

ASH OF WHITE PEPPER.

Number of Samples.	Highest.	Lowest.	Mean.	Authority.
Unknown	1.54	0.95	.....	Ch. Girard, Second Report, 1885.
6.	3.78	1.28	2.00	C. Heisch, "Analyst," vol. xi.
7.	1.73	0.90	1.26	A. Hassall, 1875.
Unknown	.....	.....	1.85	König, "Nahrungsund Genussmittel."
do	.....	.....	1.12	A. W. Blyth, 1882.
do Batavia.	.....	.....	0.91	Pharm. Centralbl, 1883.
do Singapore.	.....	.....	0.91	
do Penang.	.....	.....	1.53	
do	2.90	0.80	.....	Röttger, Ver. du Angew, Chemic.
1.	.....	.....	0.99	Lenz, Zeit. Aust. Chemic, 1884.
Unknown	3.00	1.00	.....	Weigmann, Report Anal. Ch. 6, 399.
2.	1.41	1.34	1.37	C. Richardson, Wash., 1887.
5.	3.74	1.64	3.00	Myself.

With the exception of one sample analysed by Heisch, none of the black peppers give more than 7 per cent of ash. I am of the opinion that any sample of genuine black pepper which yields more than 7 per cent of ash should be considered too dirty to be fit for use. I have met only one instance of a whole black pepper which gave as much as 7 per cent of ash, and this sample was certainly unfit for sale. It was obtained in Ottawa in December, 1889. The following are the results of its analysis:—

One hundred parts by weight contained—

A.—Dirt and dust, separated by a sieve of 400 meshes per square inch.....	13.0
B.—Broken berries, stems and dirt, separated by a seive of 256 meshes per square inch from the residue on the former.....	1.5
C.—Small pieces of stems, leaves and earthy matter in lumps picked out by hand..	1.1
D.—Peduncles and stems in large pieces picked out by hand.....	3.8
E.—Fairly clean berries.....	80.6

100.0

Further analysis gave the numbers below:—

Portions Examined.	Moisture, &c., lost at 100° C.	ASH.					Remarks.
		Soluble in Water.	Insoluble in Water.	Total.	Insoluble in Acid.	Sand expressed as a percent. age on the total Ash.	
A.....	4.50	0.98	34.56	35.54	.....	.....	It will be seen that the ash obtained from the berries after these had been fairly well cleaned is less than 5 per cent.
B and C.....	8.88	.....	.....	.....	.....	.....	
D.....	10.64	2.45	6.21	8.66	1.33	15.	
E.....	11.45	2.07	2.75	4.82	0.71	15.	
The whole pepper calculated	10.45	.....	.....	9.37	.....	.....	

Had this sample of berries been properly cleaned before placing it upon the market its weight would have been reduced by at least 15 per cent.