

20. Nutritional and Phytochemical composition of *Catha edulis* (Miraa, Khat)

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Abstract

Catha edulis, (Khat, Miraa) is a plant where fresh leaves and soft twigs which are chewed and release a juice containing cathinone and cathine, the active chemicals that stimulate and alter the mood of the user. However, there has been negative information regarding Khat due to limited scientific data on nutritional, chemical and phytochemical composition of Khat. Most users don't know the specific nutrients of miraa if any and their quantities. This study aimed at determining the nutritional and phytochemical composition of miraa. The study involved the analysis of different grades of miraa purchased from the local community. The protein was determined by Kjeldahl method, ash was determined by dry ashing, moisture was determined by oven drying, fats was determined by Soxhlet method, Vitamin C was determined by DCPIP indophenol method and carbohydrates by difference. The total phenolic content was determined using Folin–Ciocalteu method. The composition of the miraa samples were as follows; moisture content 71.35%, protein content; 0.0051%, ash; 2.77%, fibre 21.046%, fat; 0.098%, carbohydrates; 4.731%, Vitamin C; 2.310 mg/100g, Total phenolic content; 0.56 mg of GA/g of extract and tannins; 3.27mg/100g. Although the nutritional composition of Miraa is not high, it contains substantial macronutrients and phytochemicals. This data contribution serves as the groundwork to understanding the nutritional and phytochemical composition of *Catha edulis* (Khat).

Keywords: Khat, Miraa, *Catha edulis*