

NITRO-BACTER SOIL VACCINE
Tests at M. A. C. and Department of

Agriculture Plats Fail to Show Product of Value.

Nitro-bacter Soil Vaccine is a bacterial product put out by the National Nitro-Bacter Corporation of Chicago. Branches have been established in Michigan and over the country generally, for the exploitation of this product. The material is advertised as containing bacteria which, when placed on the seed or in the soil, render plant food available, with a guaranteed increase of 25 percent in the crop so treated.

Tests are being made on four plats at East Lansing this summer with this material. The plants included in these tests are as follows: Field and garden peas, field and garden beans, potatoes, soy beans (four varieties), cow peas, Kaffir corn, Early Amber Broom Corn, Dwarf White Milo, Dwarf Broom Corn, Standard Broom Corn, and Sudan Grass. The Nitro-bacter was applied to the plants when they were very small, and a second treatment was made two weeks later. The directions call for the use of a soil-manure solution, to which the Nitro-bacter is added. Inasmuch as the plant food and bacteria in the soil and manure might confer some benefit, a soil-manure solution alone was used on the check strips. Care was taken in the conduct of the experiment, and all necessary precautions were observed. On this date (July 27), the plants have attained in all cases very nearly, if not absolutely, their maximum vegetative growth. No growth in favor of the Nitro-bacter treated strips can be discerned. Plants in the strips treated with the soil-manure solution alone are fully equal to those in the strips which received the soil-manure solution plus Nitro-bacter.

The United States Department of Agriculture makes the following statement regarding Nitro-bacter:

"The United States Department of Agriculture has made preliminary tests on a bacterial preparation for the treatment of soil, seeds, and plants, sold under the name of Nitro-bacter Soil Vaccine, a brief summary of the results of which is given below.

"Determinations made on the nitrogen transforming ability of the bacteria in the vaccine in comparison with that of those in greenhouse soil and rotted manure, a combination of which was used according to directions in the preparation of the material, indicated that the bacteria of the vaccine were in no wise superior in efficiency to those of the soil or the manure.

"Alaska garden peas treated with Nitro-bacter Soil Vaccine in accordance with the instructions for seed soaking produced less weight of vine

and peas than did the seed soaked in a similar manner in manure and soil solutions.

"Rooted geranium cuttings watered with soil vaccine in comparison with some watered with soil-manure solution gave the following results:

TREATMENT	No. of pots and plants	Average gain per plant in 65 days
None	4	2.5 grams
Soil manure solution	4	3.5 grams
Soil-vaccine	4	3.25 grams

"Under sterile conditions it was demonstrated that the two samples of this preparation which were tested did not contain bacteria adapted to the production of nodules on alfalfa, red clover, cow peas, soy beans, or vetch.

"Although other experimental work with this material is in progress at present, the experiments already concluded on Nitro-bacter Soil Vaccine are sufficient to indicate that the material is practically worthless and that any value it may have after it is ready for application is probably due to the soil and manure used in its preparation."

MOTHER OF PRIVATE GLENN CARD DIES

Mrs. Merton G. Card, whose son, Private Glenn Card, was killed in France, and whose funeral services were held last Sunday, died at her home on Woodlawn Ave., Saturday afternoon.

Funeral services were held Sunday morning at the undertaking parlors of Jennings & Son. Interment at Chesaning beside the body of her son. She is survived by her husband.

E. MAIN ST. PAVING WORK TO START SOON

Commissioner Stebbins has contracted with the Barber Asphalt Co. of Flint, to resurface the block of pavement between Park and Saginaw street, on E. Main street. The block will be resurfaced with asphalt. The work will probably be started the fore part of next week, it is said.

Owosso Company Gets Big School Contract

The John R. Kelly Co. of this city has been awarded the contract for the plumbing, heating and ventilating of the new high school being erected at Fenton. The contract price is approximately \$31,000.

TELLS WHAT UPSET FARMERS' BUSINESS.

Factors which brought about the slump in the farmers' business and methods for their relief were outlined recently by Sydney Anderson of Minnesota, chairman of the joint Congressional Committee of Agricultural Inquiry, in a statement anticipating the results of the committee's work. Michigan county farm bureaus held community hearings on the subject last July and presented their findings to the American Farm Bureau Federation for presentation to the Congressional Committee. County farm bureaus in other states did likewise. Mr. Anderson's report follows closely the points brought out by the farm bureaus. He said:

"The causes which brought about the recent agricultural crisis, the principal phenomena of which was the almost perpendicular drop of farm prices, can be reduced to four factors. These factors, in the order in which I believe they affect the situation, are as follows:

"1st. The falling off of exports, particularly in beef and beef products, pork and pork products, and cotton.

"2nd. The very marked decline in domestic consumption, in which the so-called buyers' strike was a factor as was also the general industrial depression.

"3rd. The increase in freight rates.

"4th. The pressure of limitations of credit and discount rates.

Relief of the present situation, said Mr. Anderson, lies in the improvement of the export situation, the return of the industrial situation to normal and the extension of liberal credit to agriculture. In his report there is one ray of sunshine, where Mr. Anderson declares his belief that the farmers' situation has reached a turning and is improving. J. Carruthers at Newberg is testing Red Rock, Egyptian, and Michigan Amber.

Mr. J. Shippee, south of Bennington, is growing about ten acres of certified Red Rock which he intends to have certified for seed purposes. From these foundations it is expected that we will be able to secure good seed wheat at home.

Various kinds of fertilizers are being tried on separate strips by some of these men in order to determine which fertilizer is best adapted to their needs.

Curing and Storing Seed Corn

Good seed corn can only be secured by thoroughly drying carefully selected ears before being exposed to freezing weather. In late September and during October, corn as it comes from the field contains from thirty to forty per cent moisture. In this condition it is easily damaged by moulding and freezing. In handling seed corn properly, it is important to dry it quickly to prevent mould because mold kills the germ. If corn is frozen when moist, it kills the germ rendering it unfit for seed.

Immediately after harvest, corn for seed should be placed where it will receive free ventilation in order to dry rapidly. When corn is dry it contains about 12 per cent moisture. When seed corn is drying, no two ears should be allowed to touch. Many excellent devices for drying and curing seed corn are in common use. The ears may be strung on binder twine and hung from a rafter. Wire racks on which the ears are impaled may be made from woven wire fences or may be purchased. Racks may be easily constructed from two by four and laths on which the ears may be laid. These racks should be stored in the attic or spare room in the house, or in the tool house. A well-ventilated room is necessary. A cellar without a furnace is, as a rule, a poor place to store seed corn. During the early period of drying, all windows should be open, so as to remove excess moisture.

Corn properly dried will not be greatly damaged by freezing, but it is best to store it where it will not be exposed to extreme cold.

Where large amounts of seed are to be handled, special corn-drying houses are desirable, equipped with numerous windows or panels which will give free circulation of air, and a stove to furnish artificial heat to hasten drying and prevent freezing.

SEEK ORDERLY FLOW OF STOCK MARKET

At the sixth meeting of the Farmers' Livestock Marketing Committee of Fifteen, held in Chicago recently it was decided that the board of directors of the proposed National Livestock Board shall be charged with the duty of bringing about an orderly flow of livestock to market, in addition to overseeing the terminal commission associations and the stocker and feeder companies of the proposed organization.

FARMERS GET FOUR CENTS A BUSHEL ON RATE CUT

Extra returns of four cents a bushel on grain shipped for export was made possible to Michigan farmers September 4 when Michigan railroads put into effect a 7 1/2 cents per hundred reduction on grain shipped east for export. The reduction was made by all railroads east of the Mississippi to the Atlantic coast, under permission of the Interstate Commerce Commission. Export grain money which had formerly gone into the pockets of the railroads will now go to the farmers.

Based on the export business of the Michigan Elevator Exchange, shippers can see how this reduction will effect them. Last year the exchange shipped 900 cars of wheat and rye for export. If the exchange ships the same number this year after the reduction has gone into effect, there will be a freight saving or extra return of about \$30 on every car of wheat and about \$24 on a car of rye, or a total of \$25,000 if 900 cars should be shipped. A reduction of 4 1/2 cents per hundred on domestic grain is said to be under consideration.

Public Opinion Strong for Disarmament

Pointing out that the cost of capital battleships is mounting yearly and the speculations of capitalists from America in European holdings which he characterized in some instances as "international gambling," Rev. William Heilman, rector of Christ Episcopal Church, in a sermon Sunday morning said the world had reached a point where the people must either choose between protecting with ships and troops these international speculators abroad or protect humanity at home. Mr. Heilman's subject was "The Disarmament Conference or Public Opinion."

The speaker traced the development of public opinion on the disarmament question after the statement by General Tasker H. Bliss, that "if the Christian people really want disarmament, they can bring it about," up to the present time. He went through the history of the attitude of Michigan people in regard to the question, and told of the action of Episcopalians at a convocation in Ann Arbor last spring voting against the statement by General Bliss, and the disarmament resolution introduced in congress by Senator Borah of Idaho.

The next important step in the disarmament question, Rev. Heilman said, was when the proposition was received favorably by the press and public of Great Britain.

"Statesmen are going on trial at this disarmament conference," Mr. Heilman said, "and there will be grave consequences if it fails, for the people will lose confidence in the plan of giving delegated authority to representative statesmen."

The speaker told of two purchases in Europe to illustrate his statement regarding international gambling.

He said British war manufacturers have taken over the entire wool industry of Poland and are producing wool and shipping it so cheaply to England that it is stagnating the wool industry of that nation.

Then he said a group of American capitalists have purchased the estate of Archduke Ferdinand of Austria which includes great iron works equal to our steel industry here. The estates also include great farms which provide Vienna with food.

Those two steps in industry, he pointed out, will mean competition with the United States. At the same time these speculators are asking naval protection from the countries with which they are competing.

"Ten years ago," said Mr. Heilman, "capital battleships cost \$5,000,000; today they cost \$45,000,000. A ship becomes obsolete in from seven to ten years. In the next ten years it may be safe to expect a capital ship to cost \$90,000,000."

Supervisors Conclude Important Session

The board of supervisors concluded its October term Monday after a session full of business with many important matters to decide. One of the necessary but unfortunate things was the recommending to the County Road Commission to stop the building of all Covert law roads for one or two years, the bonds for road work having piled up to an enormous sum, making the county tax for this year over \$300,000. There are several small stretches of poor roads connecting long mileages of improved roads that seemed a positive necessity, but the members of the board gracefully accepted the financial condition and agreed to wait a year or two and fix up the bad spots to make them passable for that length of time.

The members of the board of supervisors expressed their regret at the resignation of Supervisor Dewey of Owosso, Monday, and extended best wishes and congratulations on his appointment as postmaster, and presented him with a token of their regard.

Phil. Shepard, west of Owosso, is testing Red Rock, Egyptian, Michigan Amber, Leap's Prolific and Dawson's Golden Chaff.

L. Drury of Bennington, has planted Red Rock, Michigan Amber, Egyptian and Eldorado. Ten acres of Red Rock which he sowed will be certified for seed purposes.

BANKERS GIVE FARM BUREAUS THEIR O. K.

Michigan bankers are behind the State and county farm bureaus. Their agricultural commission, in a report presented the bankers at their annual meeting, endorsed the farm bureaus, declaring that they were fully organized, self-supporting and well financed. Bankers were urged to co-operate with the farm bureau in serving their farmers. The endorsement stated that the farm bureaus are carrying out for the farmer those activities that the bankers themselves have sought to accomplish through their own agricultural commission.

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