ENSILAGE SESSION—MARCH 28.

FIELD CORN CULTURE.

By D. F. SAYRE, Rock County, Wis.

First Paper.

H. G. ADAMS in the Chair:

Clover and Corn.—There is an old adage to the effect that “well begun is half done,” and in regard to field corn culture that adage applies admirably. There are two crops which, as a farmer, I like and which supplement each other. I refer to clover and corn, and it seems to me that to grow a crop of corn I have to begin the year before I plant it. Clover and corn supplement each other, because the protein that we find in the hay supplements the fat-producing corn, and if I have fed properly, instead of feeding out five bushels of corn, I have only fed two and a half bushels, supplemented with two and a half bushels of some protein feed; otherwise I have lost the proportion of benefit in the excess of one kind of food over the other.

When I Sow Clover.—I always sow my clover in advance; I sow it two years in advance, and I do it in the first place to give me a beautiful mat of growing verdure from early spring till late fall, because the rains of heaven bring to me the fertilization that I need for my corn, and the clover lies there like a great sponge to hold those fertilizers just where I want them for the corn crop. That is the natural process of fertilizing my land. Then, again, this clover goes down to a greater depth into the ground, to bring up the mineral elements that we need for our use, and stores them on the surface. This it does by some wonderful machinery, storing these mineral elements right in its roots near the surface of the ground; it gets it in some way from the air above or the ground beneath. Still another reason why I like to grow clover is, that there is no way in which I can cultivate my field and get a seed bed for my corn, with the ease and certainty that I can by growing clover.

Turn Under in October.—Then, in the month of October, turn under your clover, and I like to turn it under uncut. I think there is additional benefit, and then we will see the mechanical influence of clover in the softening of the ground, in breaking it up and pulverizing it, and in no other way can I get such a good seed bed to use in the spring. So far before planting I have my seed bed; I put on my disc harrow and run it this way and that way, until I have fully broken up that seed bed and made it level. What do I do then? I want to plant something on it. I want seed corn, and how shall I get it?

Early Maturity of Seed.—The preceding year, in September, at the latest, I go into my field and look for the seed that I want. I
look in the first place, for the early maturity of the seed; not the earliest. I think if we look for the earliest, we are apt to cause the corn to degenerate; the crop will grow less and less. But I do look for early, fair maturity, and I look for another point. I mean uniformity in getting the seed; I don’t want one ear of one kind of corn and another ear of another kind of corn for my growing crop; I want seed that shall be as nearly uniform in maturity as in size, in color, in looks, and with those two points before me, I go into my field and pick my seed corn, not later than the first of October.

Fire Dry the Seed.—What then? C. R. Beach says: “Take the corn and fire dry it, and that is the whole sum and substance of it.” I want this seed artificially dried and cured. We have met many farmers who say this is not necessary, but I beg leave to differ from them. Once in a while your corn will come out all right without any artificial heat, but we have to move in such a way that we shall be certain. So I say, take the corn in any way you choose, only that artificial heat shall come to it in some way, to dry it before the severe freezing of winter shall come on and hurt the germ.

Planting the Corn.—Now I have my seed and my seed bed. How shall I plant it? We all know how. We have our two-horse planter and we plant it; some plant in drills. I like to plant in hills, with the rows three feet eight inches apart, and about the same distance in the row, but it doesn’t make much difference except this: It wants to be planted a fair depth; so deep that tho dry weather shall not retard its growth.

Dragging the Corn.—The first important thing in the culture of this crop of corn is the dragging — the harrowing of the corn — before it shall come up, and that is something we all have been negligent about. We differ a great deal about the extent of harrowing. I don’t like, myself, to harrow it after it barely comes up, but if we will put in our harrow after we have planted it just as soon as we can, within a day or two, and go along and harrow that corn, killing the germ of the new weeds which have come up, we have accomplished a great deal. We have half cultivated that corn when we shall have gone over it with the harrow twice or even three times before it has come up.

Cultivating the Corn.—I cultivate my corn so as to keep it level. The old fashioned way used to be to hill it up, but I think the best success is in level culture, moving the surface of the ground just as often as we can conveniently before the corn gets beyond our reach.

I don’t know that I have any other process. I only know that if I can have a bed of clover to plow under; if I can get at it fairly early in the spring, with my disc cultivator; if I can plant it with the corn planter about two and a half inches, or a little deeper than that, I can get it in the moisture, and if I can work it two or three times just before it comes up, and then as it comes up, I am almost absolutely sure I shall have a crop of corn.

Last year I failed in my corn because I had no clover bed. My neighbor had a good crop of clover, and plowed it up in the spring, and for miles around his was the only piece of which you, gentlemen, would have said: “There is a field of corn.”

Discussion.

Mr. Cadwallder.—Do you plow under the second crop of clover?

Mr. Sayre.—Yes, my rotation has been one of four years. I want to say
another thing that I forgot. If, at the last cultivation of the corn, we will sow on a crop of rye, say the last of July, we will get a crop of rye started so when we come to cut up our corn-fodder, we will let the rye grow later in the fall and feed it to our sheep and cattle and thereby we have the fodder for our cattle and sheep and off the same land we have a green growing crop, which shall store up the elements near the surface, thus giving us two results.

Mr. North.—I understood you to say you harrowed your corn three times before it came up.

Mr. Sayre.—I would like to do that. I would like to keep the harrow going all the time after I planted, until it comes up. The difficulty I find is when it just comes up; the first inch is more tender than when it gets up further, and, therefore, I want to straddle the row very carefully; it is more dangerous just when it comes up than it is before or after. I don’t think it hurts to step on it before it comes up. It may mash it down some, but I don’t think it hurts it as much as it does it good.

Mr. Coolidge.—Don’t you harrow both ways?

Mr. Sayre.—Yes, sir.

Mr. Hoard.—Harrowing corn is becoming a very general practice with us, and I notice that corn is harrowed later and later every year; men are harrowing it when it stands taller than they ever supposed they dared to do.

Mr. Anderson.—I harrow corn when it is from six to eight inches high, and it does not injure it so much as to harrow it when it is one or two inches high; but I harrow the corn ground thoroughly before planting it, if the season is favorable, and it don’t require so much harrowing before it comes up, and I wait until after the corn is up. When the land is prepared as Mr. Sayre says, I don’t think it would need harrowing so much. Just before my corn comes up I roll it and harrow it thoroughly.

Mr. Hoard.—Do you make any provision for the teeth running too deep?

Mr. Anderson.—No, I have a very light harrow that will take in five rows of corn, which is made specially for harrowing corn, and the teeth are not set as deep.

Mr. Hoard.—The practical use of harrowing corn is only to start about half an inch of the surface soil.

Mr. Anderson.—I like to start it about an inch and a half. You will find that the weeds will start two inches below the surface, and there are only two ways of killing weeds, that I know of—one is by tearing them up, and the other is by burying them.

Mr. Hoard.—A harrow fixed with lugs so that it will enter but about half an inch you will find will do most excellent work.

Mr. Sayre.—The first harrowing I ever saw of corn was in Will County, Illinois. To my surprise, the farmer had taken a two-and-a-half foot roller and had rolled over his corn lengthwise, when the corn was standing six or eight inches high. Then he put his harrow on and harrowed it, and I said: “My friend, that field is ruined.” In a week’s time I came back and that corn was standing up as straight and nice as could be, but I wouldn’t like to try that myself.

Mr. Stewart.—How deep do you plow that clover under?

Mr. Sayre.—About four and a half inches. If I plowed in the spring, I should plow it shallow.

Mr. Robinson.—I have a method of cultivating corn that I like very well. My corn ground is marked, and just before the corn comes up I take my horse cultivator (two of them if my field is
large) and cultivate the rows, just as if the corn were up; then I cross it with my harrow, and you can get the start of the weeds. That is an excellent way where the ground is hard; I have followed it many years.

Mr. Gould.—That is an excellent way where you drill in your corn.

FOODDER AND ENSILAGE CORN.

By JOHN GOULD, Portage County, Ohio.

Second Paper.

Value of Fodder Corn.—This question of fodder corn has come up in a new form within the last three or four years. We are just beginning to realize the value of fodder corn. For the last three hundred years, I presume, we have been acting on the principle that all there was of the corn crop was the ear corn, and wasted largely the stalk. Whereas, if we had known better, we would have found that the stalk had almost, if not quite, an equal feeding value to the ear corn. Sixty millions of acres of corn are raised in the United States annually, and forty-five million head of horses and cattle eat up our meadow hay and our corn, whereas, if our corn fodder could have been saved it would have been ample, I think, to fully winter all our cattle. The silos have brought new revelations to us, and given us a value in fodder corn that we have never had before; at least, it has called our attention to it in a way that we have never had it called to us before, so that we have now begun to make a study of fodder corn, and what it may do for us in the way of giving us cheaper and better rations for our cattle. We are beginning to find out that the average farmer must devote about two or two-and-a-half acres of meadow land to it, to get the roughage to winter a cow or steer. If he will put in his fodder corn and take care of it, in the new ways, he will get the roughage on an acre that is ample to winter two or three head of cattle.

Its True Feeding Value.—This brings us to the question, how shall we get this crop, and get its full feeding value? In the past, we have failed to recognize that nearly, if not quite, sixty per cent. of the feeding value of corn is the gift of the sunshine and of the air, and in the past, when we have been sowing our fodder corn, we have attempted to get as much as possible in the way of seed upon the ground. Most of us have been sowing from two to four bushels of seed corn upon an acre, so as to make the corn thin and fine so the cattle shall easily feed from it. Later demonstrations with fodder corn have taught us this lesson: That we should not plant over eight to twelve quarts per acre, in the form of drills, the idea being to let the sunshine and air have free circulation into our rows of corn so it shall develop; so we plant the