Rosen himself thinks that "if nematodes are present, then the use of organic matter in such soil will not remove the possibility of wilt development, although it may partially alleviate the losses that might be incurred by stimulating the growth of the plant."

It is thus apparent that there is fundamentally very little difference in the three views in so far as they relate to the practical use of organic fertilizers in cotton wilt control under usual field conditions. Rosen's present important work will doubtless stimulate further detailed investigation of the effectiveness of organic matter in the control of cotton wilt in the field, and it is hoped will lead to more extensive practical use of such material by cotton farmers, as has always been recommended as good practice by the pathologists of the U. S. Bureau of Plant Industry.

In this general connection reference may be made to the recent work by C. J. King and H. F. Loomis, of the U. S. Bureau of Plant Industry, on the control of cotton root-rot caused by *Phymatotrichum* (*Ozonium*) *omnivorum* (*Jour. Agric. Res.*, 32: 297–310, 1926), which is summarized in part as follows: "Experiments conducted in the Salt River Valley and at Sacaton, Arizona, to test the effects of manure and other organic materials on the control of root-rot have consistently shown a reduction in the infected area and the number of cotton plants dying from the disease following the treatment."

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PLASMA CALCIUM

ACCORDING to the observations of Dr. J. B. Collip as reported in *The Journal of Biological Chemistry*, Volume LXIV, June, 1925, the thyroparathyroidectomized dog is no more responsive to the plasma calcium-raising principle contained in a hydrochloric acid extract of bovine external parathyroid glands than the normal dog.

Several tests on the effect of such an extract, prepared according to the method of the writer, have convinced us that the thyroparathyroidectomized albino rat is much more responsive to the calcium-raising principle than the normal albino rat.

The parathyroid preparation used in these tests was one which had previously been standardized by testing its reaction on normal dogs. Fifteen milligrams of the preparation in 0.85 per cent. sodium chloride solution produced an increase in the plasma calcium of a 12 to 13 kilogram dog, 3 to 4 milligrams, 15 to 17 hours following subcutaneous administration.

The potency of this preparation is further illustrated by citation to an experiment in which 60 milligrams was administered, in four doses of 15 milligrams each, to a 13.6 kilogram dog, during the course of 48 hours. During that time six plasma calcium determinations were made. The initial calcium value was 11.85 and the terminal value at which death occurred was 26 milligrams per 100 cc. of plasma.

When 15 milligrams of this preparation was administered to several normal albino rats, no noticeable increase above the normal value was found after seventeen hours. Thirty milligrams administered in two equal doses seventeen hours apart were necessary to produce an increase of approximately 5 milligrams in the plasma calcium of a normal rat.

Nine milligrams of the preparation was found to double the plasma calcium of a thyroparathyroidectomized rat of approximately the same weight, while 15 milligrams gave a value of 17.5 milligrams per 100 cc. of plasma.

We also found that as in the dog the plasma calcium value of the rat begins to drop very soon after parathyroidectomy. After reaching a value between 5 and 8 milligrams per 100 cc. of plasma, the calcium value has been found the same 200 days following thyroparathyroidectomy.

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THE ANCIENT AMERICAN CIVILIZATIONS AND CALENDARS

UNDER the above title and within a period of eight months I recently made a communication, consecutively, to the British Association for the Advancement of Science in Oxford, the International Congress of Americanists in Rome, the Anthropological Society of Washington, D. C. and the Sociedad Cientifica "Antonio Alzate" in Mexico City.

In this communication I first pointed out that all the ancient American centers of civilization were situated between the tropics; that within this zone the year consists of two seasons only: the dry and the wet and a striking phenomenon occurs, namely, the passage of the sun through the zenith twice a year, at irregular intervals, according to the differences of latitude.

I next submitted irrefutable historical, documentary, archeological and pictorial proofs that the ancient astronomer-priests, inhabiting even widely separated parts of this tropical zone, observed the phenomenon by means of gnomons consisting of upright poles, stelae, pillars, altars or constructions with vertical walls, and interpreted the periodically recurring total disappearance of their shadows about noon, as