Broadley, M R, Chilimba, A D C, Joy, E J M, Young, S D, Black, C R, Ander, E L, Watts, M J, Hurst, R, Fairweather-Tait, S J, White, P J, and Gibson, R S. 2012. Dietary requirements for magnesium but not calcuim are likely to be met in Malawi based on national food supply data. *International Journal of Vitamin and Nutrition Research*, Vol. 82, 192-199.

Mineral malnutrition is widespread in sub-Saharan Africa but its extent is difficult to quantify. Using Malawi as a case study, the aim of this work was to investigate the adequacy of calcium (Ca) and magnesium (Mg) nutrition by combining national food supply and food composition data with a new spatial survey of maize grain. Non-maize dietary sources of Ca and Mg were estimated using existing food supply and composition data. Calcium and Mg concentrations in maize grain were determined at 88 field sites, representing > 75 % of Malawi’s land area in terms of soil classification. Median maize grain concentrations from the survey were 34 and 845 mg kg-1, representing a per capita supply of 12 and 299 mg d-1 of Ca and Mg, respectively. Combining these data with food supply and composition data reveals that average Ca nutrition is likely to be inadequate for many individuals, whereas average Mg nutrition appears adequate. Optimal supply of Ca per capita depends critically on balanced food availability and choice. Since maize grain sourced from highly calcareous soils is still unlikely to deliver > 5 % of estimated average requirements, agronomic solutions to rectify Ca malnutrition via maize are limited, in comparison with strategies for dietary diversification.

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