Quality of regular and parboiled rice in long-term storage

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The objective of this research was to investigate the effects of long-term storage on the sensory and chemical quality of uncooked rice, including the impact of hexanal levels, vitamin content, and the acceptance by consumers. The rice was stored in cans under normal humidity and temperature conditions, with occasional monitoring of gas composition and sensory assessment. Over a period of 30 years, the rice was stored in cans treated to reduce oxygen levels, and the sensory and chemical changes were monitored.

### RESULTS AND DISCUSSIONS

Headspace Oxygen, Can Seem, and Water Activity
The results for the headspace oxygen and sensory quality for each sample are shown in Table 2. The results of the can seem analysis showed that the can seems were affected by varying levels of oxygen and moisture. The oxygen concentration in the can seems was around 3.5%, which is below the maximum acceptable level of 5% for can seem oxygen.

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### REFERENCES


### CONCLUSIONS

The quality of rice in long-term storage did not decreas sigificantly over time. However, the sensory quality and overall acceptability significantly decreased over time in regular rice. The shelf life of rice, meaning that parboiled rice decreased over time in overall quality more than regular rice. There was no significant trend over time in acceptance for use in everyday or emergency situations. The results of this study highlight the importance of proper storage conditions to maintain the quality and safety of rice for long-term storage.