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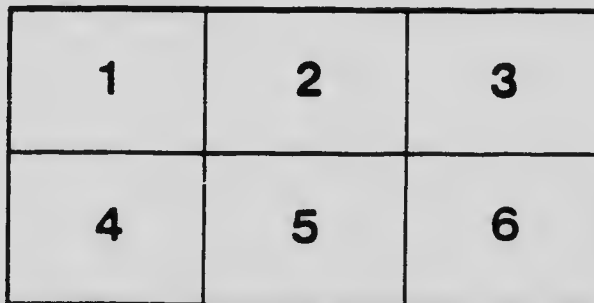
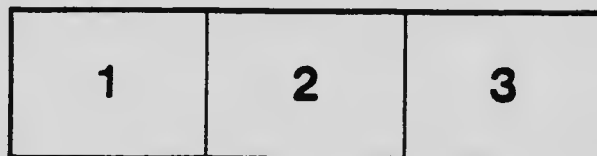
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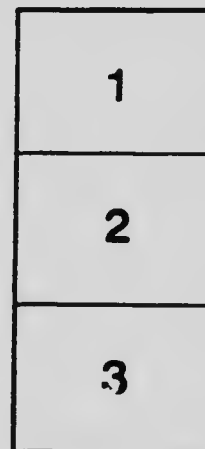
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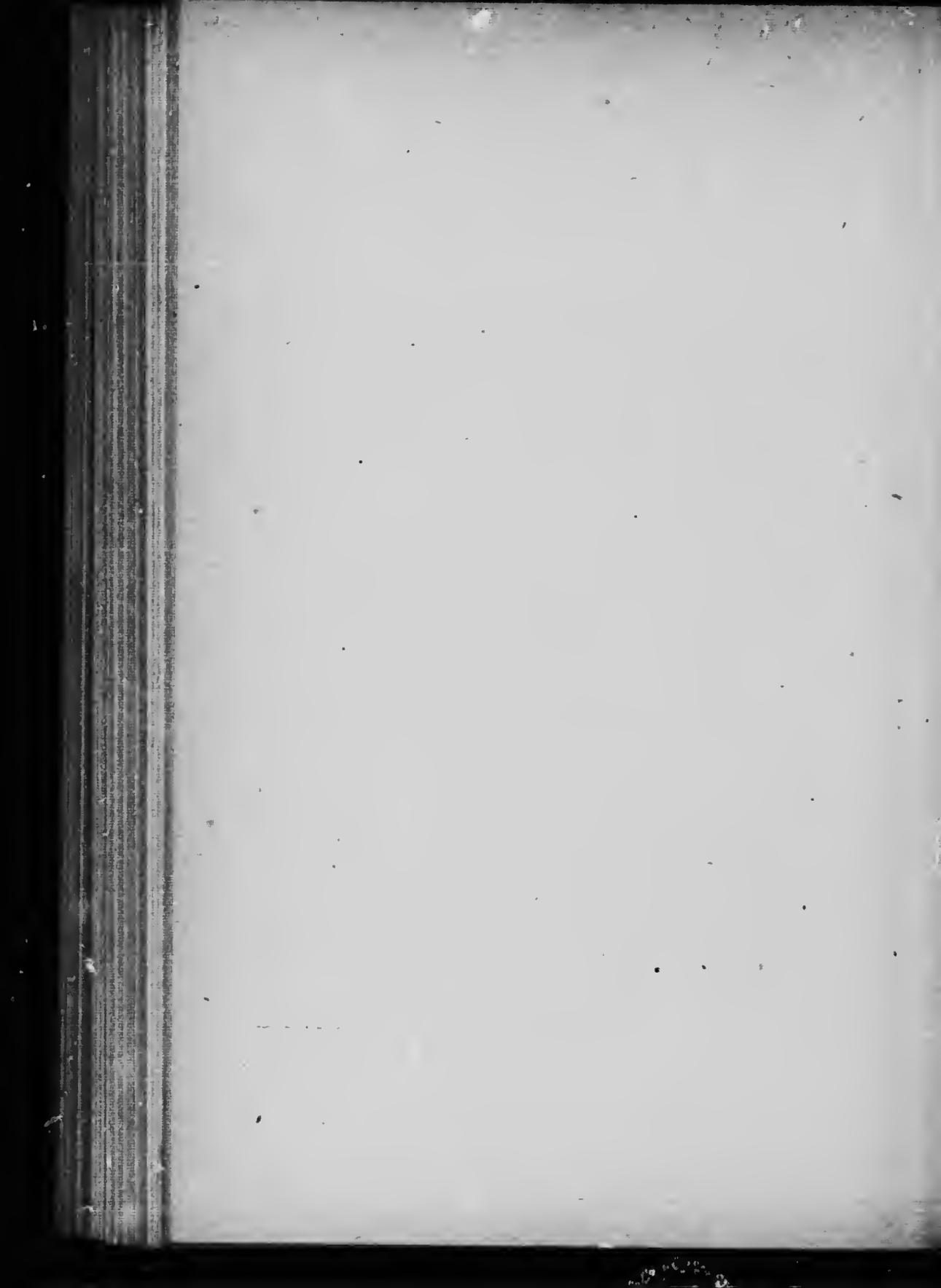
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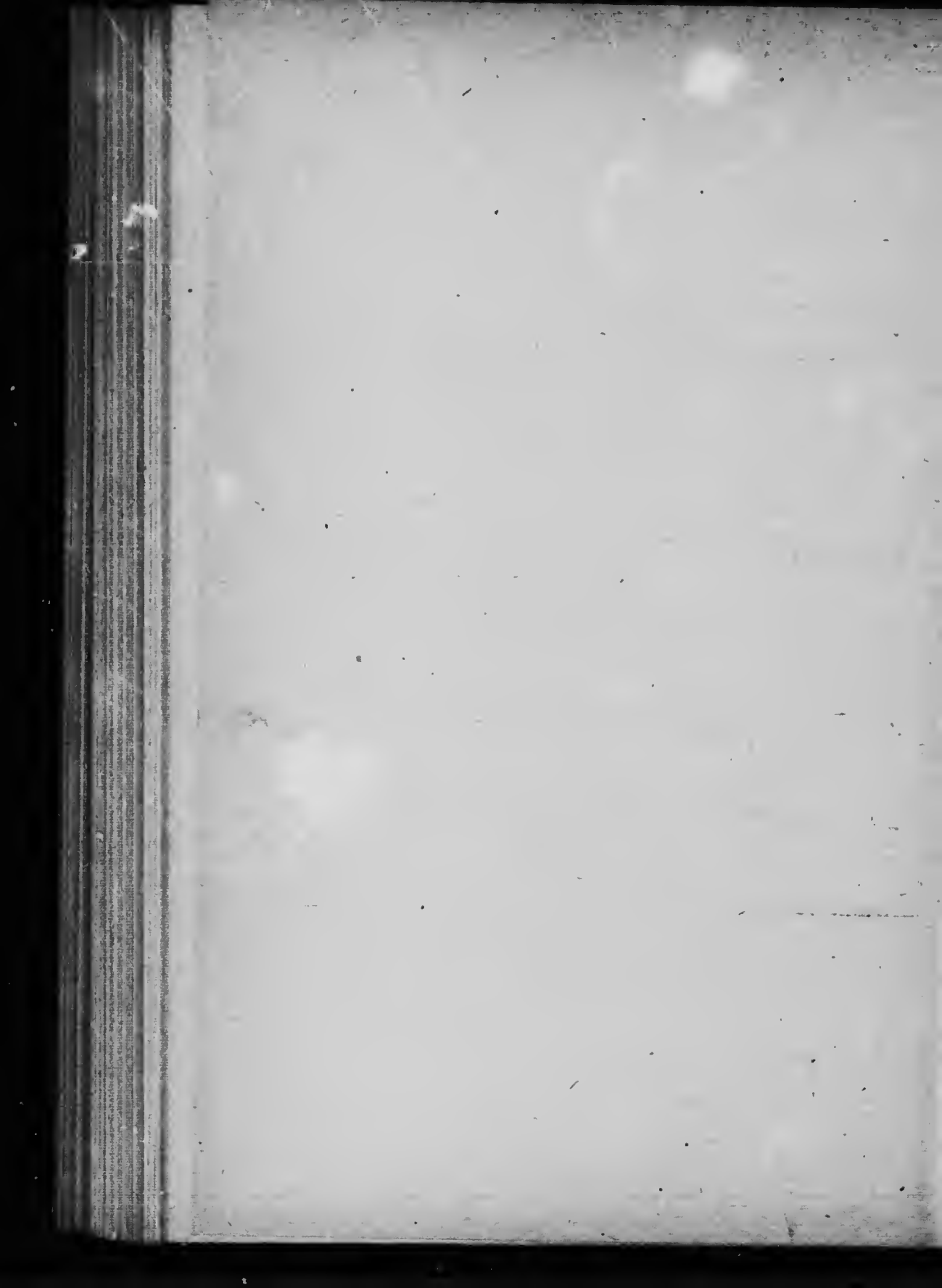




LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 371

"NATURE'S PLANT FOOD"



NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such a nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered in series.

A. MCGILL,
Chief Analyst.

LABORATORY

OF THE

INLAND REVENUE DEPARTMENT

BULLETIN No. 371

"NATURE'S PLANT FOOD"

OTTAWA, 13th April, 1917.

J. U. VINCENT, Esq. K.C.,
Deputy Minister of Inland Revenue.

SIR,—I would respectfully call your attention to a gross fraud sought to be perpetrated upon the farmers of Canada by the sale of an article offered as Nature's Plant Food; the manufacturers having their Canadian Agency at Chatham, Ont.

The article in question is merely a crushed rock of the Syenite type, such as exists in limitless quantity at very many places in Canada, where it is used for macadamizing roads, and other purposes. I cannot call it a pulverized rock, since a sample examined from this point of view, in these laboratories, gives the following results:—

Fineness.	Passes 100 mesh sieve.....			50.9 p.c.
	" 80	"	9.0 "
	" 60	"	5.0 "
	" 40	"	6.1 "
	" 20	"	12.2 "
	Held by 20 mesh sieve.....			16.8 "
				100.00 "

Basic phosphate and other slags, having vogue as fertilizers, are required to be ground so that at least 80 per cent passes the 100 mesh sieve, and the whole, as a rule, passes the 80 mesh sieve.

The same material was sold at various places in the United States as "New Mineral Fertilizer"; and the Director of the Maine Agricultural Experiment Station, at Orono, made a test of it in 1911. The results in detail are published in Bulletin No. 209 of the above mentioned station, and copies may be had by addressing Dr. Chas. D. Woods, Director. The following quotation shows results obtained on plots which were planted to potatoes and corn, and in each case treated as indicated.

1. No fertilizer was added.
2. A complete fertilizer w. added.
3. The so-called New Mineral Fertilizer was added.

	Total Crop.	Pounds.
	Potatoes.	Corn.
1. Without any fertilizer	285	175
2. With good fertilizer	346	450
3. With New Mineral Fertilizer.....	285	145

Our Fertilizers Act is intended to protect the farming industry by requiring that no fertilizer shall be sold unless it is registered, and carries a statement of its actual content in fertilizing material. Most, if not all, the States of the American Union, take the same precautions. It is in consequence of this that the promoters of this fraudulent enterprise have found it necessary to change the original name, and to describe their product otherwise than as a fertilizer.

Nevertheless, the material is actually sold as a fertilizer, and described to the farmer as such. Thus, a pamphlet published by Nature's Plant Food Co. contains the following statements: at page 9, "Why plant two acres of half fertilized corn, when by using our Plant Food you can raise more and better corn on one acre of ground? Nature's Plant Food can be applied to all growing crops by surface application, clear up to the time of harvesting and every application will show immediate results by forcing the plants to a more vigorous growth and greater yield." Page 15. "Nature's Plant Food, insures crops of palatable, finely flavoured vegetables, and juicy, aromatic, wholesome fruit." "If the land is in ordinary good condition and a general crop is to be raised, we advise using this Plant Food at the rate of 1,000 or more pounds to the acre." Page 15. "Strawberries; when setting out new vines, work about one ten per acre of this Plant Food into the top soil." Page 19. "This Marvellous Food contains the very minerals the soil craves, and the plants must have." Page 49. "As the source of the potash and the soda for the sugar beets, we can only consider Nature's Plant Food, which, thanks to God, is contained to a very slight degree in many soils, while the nitrogen is furnished by the atmosphere."

I hold that the above quoted statements, with numerous others, do convey to the reader, the idea that the article is a fertilizer, and that they are written with this intention. The whole trend of its advertising is to make the farmer believe that it is to all intents and purposes, an agricultural fertilizer; and anyone who purchases the material will, to that extent, be certain to curtail his purchase of really valuable fertilizers.

It is, in reality nothing more than crudely pulverized rock, such as may be obtained from the siftings of any stone pile, where Syenite has been crushed for road making, and is not even ground to any uniform degree of fineness.

As a fact, nature's true plant food consists of the gases of the atmosphere, rain water, and the soluble constituents of fertile soil. Many soils are deficient in the more soluble ingredients, namely compounds of nitrogen, phosphorous and potassium, and less frequently of calcium. For this reason manufactured fertilizers seek to supply the missing substances. Compounds of nitrogen are normally the most costly of these, but for the last year or two, potassium compounds are held at excessively high prices. The article now under consideration contains no nitrogen, and traces only of phosphorous and potassium; these traces being locked up in compounds which make them practically useless in agriculture. The other ingredients of this article are normally present in sufficient quantity in all ordinary soils, and their purchase at any price, is unwarranted, while at \$30.00 per ton, the matter becomes sheer waste of money.

It would be bad enough, at any time to spend money for worthless material, under the delusion that one was buying an agricultural fertilizer; but it becomes a positive crime just now, when because of the conditions we are asked to make our farms as productive as possible. The purchase of this material is not only buying that which has no agricultural value; but he is thereby prevented from purchasing effective fertilizers; and losing the season.

Mr. Inspector Forde of this Department has just returned from Rumford, Maine, where the company is stated to have its mills. He reports that a nickel mine, some ten and a half miles from Rumford, was closed down six or seven years ago, and was re-organized later by a Mr. McCrellis, with a view to selling the crushed rock as New Mineral Fertilizer. A number of farmers and others, in the locality were interviewed, and without exception denounced it as a fraud. A few of the statements made may be quoted:—

Mr. James S. Morse, member of the State Legislature, says: "They have prohibited the sale of it in the State of Maine, as it is absolutely no use."

Mr. Jerry Martin: "Have tried the stuff; it is no good; don't ask me to recommend it; my crops were much better where none was used."

Mr. F. A. Coffin: "Yes, I have used this fertilizer, and consider it useless. I might just as well grind up the rock on my own farm, and use the money."

Mr. T. J. Goddard: "Have used the stuff; it is no use; spoiled my crop; it is only a fake."

Mr. Allen, of Allen, Sterling and Lothrop: "We sell several kinds of fertilizers, but never handle this particular one, as we know it to be a fake."

It seems scarcely necessary to quote further; because the fraudulent character of the article is sufficiently indicated in the way it is advertised.

Most of the statements made in the pamphlets are garbled extracts from various publications, and many of them are patent falsehoods. Thus, on page 26 of the larger pamphlet is the following: "I have recently had one of the best chemists in Boston make careful tests as to the solubility of the material, with nothing but pure rain water. He found, in five days' time, after filtering through a filter paper, that 5.9 per cent had become soluble, without changing the water in the test tube. In fourteen days, 17 per cent went into solution with pure rain-water. In twenty days, 27 per cent went into solution". It goes without saying, that rocks of this kind are insoluble in rain-water; and it is because of their insolubility in rain-water that they persist. In order, however, to meet the above ridiculous statements by direct evidence, I caused the actual test to be made, and found the water soluble matter, in five days, to amount to 0.005 per cent or less than one-tenth of one per cent.

In a land of free speech like ours, where every fad, social, religious, political, or other, has its apostles, it need not be regarded as wonderful that even the legitimate use of fertilizers should find voluble opponents. I am aware that advocates of so-called "clean culture" are in evidence (see Simpson Morgan in *The Vegetarian* for March 1917, reprinted in *Chemical News* of March 16th, 1917.) But the advocacy of this absurdity is one thing, and the attempt to sell by fraudulent means a broken rock at fifty times its value is quite another thing.

As the spring season is upon us, and the demand for fertilizers is very great, I would respectfully press upon you the necessity of immediate action, in the interests of our farmers, who are having this useless article pressed upon their attention by self-interested agents. I would suggest the immediate publication of this letter, in an edition of 10,000 copies; and ensure its effective distribution by our agents, and through the manufacturers of registered fertilizers. Agricultural papers will doubtless give it additional publicity.

I would respectfully recommend publication of the report as Bulletin No. 371.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

