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Effect of Starch Properties on the Extent of Breakage of Non-Glutinous Dried Rice Cake

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This study was conducted to determine the reason why dried rice cakes for non-glutinous rice crackers (*Senbei*) often break in the production process. Breakage after drying at 40° C for 12 h was found to be due to milling and storage conditions of the rice flour. Gel permeation chromatography revealed that the molecular weight of starch decreased as the extent of breakage increased. Damage to rice flour starch differed according to the milling methods. When press roller milled rice flour was stored at 5-25°C, the activity of α -amylase increased as the temperature became higher. The total water-soluble carbohydrate content of dried rice cake may be a good criterion to judge the extent of breakage. Reduction of the molecular sizes of starch, due to milling and action of α -amylase, is considered to cause the breakage of dried rice cake.

Keywords: [non-glutinous rice cracker](#), [breakage of dried rice cake](#), [\$\alpha\$ -amylase](#), [degradation of starch](#)

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