

About the Farm

Keeping Up the Grain Land
Legumes in Rotation with Grain
Crops Give the Soil New Life

By E. E. Miller

My neighbor, James Brown, who is a pretty good farmer, said to me the other day: "Last spring you experts asked us farmers for a bigger corn acreage, and got it. This fall you are asking for a bigger wheat acreage, and are getting it. Next spring you will want still more corn and next fall again an even bigger wheat crop, perhaps. Well, how long do you think you can keep that up and not run down the land so that your bigger acreage will give you no more bushels of grain than now comes from the acreage we have been tending? Don't you think that it is ever possible to plant so much land that you cut down the size of the crop?"

It may be well to say just here that when James Brown wishes to be sarcastic he speaks of "you experts," and when he is inclined to be good-natured he says "them experts."

Disclaiming the title of expert, I came back at him with a question or two: "You put out more corn than usual last spring, didn't you, and more wheat than

usual last fall, and are going to do the same thing next year if asked?"

He grunted assent.

"Well, how are you managing it?"

"That's just it. I'm not managing it."

I just went and did it, and it's got me to thinking. Last spring I plowed up some land that I had meant to leave in grass, and a field of clover that ought to have gone over till next year. Last fall all my corn land except that one clover field has gone into wheat. If I put out as much corn next year as I did this I'll have to plow up another piece of blue grass. And if I put out as much wheat next fall as I've put out last I'll have to put in a lot of stubble land that ought to be left for grass and clover. And next year my land won't be in so good shape to make wheat and corn as it is this year, and if I keep this up any longer it will be getting poorer all the time."

"Cutting out the clover, then, are you?" I asked.

Sow Clover Everywhere

"No, sir. Not a bit of it. Every foot of my wheat land will have clover on it. And on the field that I'm leaving to go in corn the second year next spring I'm

sowing rye to turn under. I've figured it out that the growing of stuff to turn under must be about the best way to keep up the land while I am doing this wartime farming. So everywhere I get a chance, winter or summer, in goes a legume of some kind, and where I can't put in a legume I'll sow rye or something else."

James Brown handles his manure pretty well. When he can he hauls it direct to the fields. When he cannot do this it is put into a concrete pit under a shed. He uses plenty of bedding for his horses and mules, which still stand on clay floors. He even takes good care of the manure from his hogs—a thing few farmers do.

The waste of manure on the average farm is criminal. It has been criminal all along, but it is worse than that now. There can be no question that if more attention is not given by the mass of farmers to the maintenance of soil fertility any large increase in the acreage planted to grain will in the course of a few years defeat its own end—the increase of the total production of grain. Increase in the average acre production is just as important as increase in the acreage planted.

The two most obvious methods of increasing average acre yields are the more liberal use of fertilizers and better prepara-

tion of the soil and cultivation of the crops. Unfortunately, the very fact that we are at war makes both these means doubtful.

The fertilizers are simply not to be had in many cases. Neither is the labor necessary to prepare and cultivate the larger acreage demanded. No farmer should neglect either of these methods of increasing yields, but the majority of farmers will be unable to profit greatly by either of them.

Three of the other things that can be done James Brown is doing. Probably nine-tenths of the farmers could get more than they are now getting out of their manure. Some farmers need manure sheds and pits badly; others need to put in concrete floors or gutters; many others could add anywhere from ten to two hundred per cent to the results they now get from their manure by the simple process of taking decent care of it.

Right in this connection, too, may be noted the waste of leaves and other humus making materials that goes on on so many farms. Southern farmers especially are perpetually destroying possible future crops by the burning of vegetable matter that would soon decay if left alone. They are no worse though than the wheat growers who burn straw or leave straw-stacks to rot down in the fields. Too much fire on the farm means a lessening of its productive capacity. This should be remembered.

Another thing in which James Brown is setting a good example to other farmers is the planting of legumes with increasing liberality. He said that some of the clover he had sown last fall and possibly some of that he means to sow in the spring may have to be plowed up next fall, but he is going to take a chance on it. In taking this chance he is on the safe side; for, as he said, "If it can stay another year I'm to the good; if it has to go under it will do some good anyway."

The planting of legume crops should be increased and not decreased in this time of stress. This is doubly true of quick-growing legumes, such as cowpeas and soy beans, that may be used to fill in odd corners and short intervals between crops.

Bare Slacker Acres

The third thing James Brown is doing—the growing of winter cover crops—is of special importance to the southern half of the country. It is an old story, but a true one, that the soils of the Cotton Belt have suffered more from winter exposure than from summer cropping.

The planting of winter-growing crops for the benefit of the soil has always been a profitable practice in that section. As a wartime measure it is almost imperatively demanded by both self-interest and patriotism. The Southeastern farmer who willfully or carelessly leaves his land bare in winter is something of a "slacker," no matter what else he does.

Two other things that my neighbor did not mention as part of his program he may yet make use of. Many farmers are using phosphate rock more liberally than ever before, and they are doubtless wise in so doing. When it can be used in liberal quantities in connection with stable manure or green manures, or on land very rich in organic matter, it is almost certain to return a profit.

It is not likely that it will pay in most cases to substitute this material for the more readily available phosphatic fertilizers, and it is doubtful if the full profit from it will be secured in any one year or any one crop; but as a means to permanent soil fertility it is a thing to be considered carefully. One way of using it to advantage is as an absorbent in the stables. It is probably made more available when so used, and it saves much fertility that might otherwise be lost from the manure.

Numbers of farmers, too, think that they see in the increased use of lime, preferably in the form of ground limestone, a chance to meet part of the draft made upon the soil by wartime farming. They are unquestionably right about this when the lime is used as it should be—chiefly for the growing of the legumes.

"Lime is the road to clover, and clover

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