

from ocular sparganosis in French Indo-China, where a like custom is practiced to "relieve" severe conjunctivitis. To test out the assumption that any sparganum will infect the orbit the writer applied spargana of *D. erinacei*, freshly obtained from the hedgehog in Peking, to the conjunctiva of a dog, and was able to observe the invasion of the larvae through the conjunctival membrane and the development in this animal of a severe inflammatory process, which continued for several days, when the dog was sacrificed. Other experiments in susceptible hosts such as the dog indicated that the spargana when introduced aseptically into the thigh muscles were able to multiply asexually over a period of several months. In rabbits in which a similar experiment was performed no increase was observed although the original number of worms was recovered after 5 months.

These series of experiments show definitely that there are several species of spargana in China, just as in other parts of the Orient, that the cat and the dog and their wild relatives are the natural hosts of the adult worms, and that man, except in the case of *Diphyllbothrium houghtoni*, is not subject to infection with the adult worm. Furthermore, the natural hosts of the spargana are a wide variety of vertebrates, which presumably become infected from ingesting the infected first intermediate host of the worms (Cyclops). Although the evidence is not conclusive it favors the view that human sparganosis results from applying frogs infected with these spargana to inflamed and ulcerated areas of the body.

4245

Vitamin A and B Content of Canned Sweet Potatoes.

S. N. BLACKBERG. (Introduced by J. T. Halsey.)

From the Department of Pharmacology, Tulane University.

Although sweet potatoes are an important constituent of American diets, information regarding their vitamin content is almost entirely lacking. With but the one exception,¹ dealing with vitamin C, no reference was found to any work on the vitamin content of this food.

The sweet potatoes used in these experiments were a yellow variety which were commercially canned in southern Louisiana, pur-

¹ Peck, E. C., *China Med. J.*, 1924, xxxviii, 125.

chased on the open market. The rats used were young, vigorous, normally growing litter-mates of the uniform Wistar Institute strain.

The plan of experimentation was to feed the negative control groups the following diets:

Lacking vitamins A and D:

Casein	20 parts
Starch	68 "
Adequate mineral mix	4 "
Agar-agar	2 "
Dried yeast	6 "

Lacking vitamin B:

Casein	20 parts
Starch	72 "
Adequate mineral mix	4 "
Agar-agar	2 "
Cod liver oil	2 "

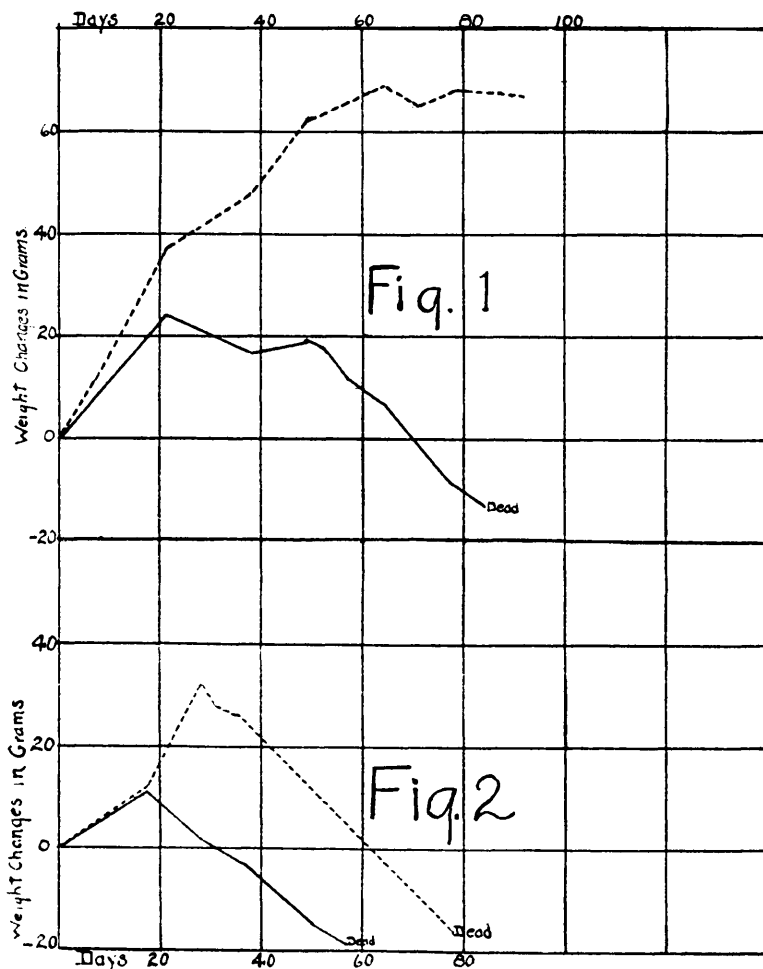


FIG. 1. Dotted line average growth of curve of rats receiving vitamin A only in the tested sweet potatoes. Continuous line — average growth curve of rats receiving no vitamin A.

FIG. 2. The same as in Fig. 1, for vitamin B.

For the test groups 25 grams of the starch was replaced by an equal weight of the canned sweet potatoes. No attempt was made to differentiate between the 3 components of vitamin B, or to ascertain the influence of the antirachitic factor apart from that of vitamin A. The results of such differentiation will be reported at a later date.

As shown by the average growth curves of the various groups, when canned yellow sweet potatoes constituted 25% of the weight of the total diet, the vitamins A D present were sufficient to induce a much more rapid and prolonged rate of growth in the rats than did the diets lacking these vitamins but otherwise adequate. The vitamin B present also produced a distinct prolonged rate of growth, but much less than occurred in the vitamin A experiments.

These findings indicate the presence of an abundance of vitamin A and a small amount of vitamin B in the canned sweet potatoes tested.