Traditional Utilization of Paddy Straw, Husk, and Bran

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Abstract

Straw, husk, bran, and polish are by-products of paddy cultivation and rice milling which comprise about 80% of paddy plant. In traditional rice growing Asian countries the by-products have been put into simple uses according to simple needs of humans since ancient times. Straw has been used since ancient times as feed and fodder, thatching material, for composting, and grain storage and also in numerous works including household articles. It was also used for religious and symbolic purposes. Husk has been used, as temper in pottery, binder or as packing material and for making small fires. Since 1886, husk has been utilized as fuel for running boilers for parboiling facility in rice mills. Bran was usually served as feed while in Japan it found additional use in beauty care and pickle making. With the introduction of high-yielding varieties and decreased traditional uses, large quantity of these by-products got piled up. Their enormous quantity poses problem of disposal and transportation. Straw and husk were subjected to burning in-situ causing environmental problems. A lot of research during the past three decades has resulted into new and innovative uses of straw, husk, and bran. This paper presents the traditional uses of rice by-products in agriculture, and also in cultural, social, and religious life of people of various Asian countries.