

Letter to the Editors

Dear Sirs,

Lipid Composition of Fenugreek (*Trigonella foenum-graecum* L.) Seeds (Hemavathy & Prabhakar, 1989).

Hemavathy and Prabhakar (1989) have recently reported very low concentrations of octadecatrienoic acid (18:3) in all fractions of lipids extracted from fenugreek seeds. These results contradict an earlier report that the fatty acids of fenugreek seed oil contain *c.* 30% of 18:3 (Varshney *et al.*, 1980).

We have analysed the oil from two fractions from milled fenugreek seeds. The seeds were passed through a 'Ripple-Flo' mill (Pellet Technology, Pty Ltd, Dulwich Hill, NSW, Australia). Fraction I (*c.* 50% of the original seed) contained mainly testa and endosperm. Fraction II (the remaining 50%) contained cotyledons and radicle. The total lipids of each fraction were extracted with diethyl ether. A portion of each sample was transmethylated (Glass & Christopherson, 1969) and the methyl esters of the fatty acids analysed by gas-liquid chromatography as described by Fogerty *et al.* (1986). The total lipid content and percentage of 18:3 for each fraction are given in Table 1.

The very low values for 18:3 reported by Hemavathy and Prabhakar (1989) would appear to have resulted from loss of 18:3 by autoxidation during extraction and analysis. In analysing for unsaturated fatty acids, extreme care must be exercised to avoid oxidation and it is usual to add an antioxidant, such as BHT (Johnson, 1971).

TABLE 1
Lipid Content and Percentage of 18:3 in Milled Fractions from
Fenugreek Seeds

<i>Fraction</i>	<i>Total lipids (%)</i>	<i>Percentage of 18:3 in total fatty acids</i>
I	4.7	8.9
II	12.5	29.0

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(Received 9 March 1989)