

Is ALL Rice Bran Created Equal?

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Consumption of whole grain rice is increasing in the U.S. This increase is likely due to increased consumer awareness of the importance of whole grains in the diet. Whole grain rice is superior nutritionally compared to milled rice because it contains more phytochemicals and essential nutrients, except for carbohydrates. The degree to which the types and levels of these health-beneficial compounds vary across cultivars, growing conditions and post-harvest processing has been studied only to a limited degree. This information is needed in order for a definition of rice bran to be established for use by the food industry and those evaluating its impact on human health. In addition, it is needed by breeders interested in enhancing the profile of the bioactive compounds found in rice bran. Towards that end, we have studied the levels of several fractions with potential health-benefits in rice cultivars from around the world. Our results indicate, for example, that the gamma-oryzanol fraction varies from approximately 2.8 to 6.6 mg/g and that these levels are under greater genetic control than are the levels of tocopherols and tocotrienols. In conclusion, all rice bran is not created equal – a great deal of variation exists in the types and quantities of its phytochemicals and essential nutrients, and further efforts are needed to develop an industry standard definition for rice bran.