the experimental scurvy of guinea pigs is attributable to failure of normal intestinal movement.

Preliminary experiments on the nutritive qualities of desiccated vegetables indicate that the *drying* of fresh cabbage does not entirely remove its antiscorbutic property.[1]

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The effect of the respiration of putrid gases upon the growth of guinea pigs.

By C.-E. A. WINSLOW and DAVID GREENBERG.

[*From the Department of Public Health, Yale School of Medicine.*]

Three years ago Mr. G. T. Palmer and the senior author reported here a series of experiments on human subjects conducted by the New York State Commission on Ventilation which indicated that "there are substances present in the air of an unventilated occupied room (even when its temperature and humidity are controlled) which in some way, and without producing conscious discomfort or detectable physiological symptoms, diminish the appetite for food.[2]

A natural assumption would be that odoriferous materials contributed to the stale air by the bodies and clothing of the occupants might produce such an effect upon appetite; and the present study is an attempt to detect a possibly analogous effect of putrid odors of a more intense kind upon the growth of guinea pigs.

A galvanized iron box 4 feet wide, 2 feet deep and 3 feet high was constructed and divided into two equal vertical compartments, each holding two standard animal cages and each provided with a separate glass door. Fresh air to the amount of 1.5 cubic feet per minute for each compartment (amounting to 4 liters per minute per animal) was supplied to the box by a small centrifugal fan, the supply to each section of the box being carefully regulated by dampers. On the course of the branch duct leading from the fan to one section was inserted a chamber in which was placed a pan of fresh moist human or dog feces, so as to produce a strong fecal odor in that section of the box.

[1] See succeeding abstract.

[2] PROC. SOC. EXP. BIOL., Vol. XII, p. 141.

Fifteen different series of tests were conducted with this apparatus during the years 1916, 1917 and 1918, 261 animals in all being used. Young guinea pigs were selected, usually weighing between 150 and 300 grams, and they were kept under the experimental conditions for from 4 to 24 days, being weighed each day. Food supply and other conditions were of course maintained constant in the two compartments.

The results for individual series were somewhat variable, but in general it was evident that the animals exposed to the fecal odor did not grow as fast for the first week as did the controls. Later however they gained more rapidly and by the end of two weeks had generally caught up. This relation appeared in 12 of the 15 series, while in the other 3 no initial check in growth rate was observed.

Calculating the ratio between the weight of the animals exposed to the odor and the weight of the control animals for each day of each series, and then averaging these ratios (which seems a legitimate procedure under the conditions of the experiment) we obtain the general averages tabulated below.

RATIO OF PER CENT. GAIN OF GUINEA PIGS SUBJECTED TO PUTRID ODORS TO CONTROL GUINEA PIGS, BY DAYS.

(Average of 15 Series.)

1	2	3	4	5	6	7	8	9	10	11	12
−10.5	−22.6	−26.8	−27.0	−14.5	−18.7	−20.1	−4.7	−7.6	−8.3	−5.6	−7.4

13	14	15
−2.2	−0.2	0

These results would seem to indicate that the breathing of putrid gases causes a real reduction in the rate of growth of guinea pigs during the first week of exposure; but that this effect is a transitory one, the exposed animals gradually becoming accustomed to the odor and attaining after two weeks a normal weight.