

COMPOSITION OF AUSTRALIAN INDIGENOUS FOODS

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Results are presented for the analysis of 136 Australian indigenous food species. James et al. (1982) reported proximate analysis with energy, ascorbic acid and thiamin for 81 of these species. Results are now presented for a further 55 species. Sodium, potassium, magnesium, calcium, zinc, copper, iron, lead and cadmium results are also presented for 43 species.

Methods of analysis are described in James et al. (1984). Trace metals were determined by wet-ashing and atomic absorption spectrophotometry.

Apart from the very high levels of ascorbic acid and thiamin previously reported (James et al. 1982), protein, fat, moisture, ascorbic acid and thiamin levels were similar to those of western foods of the same food category.

Compared to western fruits and vegetables (Paul and Southgate 1978) many indigenous plant foods were found to contain high levels of essential trace metals. Significant numbers of indigenous plant foods contained at least 25% of the Recommended Daily Intake per 100g, of calcium, potassium, iron and zinc. Several plant foods were also found to contain substantial quantities of copper or magnesium, or both. Sodium levels were similar to those of western fruits and vegetables.

Although mineral and trace metal contents of plants are likely to be variable, depending on such factors as composition of the soil, the results indicate a trend to relatively high levels of some essential trace metals in indigenous plant foods.

Lead and cadmium, potentially toxic trace metals for which no requirement has been shown, were present in low concentrations.

Mineral and trace metal levels in seven animal species were generally similar to those of western meats (Paul and Southgate 1978). However, iron was present in extremely high amounts in three species.

Analysis of repeat samples showed that significant differences can occur between samples. This applies to a greater extent when the repeat samples are from different seasons than is the case when both samples are from the same season.

The results confirm our earlier conclusion that many indigenous species are potentially useful as survival aids.

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