

And the 0.64 parts of dry mineral matter containing (together with other less important substances) :—

Alkalies (as oxides)	..	..	..	0.19
Phosphoric acid (i.e. anhydride)	..	..	..	0.07

Average composition of Cabbage.

(The mean of several published analyses.)

	In 100 parts by weight.			
Water	..	..	..	89.0
Dry vegetable matter	..	..	..	9.8
Dry mineral matter	..	..	..	1.2
				100.0

The 9.8 parts of dry vegetable matter consisting of :—

Albuminoid matter	..	..	..	1.5
Celluloid matter or fibre	..	..	..	2.0
Fatty matter	..	..	..	.4
Other non-nitrogenous matter	..	..	..	5.9
				9.8

And the 1.2 of dry mineral matter containing (together with other less important substances) :—

Alkalies (as oxides)	..	..	..	0.63
Phosphoric acid (i.e. anhydride)	..	..	..	0.20

The figures of these tables of the composition of the sample of cabbage, show that while the vegetable constituents are in good proportion, there is considerable deficiency of mineral matter, especially of the saline material termed alkaline phosphate. In the first place, 0.64 per cent. of mineral matter is not only about half the average proportion, but is much less than the minimum hitherto obtained from cabbage. And in the second place, only about one-third of this already small amount of mineral matter is "alkalies," whereas half the mineral matter should be of this character. Thirdly, the phosphoric acid, or rather phosphoric anhydride, is present to only about one-third the normal proportion.

As to the physiological import of so great a deficiency of alkaline phosphates in this sample of cabbage, I do not pretend to judge. At the same time, eminent authorities consider that these saline constituents of vegetables contribute very materially to the food value of the vegetables. I am of opinion that the Committee should ascertain, if possible, to what extent the cabbage contributed to the dietary of the crews. The Committee would then probably seek a medical opinion on this point.

As to the cause of the deficiency, the chemical results are suggestive of loss of juice from the original cabbage. If the fresh cabbages were submitted to pressure before drying to such an extent as to bruise the leaves and cause an outflow of juice, that would exactly explain the facts revealed by the analysis.

I may add that experiments undertaken with the view of ascertaining whether the cabbage yielded as much organic acid as a sample taken from my own garden, also pointed to loss of juice from the original cabbage.

One pound of this dried cabbage represents, in weight, seven pounds of the fresh vegetable.

4. Dried compressed mixed Vegetables.

The sample yielded :—

	In 100 parts by weight.			
Water	..	..	..	15.61
Dry vegetable matter	..	..	..	80.29
Dry mineral matter	..	..	..	4.10
				100.00