

While negative phototropism in *Diaptomus* can be reversed by acids, positive phototropism brought about by chemical means can not be reversed by strychnin (atropin or caffein).*

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THE UNIVERSITY OF CALIFORNIA,
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THE POWDERY SCAB OF POTATO (*SPONGOSPORA SOLANI*) IN MAINE

THE potato tuber scab caused by *Spongospora Solani* (Brunch) has been known in Europe since 1842. It was recently reported from Canada by Güssow,¹ but has hitherto not been found in the United States. That it would become established here has been feared by those acquainted with the serious injuries it causes in Great Britain, whence heavy importations of potatoes were made in 1911 and previous years, to supply American markets.

The writer discovered this disease on June 23 in potatoes just brought to Houlton from Presque Isle, Aroostook County, Maine. There is no probability as yet that a large amount of *Spongospora* exists there, but 84 diseased tubers were sorted out of four barrels, which represented a lot of 500 barrels.

The milder forms of powdery scab resemble the common *Oospora* scab. The pustules are at first closed, but later break out into large open sori. Twenty-six of the tubers collected showed this form.

The source of the disease is not known. The original infection may have been brought from Europe before the Plant Quarantine Act went into effect or seed potatoes bearing the disease may have come from the adjacent province of New Brunswick, in Canada, where powdery scab already occurs.

It is hoped that pathologists all over the country will now watch for this disease and that every effort be made to stamp it out.

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* Moore, A. R., loc. cit.

¹ *Phytopathology*, February, 1913, p. 18.

A NEW SECTION SOUTH FROM DES MOINES, IOWA

THE grading of a new railroad line from Des Moines to Allerton, passing from Polk County through Warren, Marion and Lucas into Wayne County, affords an excellent series of exposures such as have never before been available in this region. The relation which this series makes evident assists in the interpretation of observations already recorded, and the section itself serves as a standard with which to compare work yet to be accomplished in south central Iowa and adjacent Missouri. The general relation will be of interest to all who keep informed on the Pleistocene work of the country.

The Loess

The best exposure of loess that the writer has seen in this portion of the state is south of Des Moines, half a mile north of Coon Valley. Here twelve to fifteen feet of grayish yellow porous loess with faint horizontal lamination may be seen capping the bluff for a quarter of a mile. At the two ends of the cut the loess is exceedingly fossiliferous, and charged with concretions. In the hills east of Carlisle, even as far as Hartford, a distinct fossiliferous loess may be seen; but further south it does not form a conspicuous deposit. On the brow of hills away from the highest portion of the upland it is not present at all.

The "Gumbo"—The Loveland

Along the sides of all cuts through the upland may be seen a clay yellowish above, bluish below, of a thickness varying from a few feet up to perhaps twenty feet. It is nearly free from pebbles, but here and there a few scattered ones may be found that are half an inch in diameter, and very rarely one as large as an inch. Two were recently found as large as two inches in diameter. There are found scattered through the clay grains chiefly of granite about an eighth of an inch in diameter. The clay is generally free from distinct stratification, often silty in appearance, and slumps badly throughout the entire length of the railroad. In the upland where thickest it is found on the boulder and pebble-bearing portion of the Kansan drift with no