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## The effects of steaming and roasting treatments on lipase activity and nutritional components of " oat rice" (OR): the peeled naked oat (*Avena nuda*) kernels

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### ABSTRACT

Peeled naked oat kernels, named " oat rice" (OR) by Chinese food scientists and processors, are novel oat products in China. This study examined the effects of steaming and roasting treatments on the enzyme activities, nutritional contents, and flour pasting properties of OR kernels. Results showed that a peeling time of 20 s caused 16.13%  $\beta$ -glucan loss, while a peeling time 25 s caused 34.29%  $\beta$ -glucan loss in the kernels. OR kernels with a 20 s peeling treatment demonstrated significantly higher starch levels and kernel whiteness compared with normal oat kernels ( $P < 0.01$ ). It was also found that normal pressure steaming, autoclaved steaming and infrared roasting treatments could exterminate lipase activities in the OR kernels, and provide the OR kernels with significantly lower final viscosities and setback values than normal kernels ( $P < 0.01$ ).

### KEYWORDS

Naked Oat (*Avena Nuda*); Oat Rice; Peeling Treatment; Lipase Activity; Infrared Roasting

### Cite this paper

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