



Plenary Lecture



Rice digestibility - an in vitro approach

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Abstract

Different from wheat and maize, rice (*Oryza sativa* L.) is usually consumed as a cooked grain. Therefore, the structural grain attributes like tissue structures influence on the cooked rice properties, e.g. its textural characteristics during chewing. Although it is usually thought that the grain structures are destructed by mastication, the structure in microscale such as cell structures are mostly maintained through mastication and peristaltic motion of stomach. Thus, the grain attributes must be related to its digestibility at small intestine. To examine the effect of such structural grain attributes on a cooked rice digestibility, a simulated gastro-intestinal in vitro digestion technique focused on changes in starch hydrolysis and antioxidant activity during digestion has been employed. The results of some in vitro approaches will be shown. The relationship between structural grain attributes and rice digestibility will be discussed, as well.

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