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COMMERCIAL, COOKING AND EATING QUALITY TRAITS AND NUTRIENT VALUES OF LOCAL MIXED BLACK AND WHITE RICE FROM YOGYAKARTA

Mary Astuti^{1)*}, Sri Kanoni¹⁾, Mega Mustika¹⁾, Oki Krisbianto²⁾

¹⁾Faculty of Agriculture Technology, Gadjah Mada University, Flora St. 1, Yogyakarta, Indonesia– 55281.

²⁾ Present address: Faculty of Agriculture Technology, Ciputra University, UC Town, Citraland, Surabaya, Indonesia – 60219.

^{*)} Corresponding author. Tel: +6-285-729-707-222; E-mail: ana_food@yahoo.com.

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Abstract

Black rice has higher anthocyanin content and other nutritional values than white rice but is not preferable as a staple food by Indonesian people especially because of its aroma and texture. Mixing black rice with white rice was expected to increase its cooking and eating qualities but might affect its commercial and nutritional qualities. Local cultivars of black rice Cempo Ireng and white rice Mentik Wangi were mixed at ratios 1:0 (S1), 3:1 (S2), 1:1 (S3), 1:3 (S4) and 0:1 (S5) w/w. The raw and cooked mixed rice were physically, chemically, physicochemically and sensorily analyzed to determine its commercial, cooking, eating and nutritional qualities. The addition of white rice increased the cooking and eating qualities of mixed rice but reduced its nutritional value. It had been suggested that the ratio of black rice and white rice must not lower than 1:1 to preserve its eating and nutritional qualities.

Keywords: black rice, mixed rice, cooking quality, eating quality, sensory.

Practical Applications

The positive effect of black rice for health has been demonstrated. Along with the growing of public awareness for health, especially in Indonesia, the demand for black rice is increasing but has been limited by consumers' acceptance for its texture and flavor. That has become a consideration for consumers especially the diabetic patients to consume black rice as staple food. This study may give useful information for, but are not limited to, health providers, nutritionists, dietitians, general public and patients, and even distributors of mixed black and white rice package.

Introduction

Diabetes melitus has been known as the mother of disease because it may initiate another metabolic diseases such as hypertension, cardiovascular diseases, kidney failure and blindness (DPPTM, 2008). A research by Wild *et al.* (2004) found that Indonesia had become the fourth country with the most people with diabetes worldwide. Further research by BPPK (2013) found that Yogyakarta was Indonesian province with the highest prevalence of diabetes which was diagnosed by doctors.

Despite their fondness towards sweet foods such as *gudeg*, people from Yogyakarta are well aware of their health. One of their efforts is to change their staple food (white