

COMPOSITE FLOUR BLENDS: EFFECT OF PARTICLE SIZE OF PEELED AND UNPEELED ORANGE FLESHED SWEET POTATO FLOURS ON QUALITY CHARACTERISTICS OF COOKIES

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INTRODUCTION

- Wheat flour for bakery foods production is expensive in Sub-Saharan Africa.
- Replacement of wheat flour with quality and less expensive non-wheat flour is necessary.
- This study investigated the effect of particle size of peeled and unpeeled orange fleshed sweet potato (OFSP) composite flours on quality characteristics of cookies.

MATERIALS & METHODS

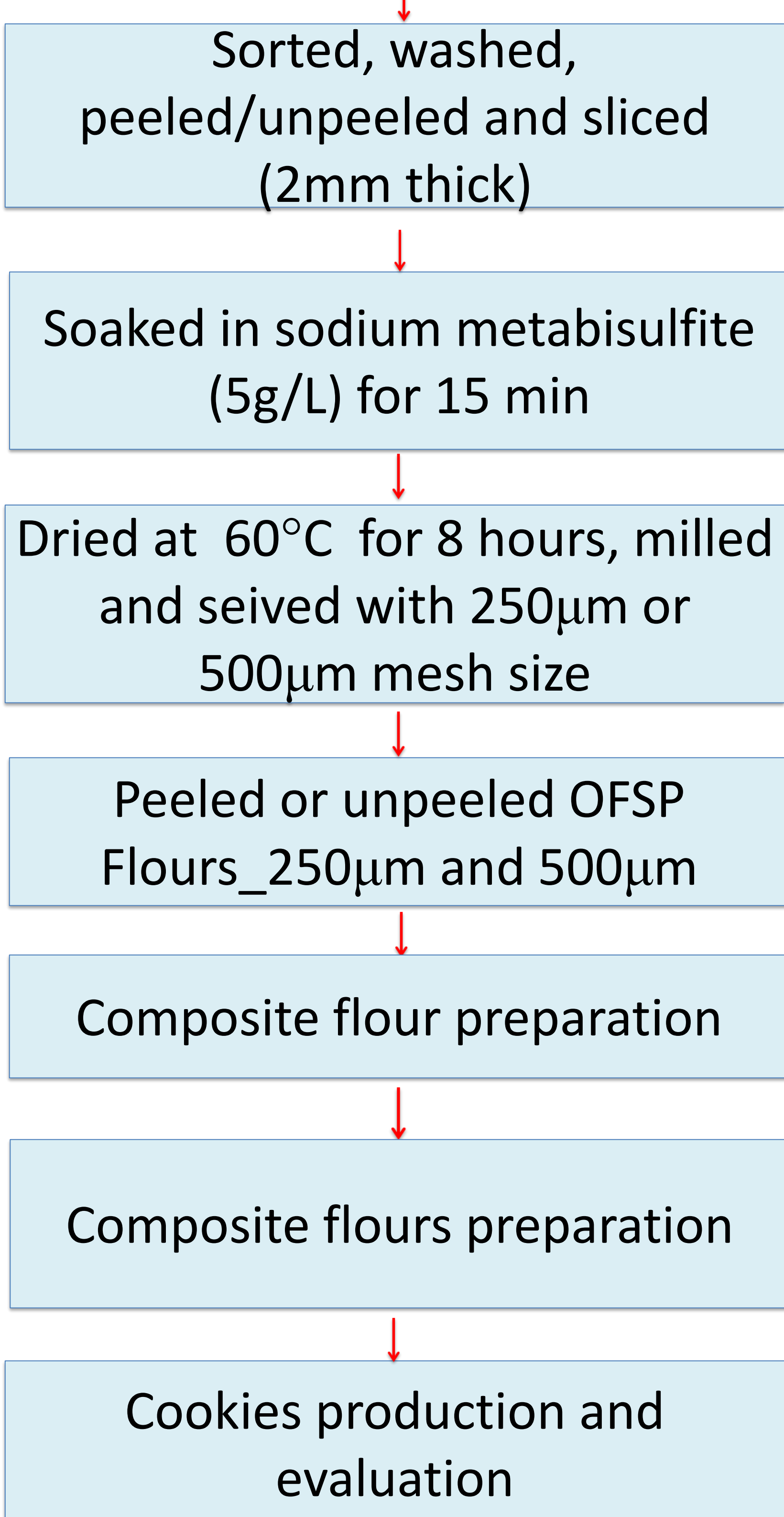


Fig.1. OFSP flour and cookies processing

RESULTS AND DISCUSSION

- Baking loss and colour of cookies were not significantly ($p>0.05$) affected by flour particle size.
- Flour particle size significantly ($p<0.05$) influenced cookies overall acceptability.
- 250µm particle size flours with inclusion levels of 10-50% for peeled and 10-20% for unpeeled OFSP composite flours cookies had higher consumer acceptability.
- Beta-carotene and vitamin A contents were not affected by flour particle size.
- OFSP composite flour cookies had significantly higher nutritional value than the wheat flour cookies.

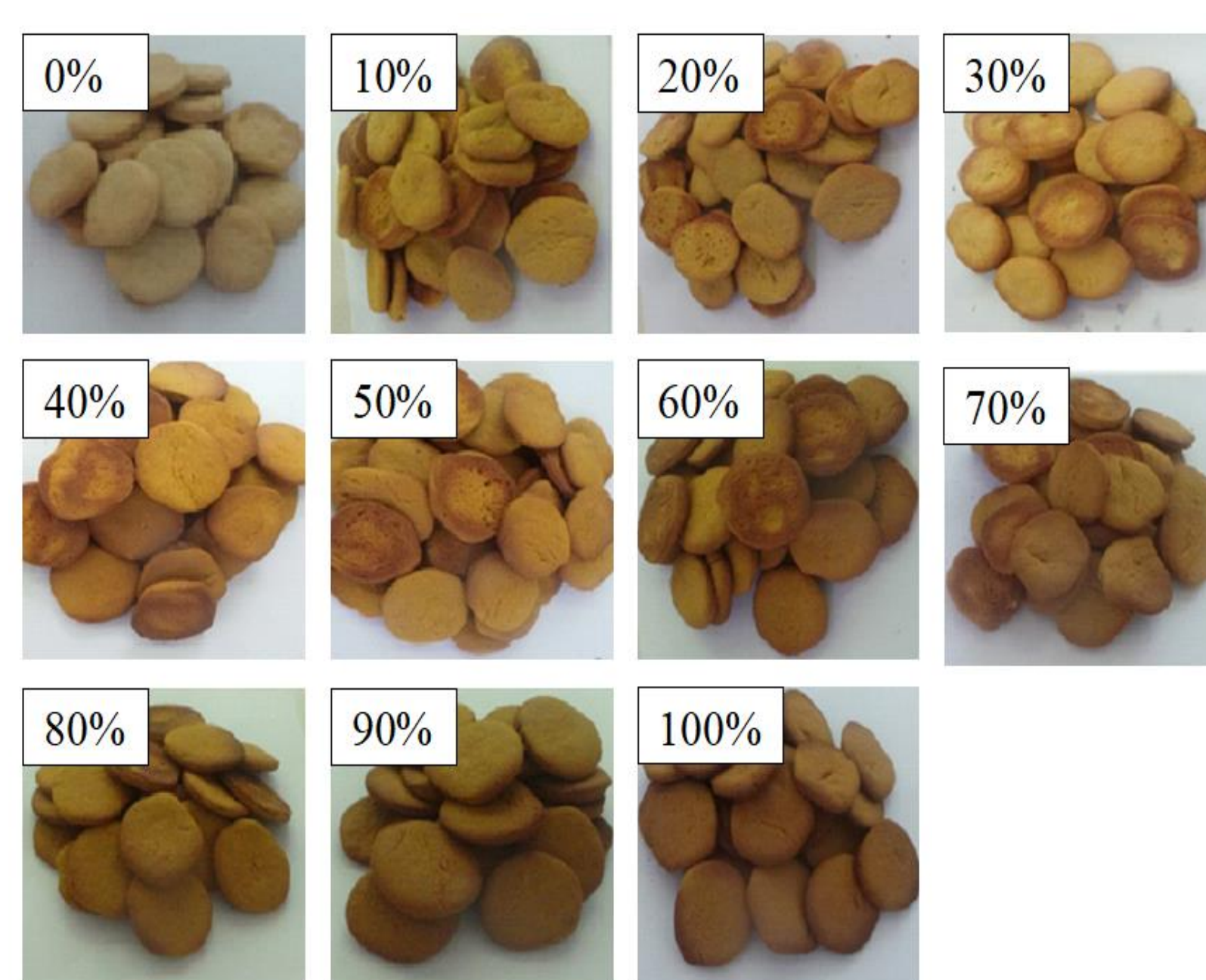


Fig.2. OFSP composite flour cookies

ACKNOWLEDGEMENT

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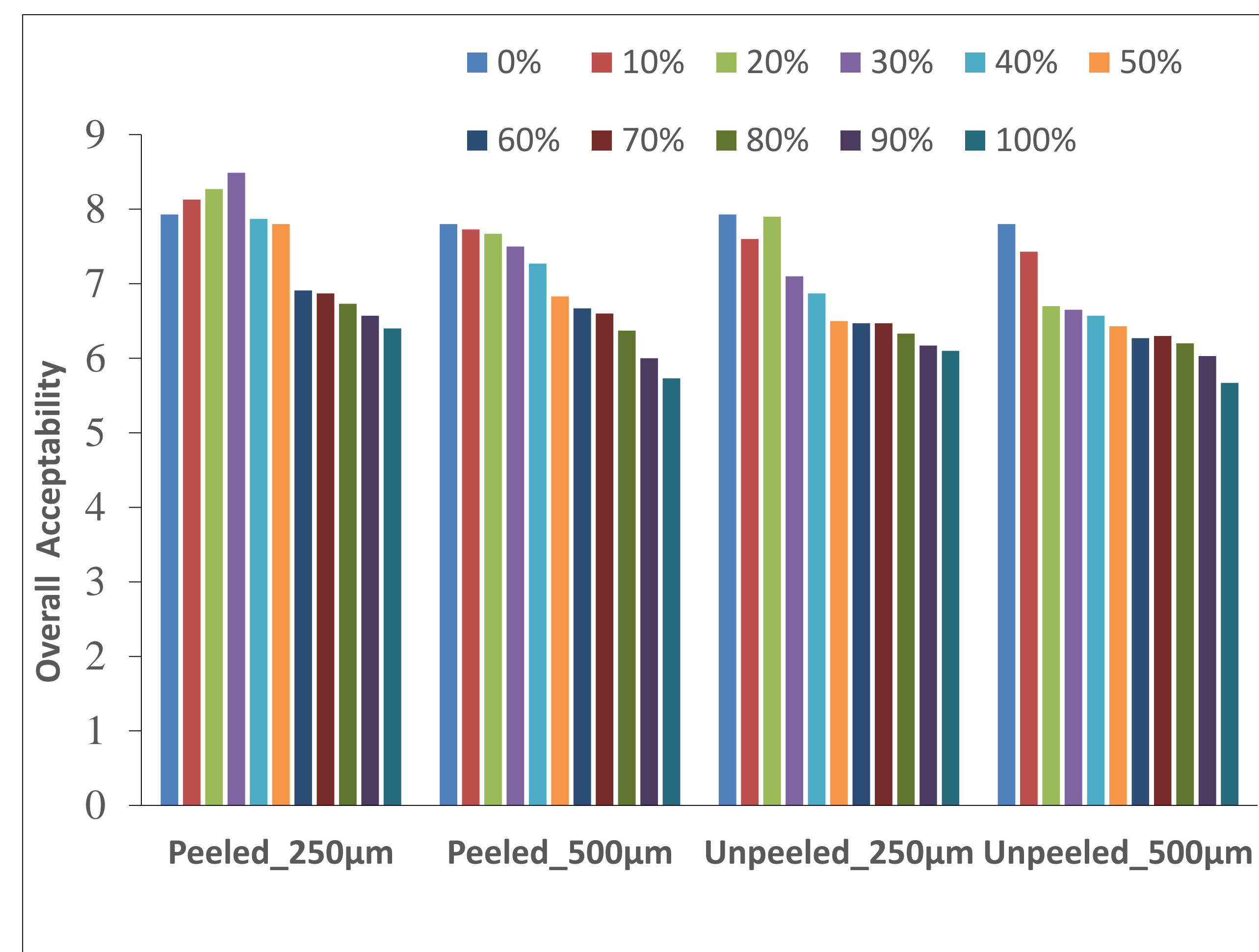


Fig.3 Overall consumer acceptability of cookies

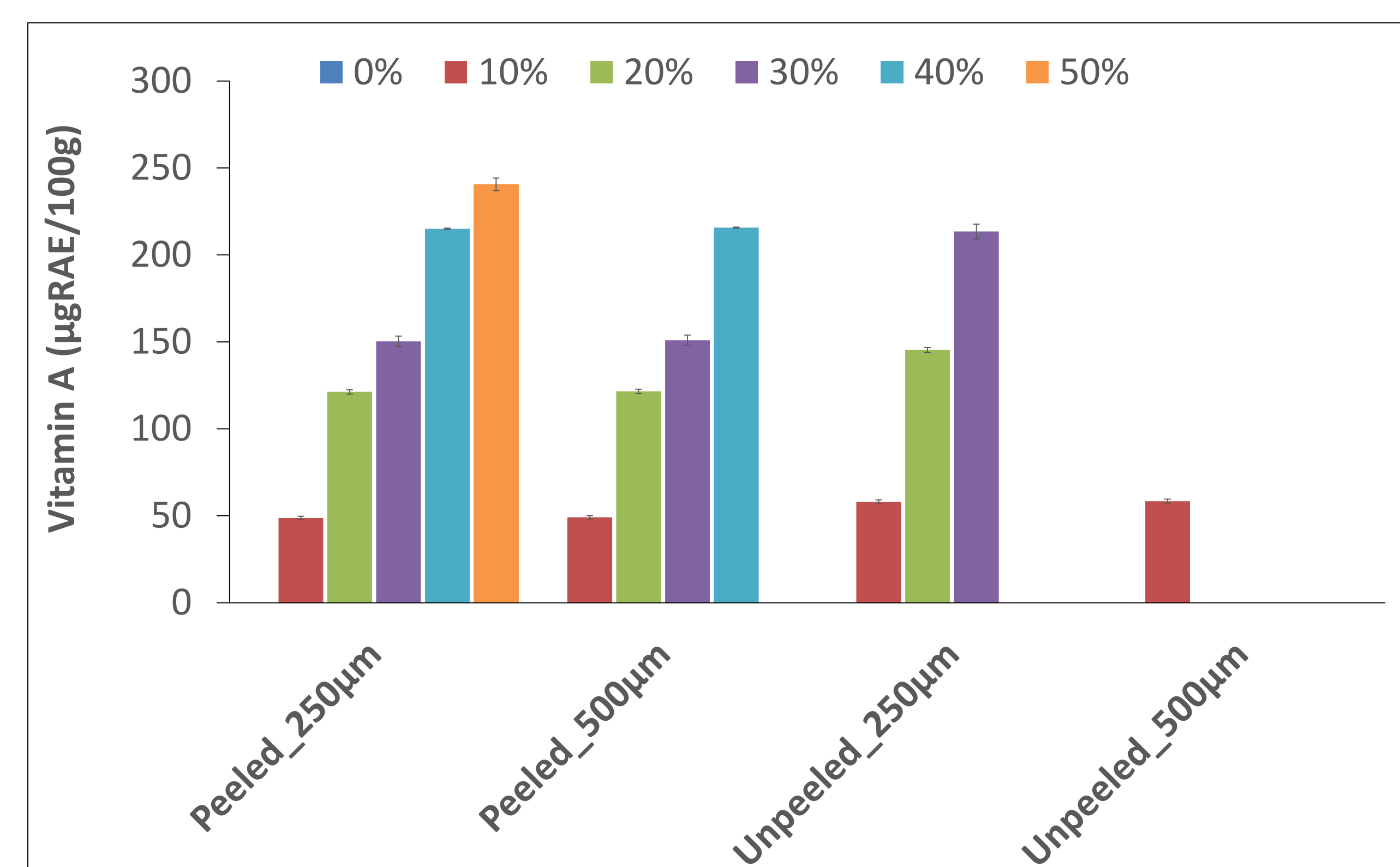


Fig.4 Vitamin A content of high overall accepted cookies

CONCLUSION

- OFSP flour reduced baking loss and improved colour of cookies.
- 250µm particle size flour cookies had better overall acceptability.
- Vitamin A content of the cookies increased significantly with increasing level of OFSP flour.
- OFSP flour can be used to partially substitute wheat flour for cookies production.
- Generally, cookies colour darken when OFSP flour inclusion level was above 50 %.
- Peeled OFSP flour with 250µm particle size and 30-50% can be used to replace wheat flour for cookies production