

**Title** Comparison of quality characteristic, GABA content and amino acid in MR 219 and Taiwan GABA rice

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### **Abstract**

The aim of this study to investigate the quality characteristic, GABA ( $\gamma$ -aminobutyric acid) content and amino acid in MR 219 GABA rice as compared with GABA rice produced in Taiwan. The result indicated that water activity, hunter L, a, b, dietary fiber, moisture content and GABA different significantly ( $p < 0.05$ ) between MR 219 GABA rice and Taiwan GABA rice. GABA content in MR 219 GABA rice (35.59 mg/100g) was significantly higher ( $p < 0.05$ ) than Taiwan GABA rice (12.60 mg/100g). In MR 219 GABA rice, free amino acid contents were increased after soaking and germination treatment of MR 219 brown rice. However the result showed that glycine, histidine, threonine, tyrosine, valine, methionine, isoleucine and phenylalanine did not differ significantly between MR 219 brown rice and Taiwan GABA rice. MR 219 white rice did not show significant difference ( $p > 0.05$ ) for free amino acid compared to Taiwan GABA rice except for glycine, arginine, alanine, proline, lysine and leucine.