

Seed quality, physical properties and proximate compositions of Adan rice

ABSTRACT

In the presence study, Adan rice was evaluated for seed quality, some physical and proximate compositions. The seed purity and moisture content and germination was $99.76 \pm 0.07\%$, $10.53 \pm 0.50\%$ and $91.33 \pm 1.29\%$ respectively. Adan rice seed took minimum 4 days to fully germinate. The physical properties of Adan Rice were evaluated at $12.03 \pm 0.14\%$ moisture content. The length, width, thickness, 1000 grain weight, geometric mean dimension, surface area aspect ratio, and bulk density were 8.60mm, 2.13 mm, 1.67 mm, 15.28 g, 10.22mm, 27.04 24.83%, 0.50 ± 0.01 g/ml respectively. Proximate composition analysis assessment was done using Association of Official Analytical Chemists (AOAC) method. The moisture content, ash, protein, fat, carbohydrate and fibre were 10.43%, 0.50%, 6.30%, 0.22%, 81.49% and 5.61%. Gelatinization temperature was determined by using alkali-digestion test. Adan rice has an intermediate gelatinization temperature.

Keyword: Adan rice; Seed quality; Physical properties; Proximate composition