

**Title** Optimization of process parameters for milling of enzymatically pretreated Basmati rice  
**Author** Gopika Arora, V.K. Sehgal and M. Arora  
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#### **Abstract**

This study was carried out to investigate the effect of enzyme concentration (0.0015–0.0055 g/ml), extraction time (1–3 min) and temperature (27–47 °C) on milling and cooking quality of Basmati rice by using response surface methodology. Commercially available cellulase enzyme was used for the pretreatment of brown rice. The head brown rice was treated with cellulase enzyme and then polished in an abrasive type Satake polisher to 5% degree of polish. Depending on the different process parameters the broken percentage varied from 3.23% to 4.58% as compared to 4.72% in an untreated Basmati rice sample. Optimum process parameters for minimum percentage of broken and good cooking quality were: 0.0015 g/ml of enzyme concentration, 40 °C of pretreatment temperature and 2 min of pretreatment time. The process parameters also showed significant effect on broken percentage, time of polishing and optimal cooking time.