

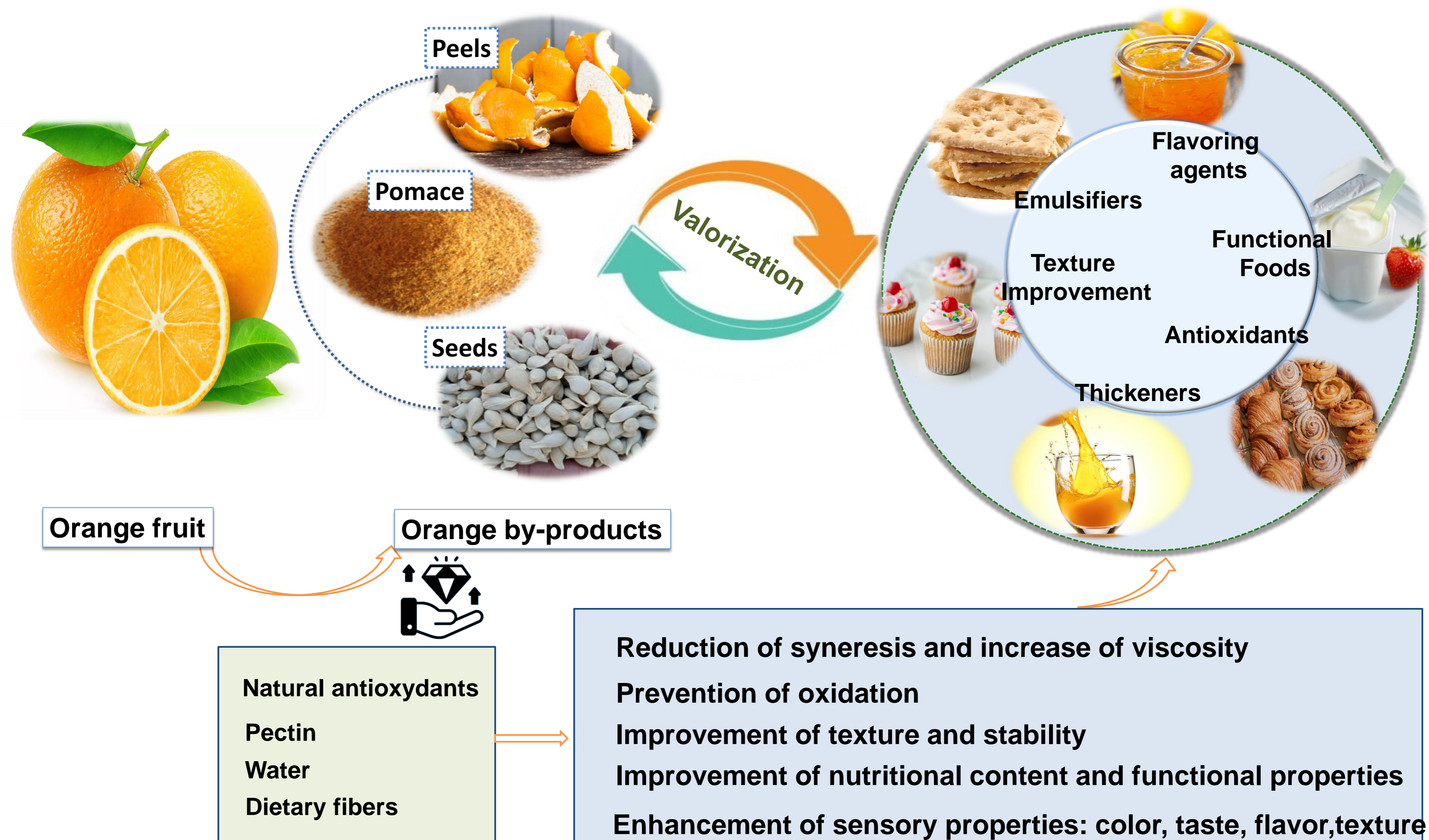
The valorization of orange by-products in food systems as additives and functional ingredients: A review

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INTRODUCTION

Fruit by-products contain several industrially important components, such as polyphenols, dietary fiber, pigments, and nutraceuticals, which are valuable for various industrial applications, particularly in additive production (1). Oranges are among the fruits that generate large quantities of waste. These by-products can be applied in the food industry as additives, serving as antioxidants, emulsifiers, flavoring agents, and thickeners (2, 3).



CONCLUSION

Fruit waste represents not only a loss of food commodities but also an indirect waste of vital resources. Transforming them into useful materials is essential for achieving a sustainable food supply and preserving natural resources.

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