

# Sustainable Network for agrofood loss and waste prevention, management, quantification and valorisation

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## Valorization of cold stored Tunisian pomegranate as ready-to-eat arils

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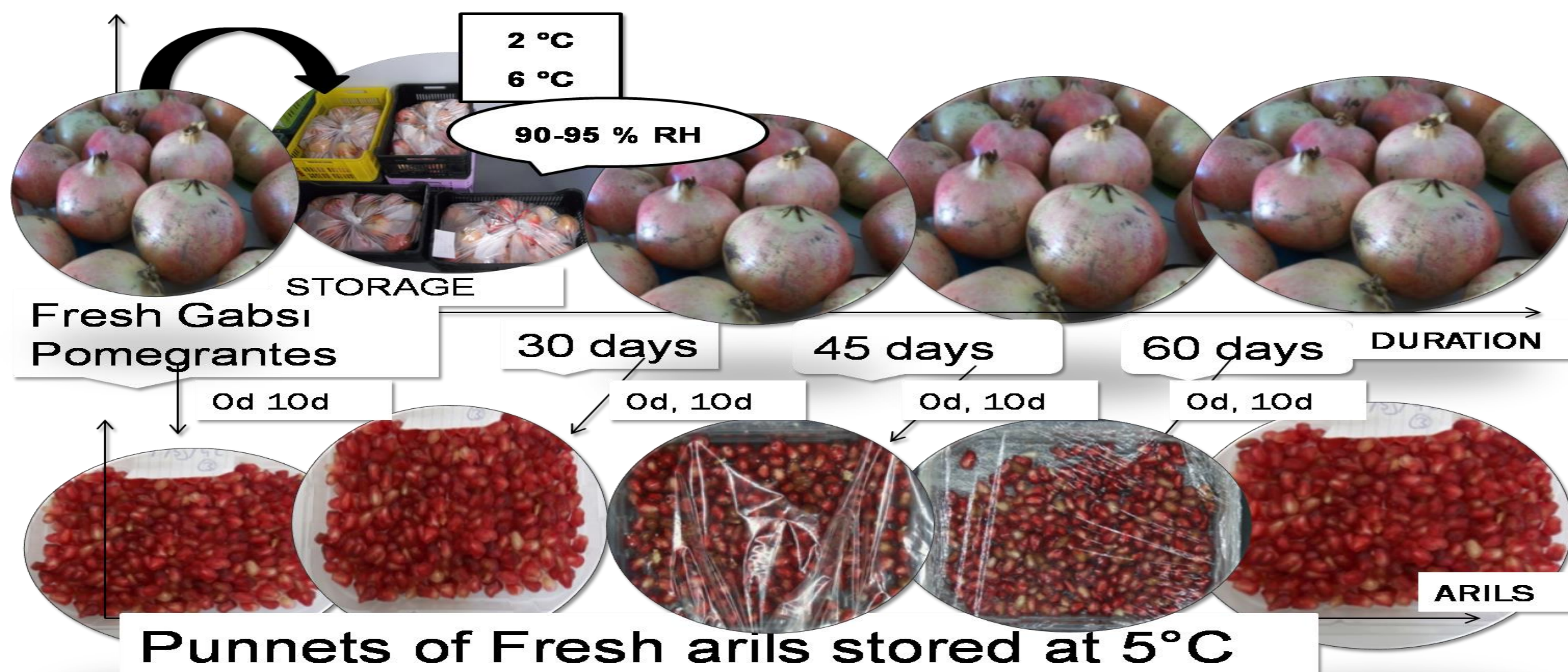
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### INTRODUCTION

Pomegranates are only available as whole fruit during the production season. Cold storage could extend the availability of pomegranates out of season. Ready-to-eat arils offer another form of pomegranate fruit to the market, providing innovative methods to extend the shelf-life of the fruit and reduce post-harvest fruit waste. Fruit quality is generally affected by several postharvest treatments and conditions. Arils are usually extracted from freshly harvested pomegranates or after a short storage period. Nevertheless, pomegranate fruit may be stored for several weeks before being marketed as ready-to-eat arils (REA). In this study, the effect of different postharvest storage periods (30, 45, and 60 days) and temperatures (2 and 6°C) on quality of arils extracted immediately after each storage period and then after 10 days shelf-life were investigated.

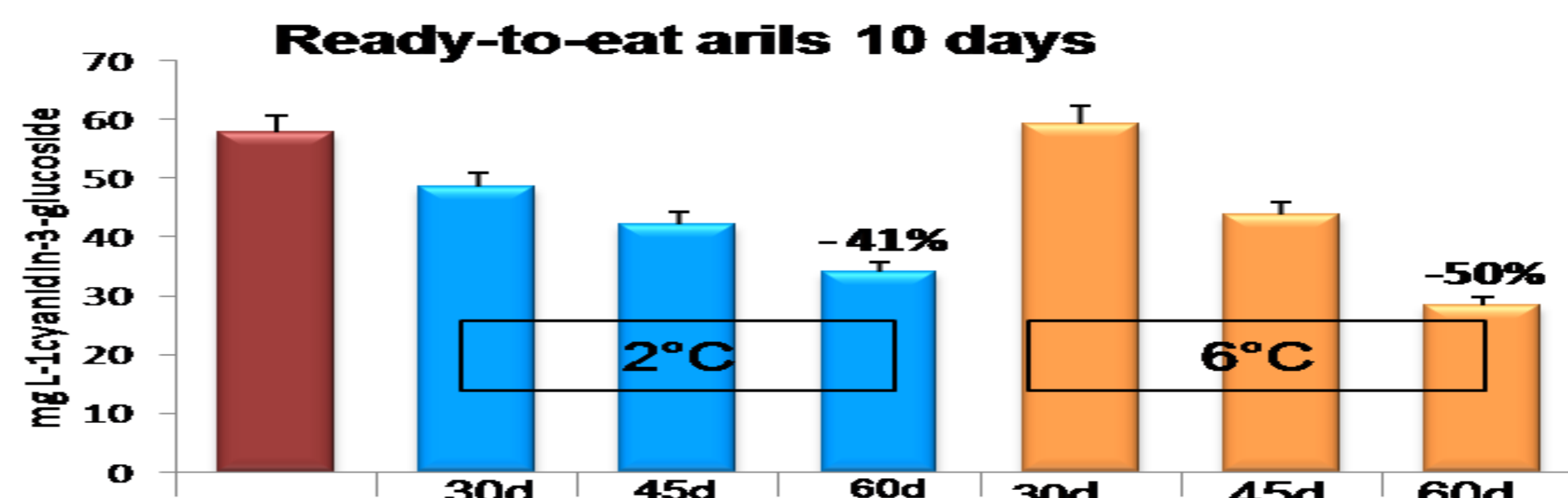
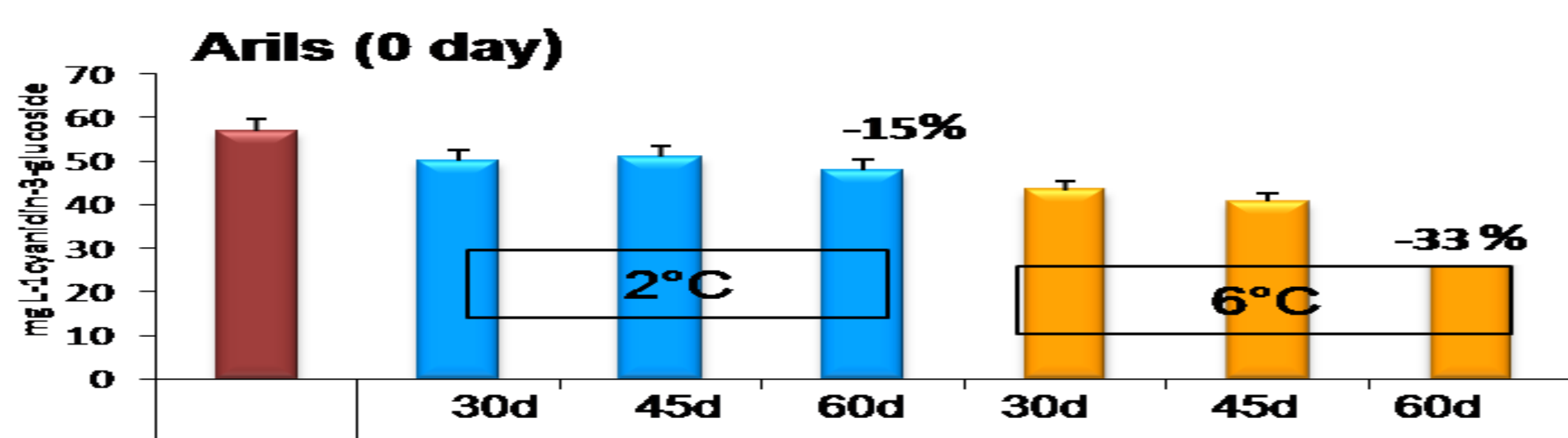
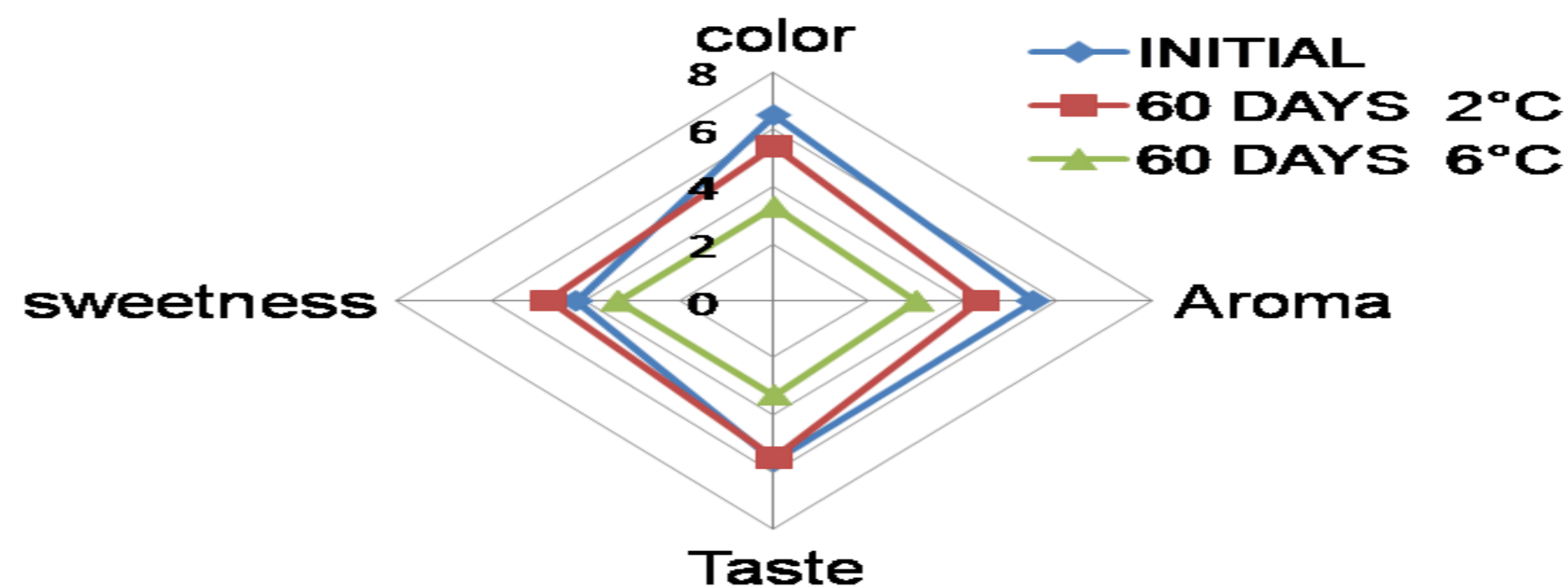
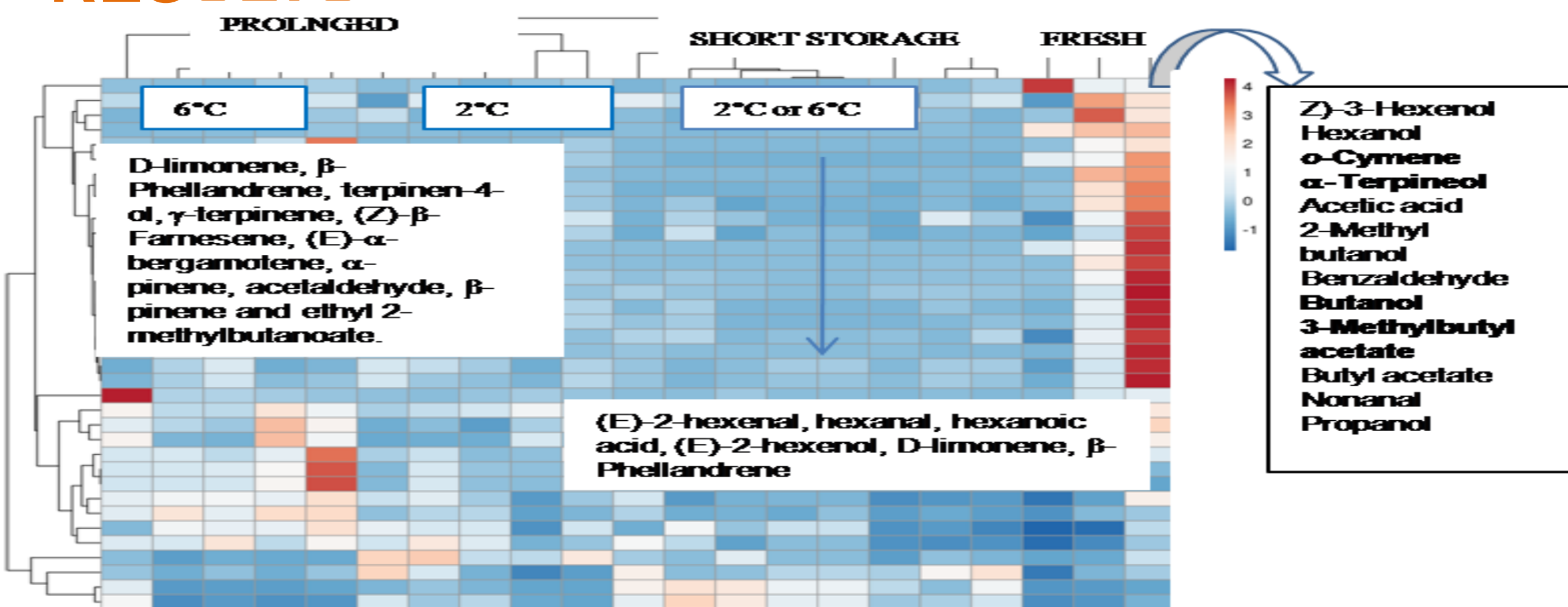
### MATERIAL AND METHODS



- Sensory analysis
- Color attributes (L\*a\*b\*) (Colorimetric)
- Total anthocyanins (spectrophotometry)
- VOC (Gas chromatography)



### RESULTS



Changes of Volatile organic compounds, sensory traits and total anthocyanins of arils as affected by temperature and storage of fruit

### CONCLUSION

Storage temperature (2°C) was more suitable to store "Gabsi" pomegranate fruit until 2 months allowing to obtain arils as ready-to-eat product with better quality, while reducing fruit waste during the production season.

### ACKNOWLEDGEMENT

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