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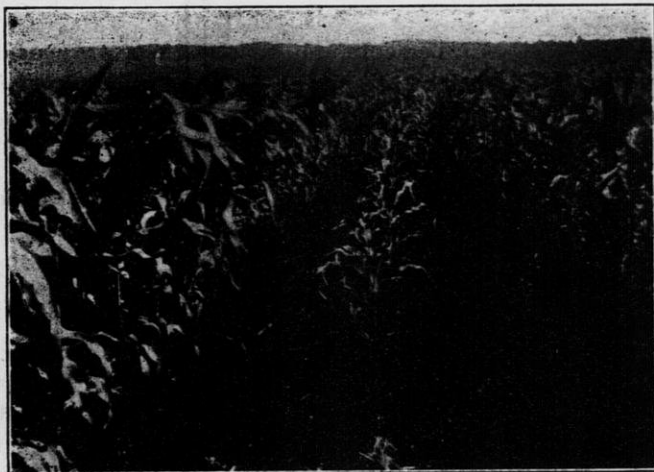
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WISCONSIN BANKERS' FARM BULLETIN

Feeding The Farm

A. R. WHITSON

Wisconsin Agricultural Experiment Station



THE ROW THE FERTILIZER MISSED.

The corn was all planted at the same time and received the same care, but on one row the fertilizer attachment failed to work. What was the fertilizer worth on this field?

File this bulletin where you can find it

Distributed by

Wisconsin Bankers' Association

Burton M. Smith,
Chairman Agricultural Committee,
North Lake

George D. Bartlett,
Association Secretary,
Pabst Building, Milwaukee

Feed The Farm

What! Feed the farm—feed the soil? Yes, the mother that feeds us must herself be fed.

With the light and heat of the sun, Mother Earth can put things together in plants as food for us—if she has the right things to work with.

These things we call elements, and among them are carbon, nitrogen, phosphorus, potassium, calcium, magnesium, sulphur, iron and water made of hydrogen and oxygen. The soil usually contains a good quantity of most of these, but often there is a lack of some of them.

You know something is lacking when the crop does not make a good growth, but you cannot be sure except by making experiments in which different elements are added to the soil, or by a chemical analysis.

Nitrogen, phosphorus, calcium, and magnesium are most often lacking in upland soils. Marsh soils usually have an abundance of nitrogen, but are lacking in potassium, phosphorus, and, when acid, in calcium.

WISCONSIN CROPS EXCEL IN YIELDS

The yields of Wisconsin crops are already good, better in fact than the yields of the same crops in other states. Wisconsin yields in 1918 were:

Spring wheat	24.6 bushels
Winter wheat	22.0 bushels
Oats	46.6 bushels
Barley	35.7 bushels
Rye	17.6 bushels
Potatoes	112.0 bushels

In all of these crops Wisconsin has the highest average yield among the states growing any considerable amount of the crop. These yields are due to high yielding seed—and manure.

WISCONSIN YIELDS CAN BE STILL LARGER

But Wisconsin cannot afford just to lead the United States in yields. In Europe, where ten times as much fertilizer is used as in Wisconsin, the yields are still far above those of Wisconsin. Take, for example, the average yields in one country: wheat, 33 bushels; oats, 55 bushels; barley, 42 bushels; rye, 30 bushels; and potatoes, 200 bushels. This European country spends \$2.50 an acre on fertilizers for every 24 cents spent in Wisconsin.

Fertilizers other than manure are used on less than 1 per cent of Wisconsin farms. In Europe fertilizers are used on nearly every farm. One reason that the World War could last so long is found in the use of commercial fertilizers by the blockaded central powers.

NATURE SUPPLIES FERTILIZER STOREHOUSES

Great deposits of phosphorus and limestone (calcium) are found in the United States. Nature has been storing them for our use for many, many years. Why not use them?

The air contains millions of tons of nitrogen. Clover, alfalfa, and soybeans can gather it for us. Why not let them?

WHAT FERTILIZERS WILL DO IN WISCONSIN

The dollars and cents value of fertilizers on the different kinds of soil in the state can be illustrated by actual results from the use of the different kinds of fertilizers on Wisconsin farms. Here are some examples—they will interest you, especially the one describing the kind of soil found on your farm.

On very poor sand at Hancock this last year, rye without fertilizers yielded at the rate of six bushels an acre, while with 500 pounds of a 4/12/0 fertilizer costing \$8.75, the yield was 22 bushels. The grain sold at \$1.60 a bushel, giving a net profit of \$16.85 an acre.

On the same land, potatoes on a light clover sod without fertilizer, yielded 89 bushels, while with an addition of 500 pounds of a 4/10/0 fertilizer costing \$8.15, the yield was 120 bushels. They sold at 80 cents a bushel, giving a profit of \$16.65 an acre.

Corn on the same poor sandy soil following grain and without fertilizer yielded 18 bushels an acre, while on a clover sod with an

addition of 500 pounds of 4/12/0 fertilizer, the yield was 55 bushels.

At Marshfield, on good heavy silt loam soil, the use of phosphate fertilizer has produced an average increase on corn, oats, wheat, and clover of \$11.14 an acre on these products for five years at normal prices has been \$7.73 an acre net profit.

At Dodgeville, on excellent prairie silt loam soil, 300 pounds of acid phosphate, costing about \$4, increased the yield of oats this year from 69½ to 87 bushels an acre. Selling at 60 cents a bushel it nets a profit of \$6.50 an acre. At normal prices for fertilizers and 40 cents for oats the net profit would be just \$6.00 an acre.

On similar land, 125 pounds of acid phosphate applied in the hill with the corn increased the silage from 8.7 tons to 15.8 tons an acre, thus showing the special need of phosphorus on this piece of land.

On marsh soil in Price county, an application of 275 pounds of acid phosphate and 100 pounds of sulphate of potash, costing usually \$4.75, produced a yield of timothy and alsike clover of 5,100 pounds an acre. Without the fertilizers the yield was 2,700 pounds. At \$10 a ton the net profit was \$12 an acre.

On a marsh at Palmyra the yield of silage with the same treatment was 15½ tons, while without treatment it was 3½ tons an acre.

LET THE STATE SERVE YOU

The State Soils Laboratory and the Soil Survey will help you find out which elements your soil needs; they want you to ask them.

Hundreds of farmers are increasing their yields each year. Are you getting your share?