

# “Nutritional composition of kimchi made from *Oryza sativa* (rice) and *Solanum tuberosum* L. (papa peruanita)”

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## INTRODUCTION & AIM

Kimchi (김치) is a meal belonging to the group of fermented foods, which originates from the traditional Korean cuisine. Due to its easy preparation and storage, its reach has expanded to different cultures worldwide. Its health benefits are attributed to its antioxidant and anti-inflammatory properties, as well as its probiotics and prebiotics' content.

The aim of the present study was to evaluate the nutritional composition of kimchi made with rice starch (K1) and with *papa peruanita*, a type of Peruvian potato(K2).



## RESULTS & DISCUSSION

There were no significant differences ( $p$  values  $> 0.05$ ) regarding the nutritional composition and physicochemical characteristics between 50 gr of both samples: K1 and K2.

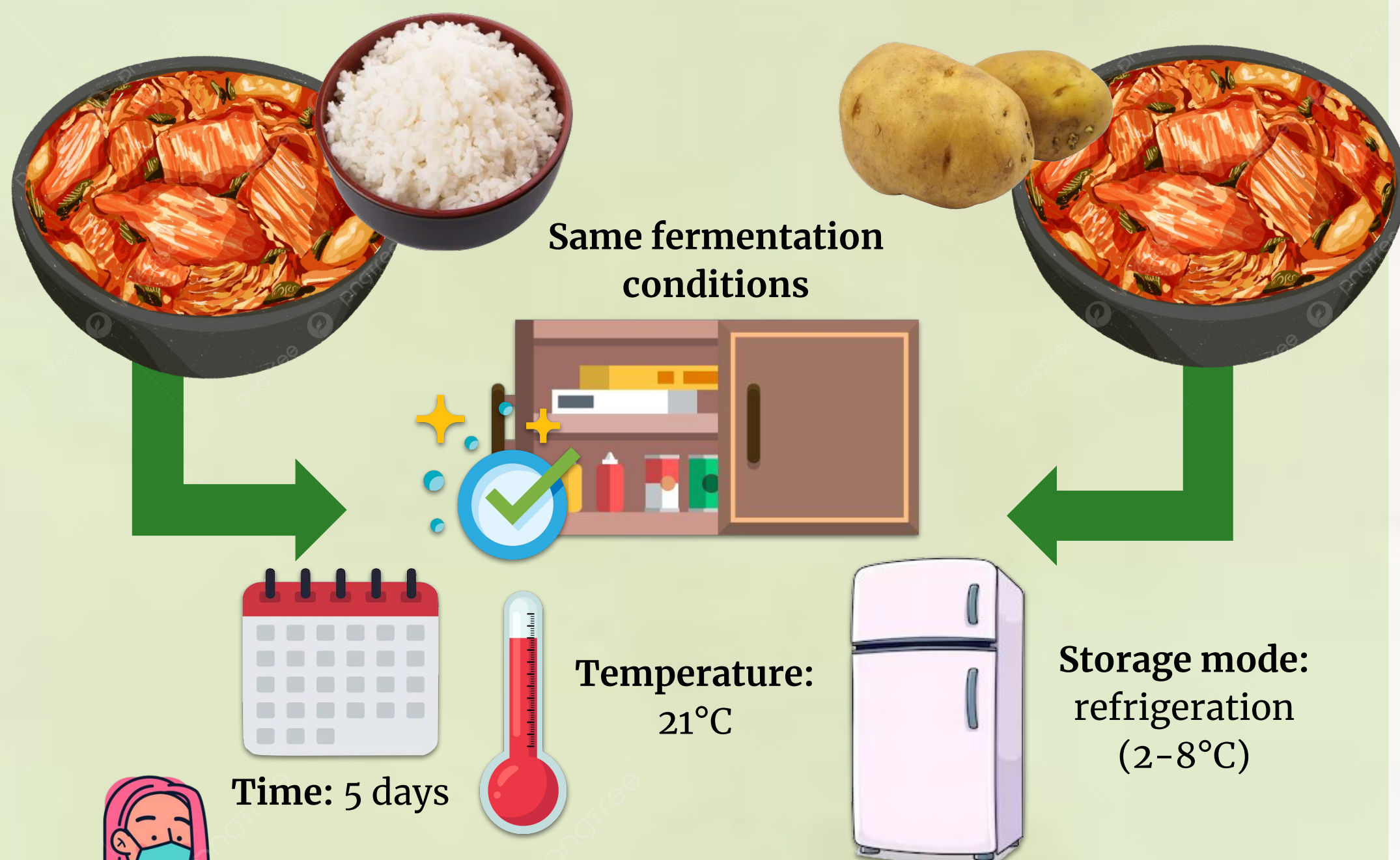


Nutritional Composition	K1 Formulation	K2 Formulation
Energy (kcal/50 g)	25.9	26.2
Proteins (%)	5.4	5.3
Fats (%)	12.5	13.1
Carbohydrates (%)	34	33.6
Raw fiber (g/50g)	0.34	0.39
Physicochemical Characteristics	K1 Formulation	K2 Formulation
Total acidity (g acetic acid/50 g)	0.28	0.28
pH	3.73	3.59

## METHOD



Each ingredient was used in a quantity of 15.76 g, of rice (K1) and *papa peruanita* (K2), respectively.



A nutritional study was conducted, which included the physicochemical characteristics of pH and total acidity.

## CONCLUSION

This study contributes to the adaptation of the recipe using another source of starch without altering the nutritional composition. It also offers a new alternative for diverse kimchi recipes, giving consumers a wider range of options.

## FUTURE WORK / REFERENCES

For future work, a sensorial analysis is to be conducted, with the participation of trained panelists. The findings favor the incorporation of new ingredients, as similar results can be inferred.

1. Cha, Jeongmin, et al. “Does Kimchi Deserve the Status of a Probiotic Food?” *Critical Reviews in Food Science and Nutrition*. Disponible en: <https://doi.org/10.1080/10408398.2023.2170319>.
2. Min SH, Lee SH. Determinants of Kimchi Consumption Behavior: a Logit Model Analysis. *Journal of Agricultural, Life and Environmental Sciences*. Disponible en: <https://www.jales.org/articles/xml/gYLY/>.