183 (1361)

The influence of cooking and drying cabbage on its antiscorbutic properties for guinea pigs.[1]

By MAURICE H. GIVENS[2] and BARNETT COHEN.

[*From the Sheffield Laboratory of Physiological Chemistry and the School of Medicine, Yale University, New Haven.*]

The experimental scurvy induced in guinea pigs by a special soy bean-milk-yeast-paper pulp-salt diet[3] could be prevented by a daily addition of 10 gm. *raw cabbage* along with the ration. Cabbage *cooked* for thirty minutes at 100° C., subsequently incorporated with the rest of the food, and *dried* at 65–70° C. for two days lost its antiscorbutic power. Cabbage *heated* in an oven for two hours at 75–80° C., then dried at 65–70° C., ground, intimately mixed with the food, and the whole dried further for two days at 65–70° C. exhibited no potency as an antiscorbutic. Cabbage *dried* in a blast of air at *40–52°* C. retained some of its antiscorbutic value in that it delayed markedly the onset of scorbutic symptoms. Furthermore it could be used as a therapeutic agent when the signs of scurvy were recognized early enough.

Diet.	Unmistakble Symptoms Appeared, Days.	Death Ensued, Days.
Soy bean mixture	16–26	23–30.
Soy bean mixture + 10 gm. cabbage	None up to 51 days	
Soy bean mixture + 10 gm. cabbage, "cooked"	14–22	21–34
Soy bean mixture + 1 gm. cabbage, dried 40–52° C.	32–35	39—: two pigs alive at 51 days
Soy bean mixture + 1 gm. cabbage, dried 65–80° C.	14–25	20–35

[1] These experiments were made possible by a grant from the Seessel Research Fund.

[2] Seessel Research Fellow in Physiological Chemistry, Yale University.

[3] B. Cohen, PROC. SOC. EXP. BIOL. AND MED., April 17, 1918, p. 102.