

to be a fraction only of the natural oil. Specifications for this oil, are somewhat changed in the 1914 edition of the B. P.

	1898	1914.
Specific gravity. ....	0.870 to 0.910. ....	0.870 to 0.925.
Optical rotation. ....	Not given. ....	+13° to +30°.
Refractive index. ....		(25 C) 1.474 to 1.484.
Solubility. ....	In 1 vol. mixture equal parts absolute and 90% alcohol. ....	In 3 volumes of 90% alcohol.
Residue at temp. of boiling water. .	No crystalline residue. ....	Not to exceed 5%.

That Bombay mace must be regarded as of no value for the purposes of a spice, follows from the above quotation from the B. P. Codex. In addition I may quote Kraemer. (Pharmacognosy, 1915, p. 256.) "Bombay mace is very largely used to adulterate genuine mace." Also Bailey (Food Products, 1914, p. 451.) "Bombay mace, which is often used to adulterate Penang and other true maces, has practically no flavour, and is of little more value than so much inert material."

Leach (Food Inspection, etc., 1909, p. 467) says: "Bombay mace, is almost entirely devoid of odour or taste, being nearly as inert as so much starch. It is most properly regarded as an adulterant from its lack of pungency, even though in a sense, it is a variety of mace."

U. S. A. standards for Mace, are as follows: (Circular 19, Dept. of Agriculture, Washington.) "Mace is the dried arillus of *Myristica fragrans*, and contains not less than 20, nor more than 30 per cent. of non-volatile ether extract; not more than 3 per cent. of total ash, and not more than 0.5 per cent. of ash insoluble in hydrochloric acid; and not more than 10 per cent. of crude fibre."

"Macassar mace, Papua mace, is the dried arillus of *Myristica Argentea*." "Bombay mace is the dried arillus of *Myristica Malabarica*."

Leach (Food Inspection and Analysis, 2nd edition, p. 466) quotes the following analytical results, obtained by Winton, Ogden and Mitchell upon samples of the three kinds of mace specified in the above standards:

1. True mace (means of 4 samples.)
2. Macassar mace.
3. Bombay mace.

	1	2	3
Moisture. ....	11.05	4.18	0.32
Ash total. ....	2.01	2.01	1.98
Ether extract, volatile. ....	7.58	5.89	4.65
" non-volatile. ....	22.48	53.54	59.81
" total. ....	30.06	59.43	64.46
Alcohol extract. ....	23.11	32.89	44.27
Reducing matters by acid conversion, as starch. ....	31.73	10.39	16.20
Starch, by diastase. ....	27.87	8.78	14.51
Crude fibre. ....	3.20	4.57	3.21
Nitrogen x 6.25. ....	6.47	7.00	5.06

It will be noted that true mace is sharply distinguished from the other maces by its non-volatile ether extractive, which is much less than that yielded either by Macassar or by Bombay mace.