

TABLE 3.

In this table I have arranged the results of analysis for 43 samples of commercial ground mace, found to contain other material than Bombay mace. In most cases this foreign matter is cereal or nutmeg starch, with turmeric.

Number.	Ash.		Extractive.			Crude Fibre.	Remarks based on microscopic examination.
	Total.	Insol.	Petrol.	Ethyl.	Total.		
55371.	1.45	0.15	18.65	24.88	43.53	3.15	Bombay mace and maize starch in large amount.
55374.	2.15	0.35	21.72	26.56	48.28	4.20	Much Bombay mace and small amount of starch.
55375.	1.85	0.15	20.06	25.10	45.16	3.95	Much Bombay mace and starch.
61893	2.45	0.25	20.70	3.34	29.04	3.80	Small amount Bombay mace with much starch.
61895.	1.85	0.15	18.58	26.22	44.80	3.70	Much Bombay mace. Considerable starch.
68103.	2.65	0.25	19.28	22.54	41.82	3.80	" " " "
68106.	2.85	0.20	18.88	10.28	29.16	4.80	Bombay mace small, much starch.
66619.	2.40	0.20	26.60	16.68	43.28	5.25	Bombay mace large amount and considerable starch.
66627.	1.75	0.15	23.66	25.48	48.54	3.10	Bombay mace much; also starch.
2698.	1.65	0.15	22.24	1.44	23.68	2.30	Much starch with turmeric.
55019.	2.00	0.25	19.47	27.72	47.19	4.80	Small amount starch much Bombay mace.
55021.	2.30	0.35	22.28	23.02	45.30	5.35	" " " "
58386.	3.25	0.25	27.16	6.64	33.80	9.80	Bombay mace little, much starch.
58387.	1.55	0.10	24.12	0.74	24.86	2.25	Large amount starch, with turmeric.
58389.	3.20	0.30	26.78	6.38	33.16	7.85	Little Bombay mace and starch.
58390.	1.55	0.10	25.02	0.74	25.76	2.30	Much starch and turmeric.
59533.	3.30	0.70	24.20	10.32	34.52	5.05	Considerable Bombay mace traces of starch.
61620.	2.20	0.45	21.84	25.58	47.42	4.65	Much Bombay mace
61625.	1.90	0.25	19.08	21.24	40.32	3.50	" " little starch.
61641.	1.45	0.15	17.56	18.92	36.48	3.05	" " some starch.
61935.	2.05	0.10	27.66	17.44	45.10	3.65	Considerable Bombay mace and starch.
61938.	2.30	0.45	22.12	24.00	46.12	4.70	Much Bombay mace, little starch.
62362.	2.05	0.10	25.56	0.58	26.14	3.20	Much starch and turmeric.
63253.	2.45	0.15	20.08	10.52	30.60	4.35	Considerable Bombay mace and starch.
63296.	2.70	0.35	23.08	21.60	44.68	4.95	Much Bombay mace, little starch.
63709.	1.95	0.20	19.06	28.76	47.82	4.35	Much Bombay mace and starch.
64021.	2.45	0.30	20.88	1.92	22.80	3.35	No Bombay mace much starch.
64023.	2.40	0.45	16.60	19.48	36.08	4.35	Much Bombay mace and starch.
66164.	1.81	0.17	26.78	17.50	44.28	.....	" " and some starch.
61414.	2.12	0.20	23.70	9.32	33.02	3.35	Some Bombay mace and starch.
58402.	.....	.....	24.48	1.16	25.64	.....	15 to 20% wheat starch.
58405.	.....	.....	23.80	1.68	25.48	.....	" " " "
70261.	.....	.....	20.92	12.50	32.52	.....	20 to 30% Bombay mace and starch.
70263.	.....	.....	23.04	26.68	49.72	.....	60 to 35% " " "
70264.	.....	.....	18.96	25.62	44.64	.....	" " " "
70265.	.....	.....	29.54	2.84	32.38	.....	No Bombay mace. 25 to 30% starch.
58467.	.....	.....	27.50	24.00	51.50	.....	50 to 60% Bombay mace and starch.
58468.	.....	.....	27.66	1.92	29.58	.....	No Bombay mace, 25 to 30% " "
67466.	.....	.....	25.42	0.66	26.08	.....	" " 10 to 15% " "
67467.	.....	.....	25.58	2.20	27.78	.....	" " " 20% " "
67468.	.....	.....	20.18	0.36	20.54	.....	" " " " "
67469.	.....	.....	26.66	0.64	27.30	.....	" " " " "
67470.	.....	.....	40.64	0.65	41.29	.....	Is ground nutmeg.

A study of the numerical results in Table III, taken in connection with the results noted from microscopic observation, leads to the conclusion that very definite inference as to the composition of these mixtures may be drawn from the extractive.

The presence of starch decidedly lowers the total extractive; while the ethyl-ether extractive plainly indicates the presence of Bombay mace. Where this is less than about 2 per cent. the absence of any considerable amount of Bombay mace is evident; and when in excess of 2 per cent. a close approximation to the actual amount present may be derived from a comparison of the ethyl-ether extractive with the total extractive.

The refractive index of the fixed oil from Bombay mace is given by Lythgæ as varying from 1.4615 to 1.4633 at 35° C., while that from other maces varies from 1.4747 to 1.4975. The refractive indices for the fixed oils obtained from the samples included in Table 1, were read by Mr. Dawson at 35° C. and are found to be uniformly higher than the maximum limit quoted for Bombay mace oil. Unfortunately this is also true for most of the samples recorded in Table 2, many of these, even when containing very