

ADDRESSING INEFFICIENT POST-HARVEST PRACTICES TO MITIGATE FOOD WASTE IN MALAYSIAN FOOD SERVICES



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Introduction

- Malaysia's multi-ethnic society, predominantly comprising Malay, Chinese, and Indian communities (Izzah et al., 2012).
- Onion and lemongrass are staple flavour base, while broccoli and greens leafy vegetables are central to traditional cuisine across all three major ethnicities (Raji et al., 2017)
- Many food service operators rely on traditional methods that often do not meet food safety best practices (Izyan et al., 2019)
- This study examines fresh-cut vegetable handling practices among small food business to identify gaps and recommend improvements to reduce losses.

Materials and methods

- Study on post-harvest practices in Pagoh, Johor (June–August 2024).
- Purposive sampling and face-to-face questionnaire used for data collection.
- Stratification and proportional representation: 50 respondents- cooks (54%), kitchen staff (54%), restaurant managers (32%).



Figure 1: The hawkers who sell street food in Malaysia

Results and Discussion

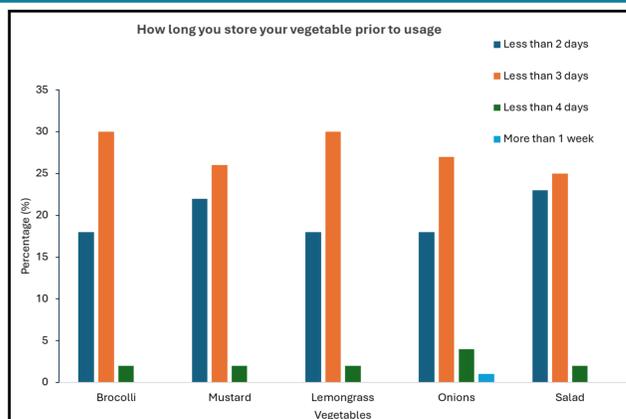


Figure 2: Duration of storage for different vegetables

Most vegetables were stored for less than 3 days and only onion were kept until more than a week

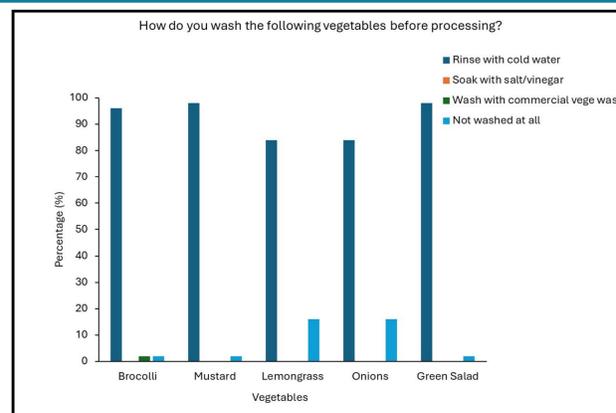


Figure 3: Technique of washing for different vegetables

The unwashed lemongrass and onions shows a need food handling knowledge for better food safety.

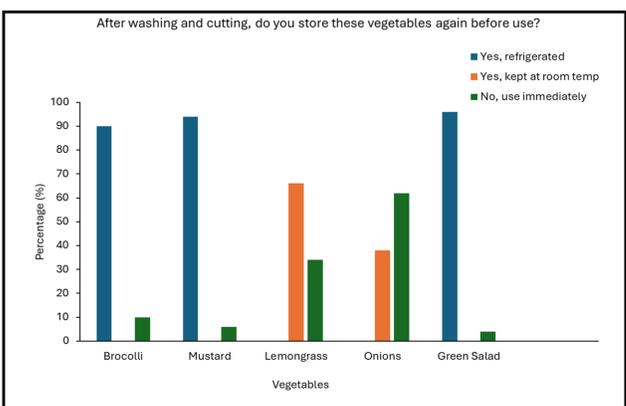


Figure 4: Technique of keeping for different vegetables

Most vegetables were refrigerated after washing and cutting, while lemongrass and onions were often kept at room temperature or used immediately.

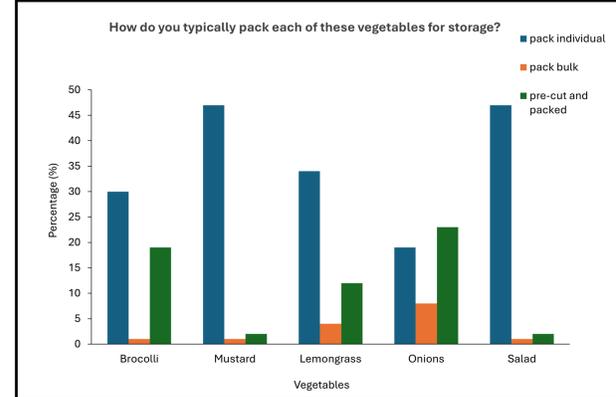


Figure 5: Technique of packing for different vegetables

Most vegetables were packed individually, while onions and lemongrass were often stored in bulk or pre-cut, which may affect quality and shelf life.

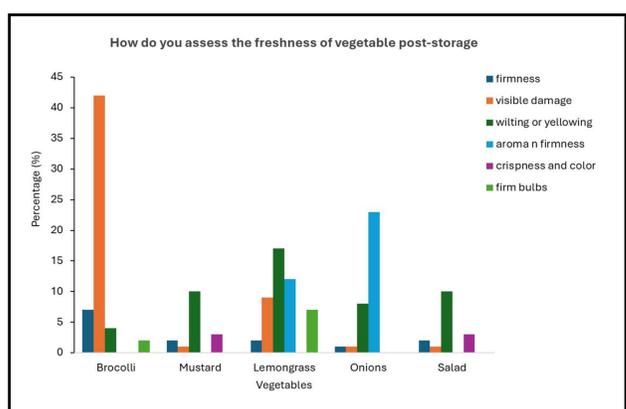


Figure 6: Technique of quality of assesment for different vegetables

Freshness checks differ by vegetable type: broccoli by visible damage, leafy greens by wilting, and onions by aroma and firmness.

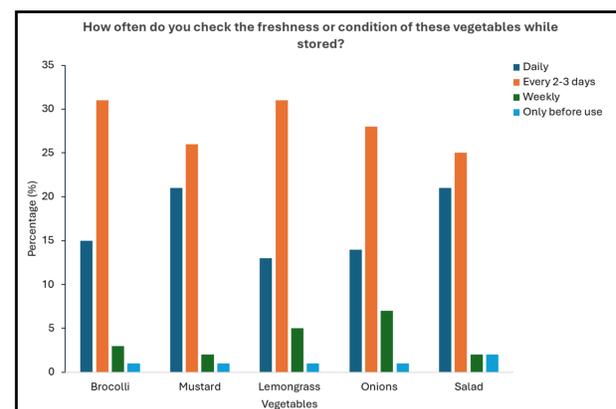


Figure 7: Time for freshness monitoration for different vegetables

About 3–5% of handlers checked vegetable freshness only before use, indicating monitoring gaps that could raise the risk of using spoiled produce.

Conclusion

Vegetable handling practices showed gaps in washing, storage, and freshness monitoring, particularly for lemongrass and onions, highlighting the need for improved food handling knowledge and consistent monitoring to enhance quality, shelf life, and food safety.