulled, the grain is as heavy and the yield as great as when the ears are allowed to dry out on the standing stalks in the field. The dry stover does not make as palatable or as nutritive silage as when the whole plant is put in the silo, at the proper stage of maturity, but the stover is more palatable and probably also more digestible than when fed dry. In making silage from dry stover a large amount of water must be used and extra care taken to tramp or pack it well in the silo. Such silage, with cottonseed meal, makes a cheap feed for wintering cattle.

Coming Farmers' Meetings

Secretaries are requested to forward us dates of any important Farmers' Meetings

- Virginia State Farmers' Institute, Fredericksburg, Va., Sept. 7-8.
- National Farmers' Union, Omaha, Neb., Sept. 7-9.
- National Farmers' Congress, Sept. 28-Oct. 1.
- Southern Cattlemen's Association, Birmingham, Ala., August 18-19.
- North Carolina Farmers' Convention, West Raleigh, August 24-26.
- Virginia State Farmers' Institute, Fredericksburg, Va., Sept. 7-8.
- North Carolina Good Roads Association, Asheville, N. C., July 14, 15, and 16.
- Alabama Farmers' Short Course, Auburn, Ala., July 31-August 6.

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