

Effect of Different Edible Coating Solutions on the Quality and Shelf-Life of Strawberry (*Fragaria Ananasa*)

Presented by:

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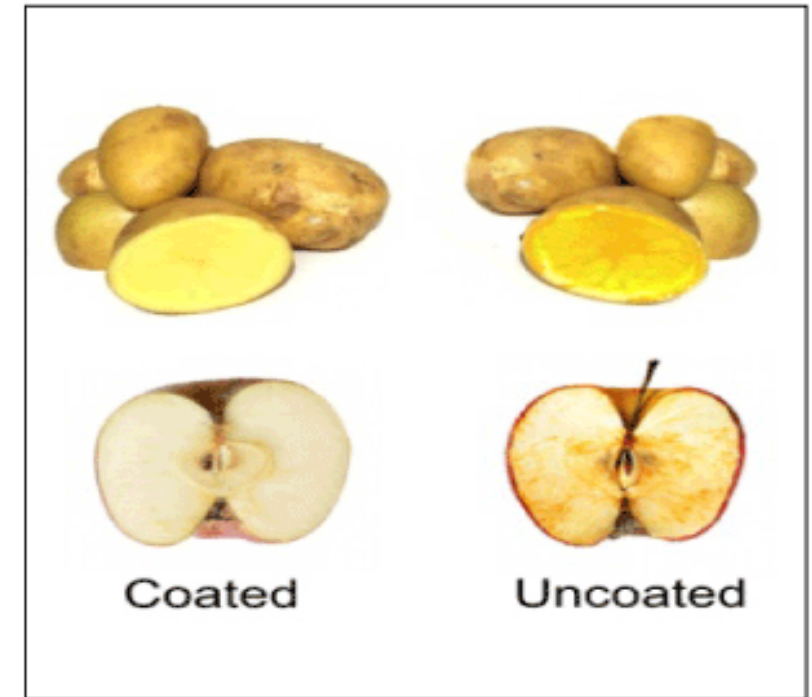
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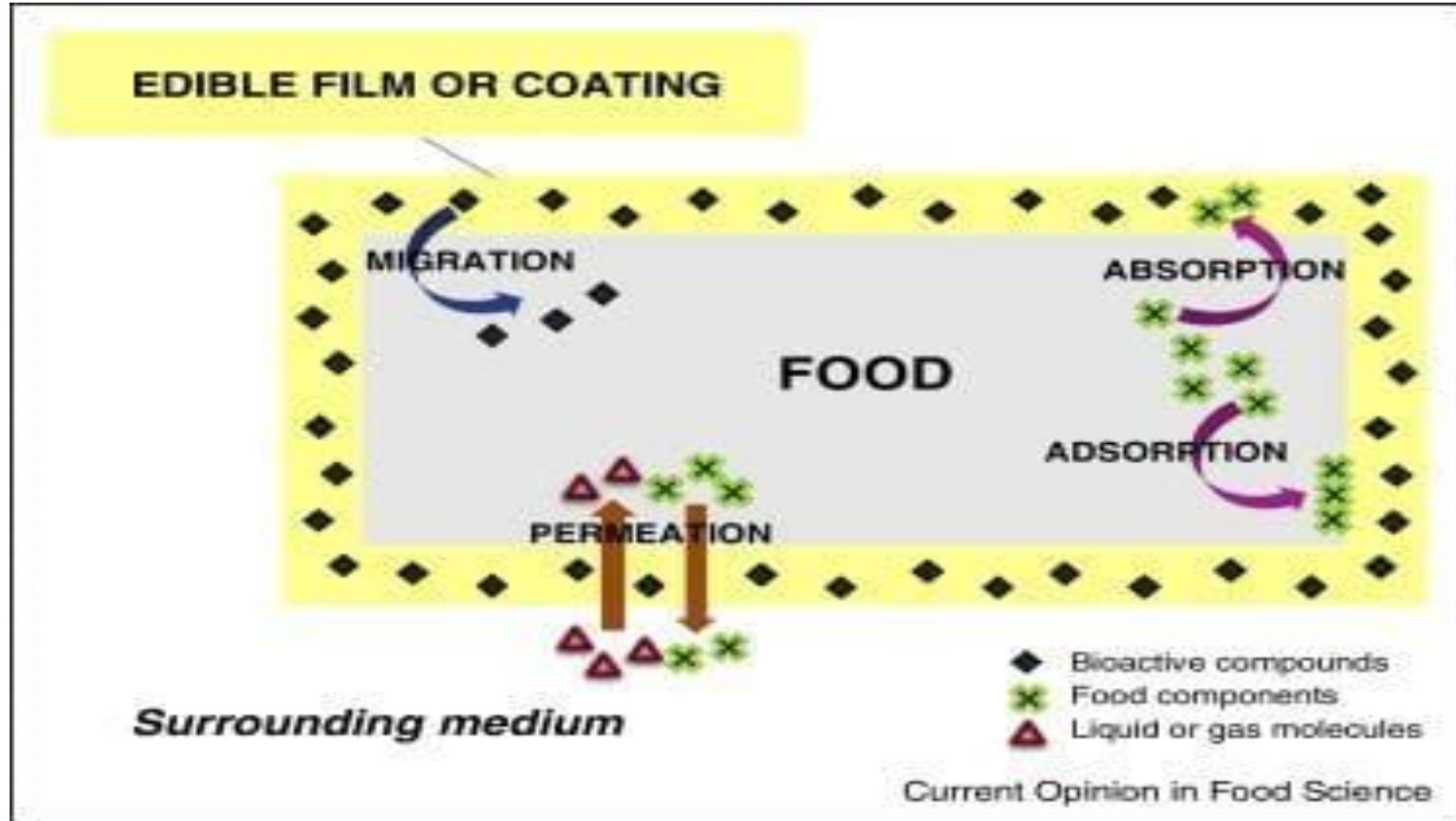
Advantages of Edible Film and Coating

- ✓ Environment friendly, as fully consumed or biodegradable, recyclable
- ✓ Enhancing food organoleptic properties
- ✓ Increasing nutritional values by supplementation
- ✓ Allowing fruit individual packaging
- ✓ Possible interface between the layers of heterogeneous foods to prevent deterioration
- ✓ Possible carrier of antimicrobial or antioxidant agents
- ✓ Possible micro encapsulation of flavoring agents
- ✓ Utilizing different by-products (e.g milk whey)

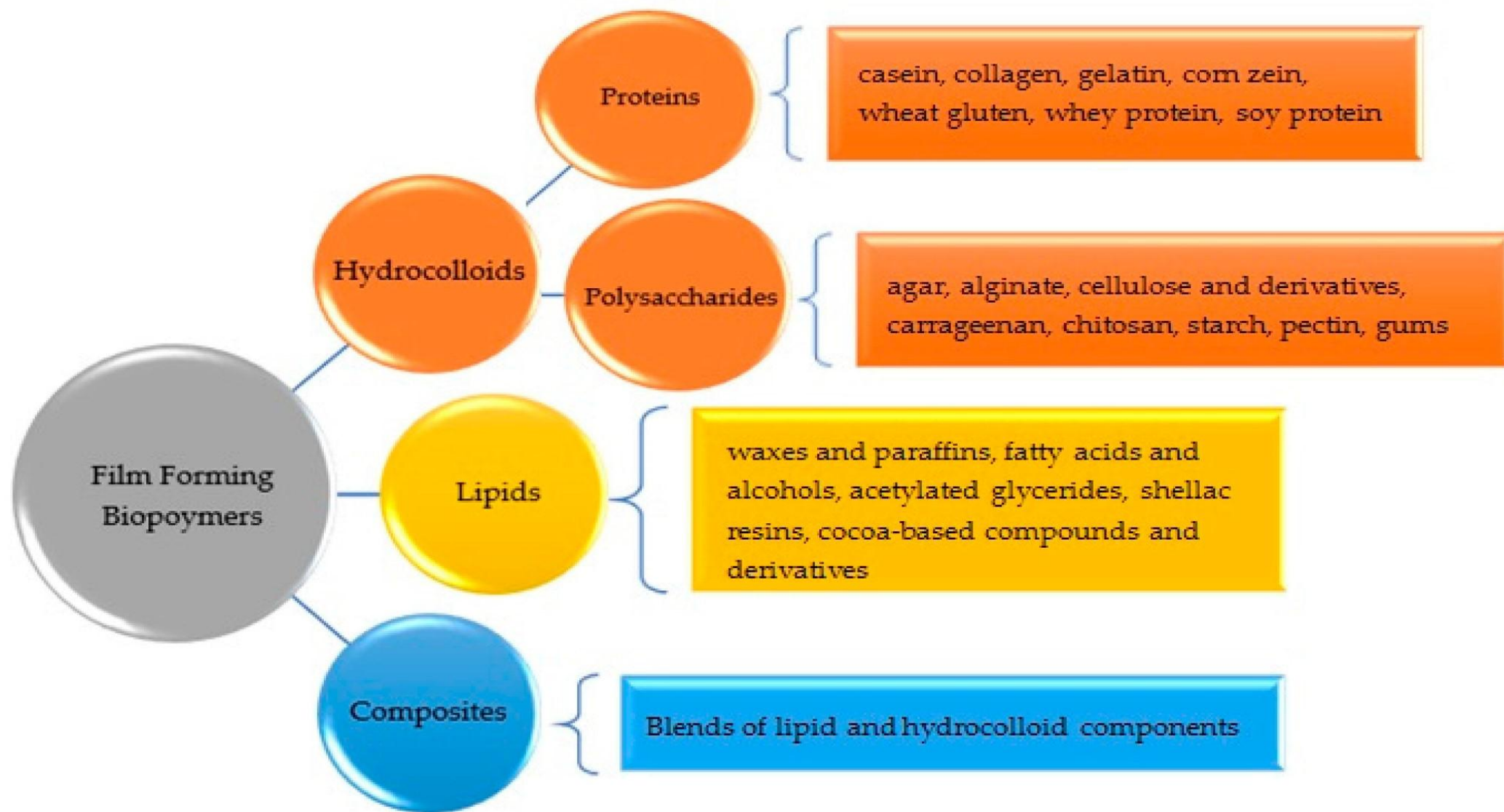


-Dhanapal *et al.* 2012. *Food Sci. Qual. Manag.*
-Sánchez-Ortega *et al.*, 2014. *The Sci. World J.*

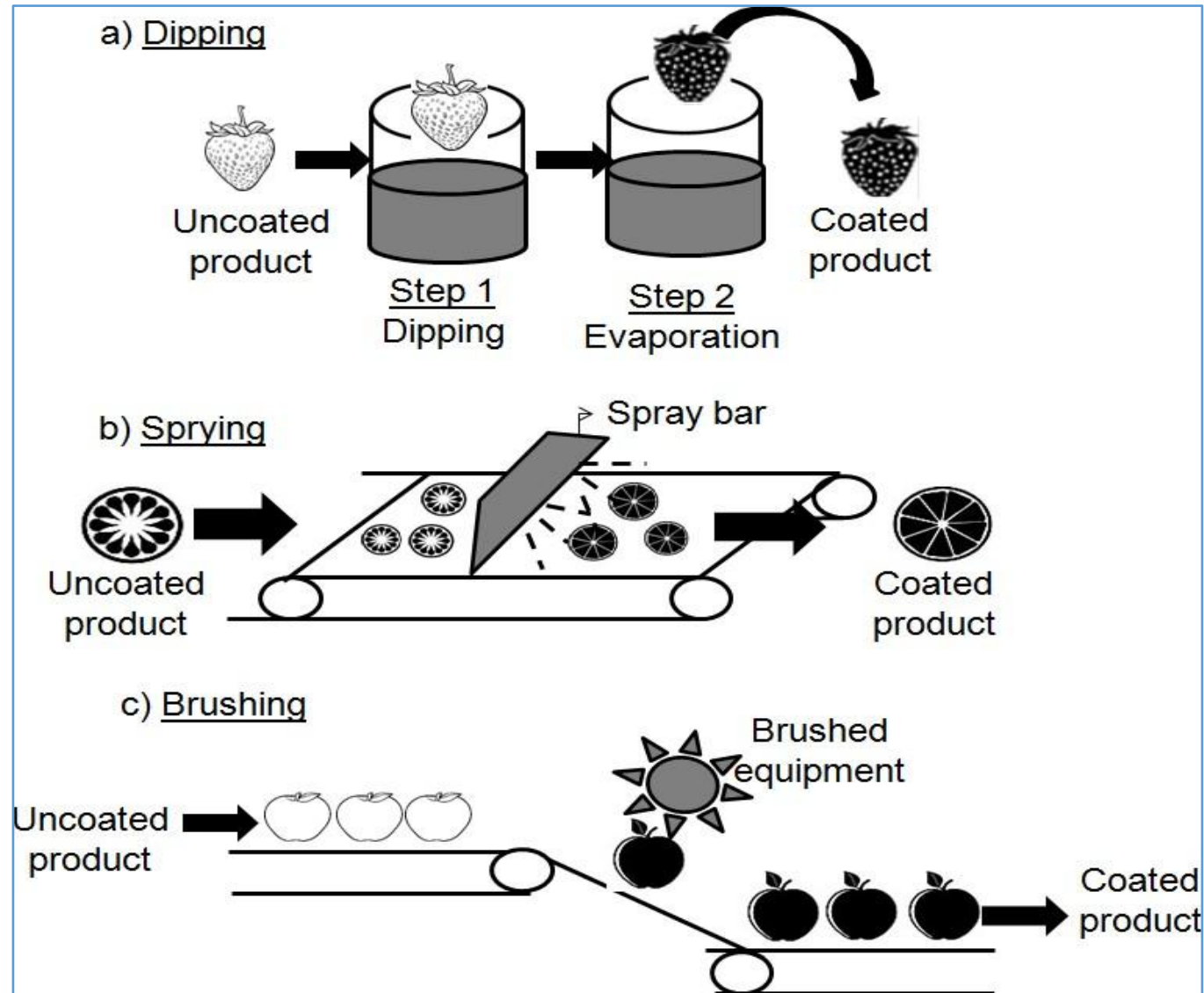
Introduction



Coating Materials



Food Coating Methods



Objectives

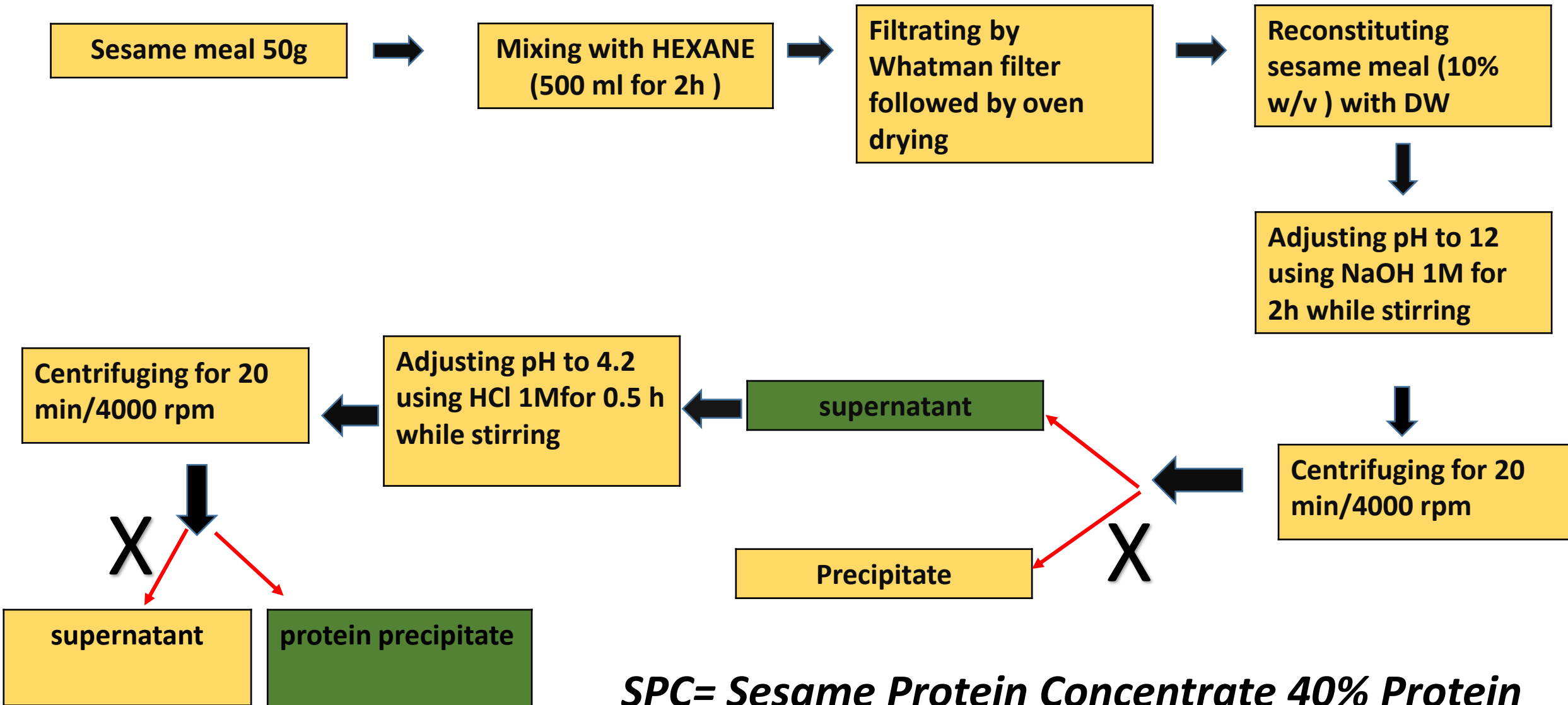


Improving quality and extending shelf-life of strawberry

Extraction protein from industrial by-product

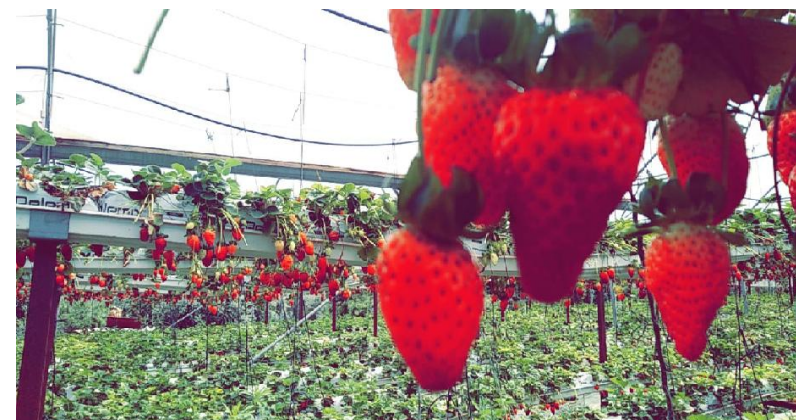


Sesame Protein Extraction

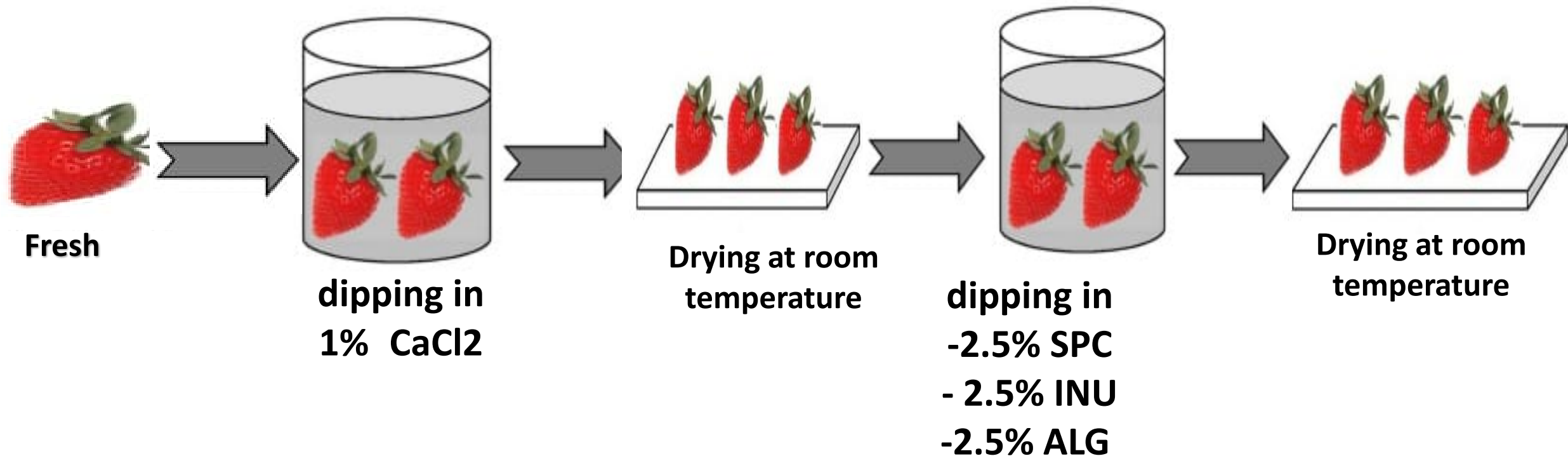


SPC= Sesame Protein Concentrate 40% Protein

Selection of Strawberry form Farm



Materials and Methods



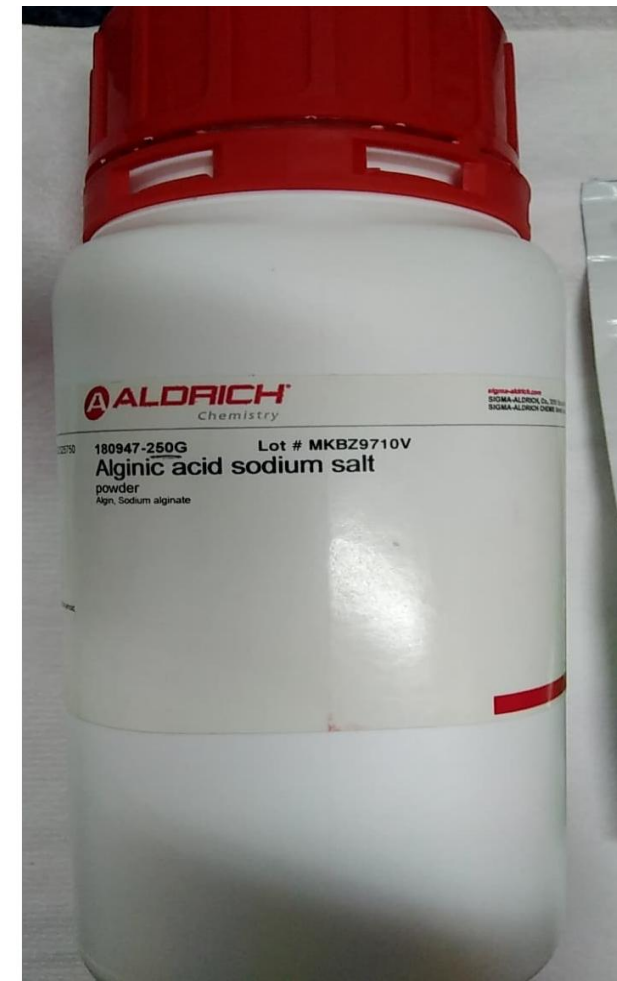
Control

D/CaCl₂

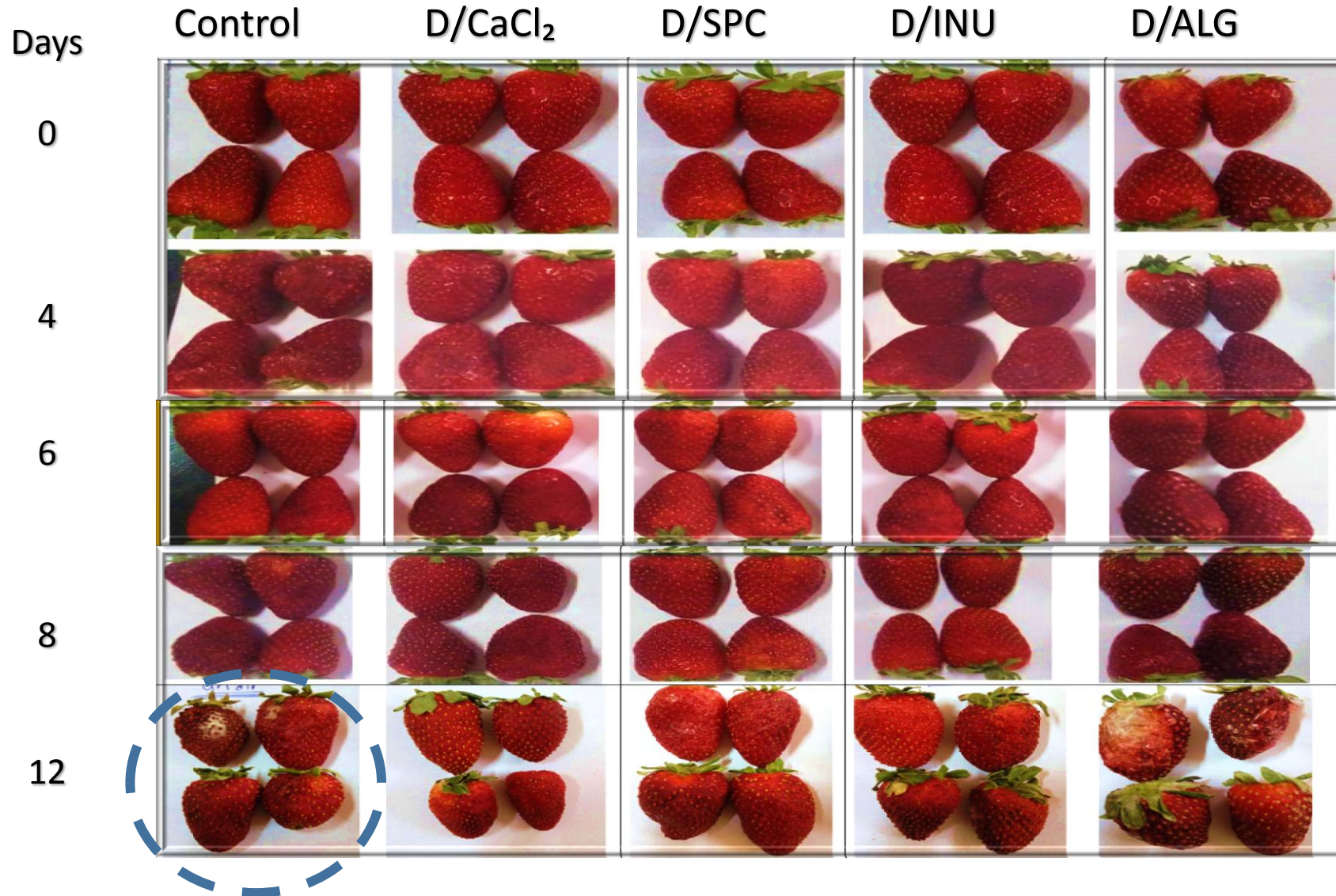
D/SPC, D/INU, D/ALG

Treatment

Benefit of Inulin and Alginate



Effect of Different Coating Solutions and Storage Time of Strawberry Properties Stored at 4 °C



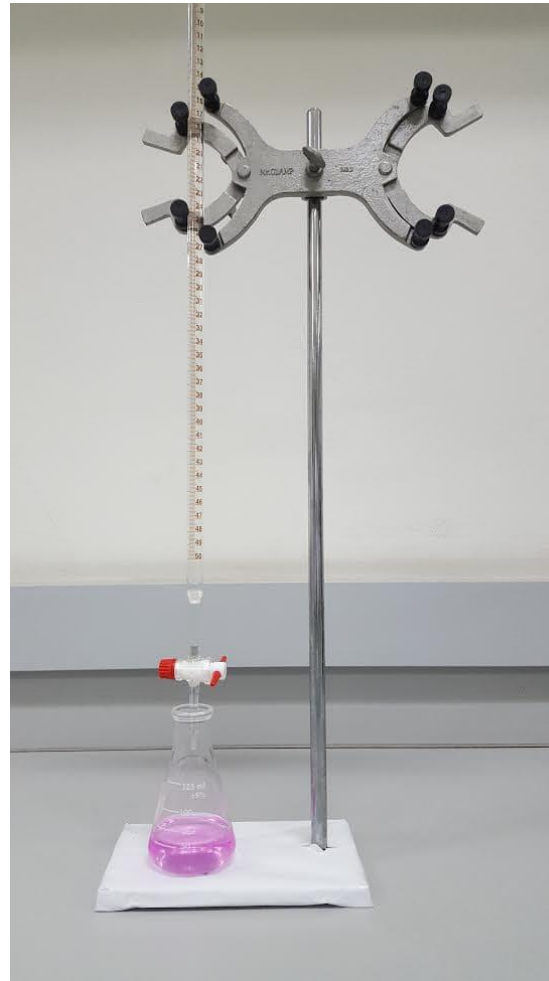
Measurement Methods



pH meter



**Digital refractometer
°Brix**



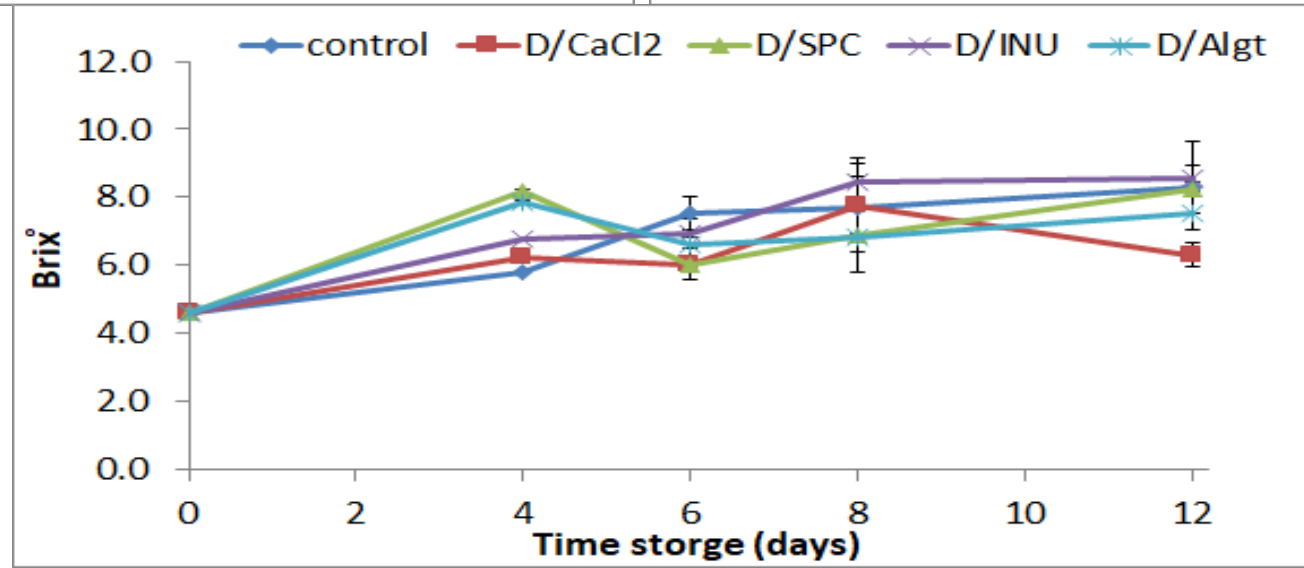
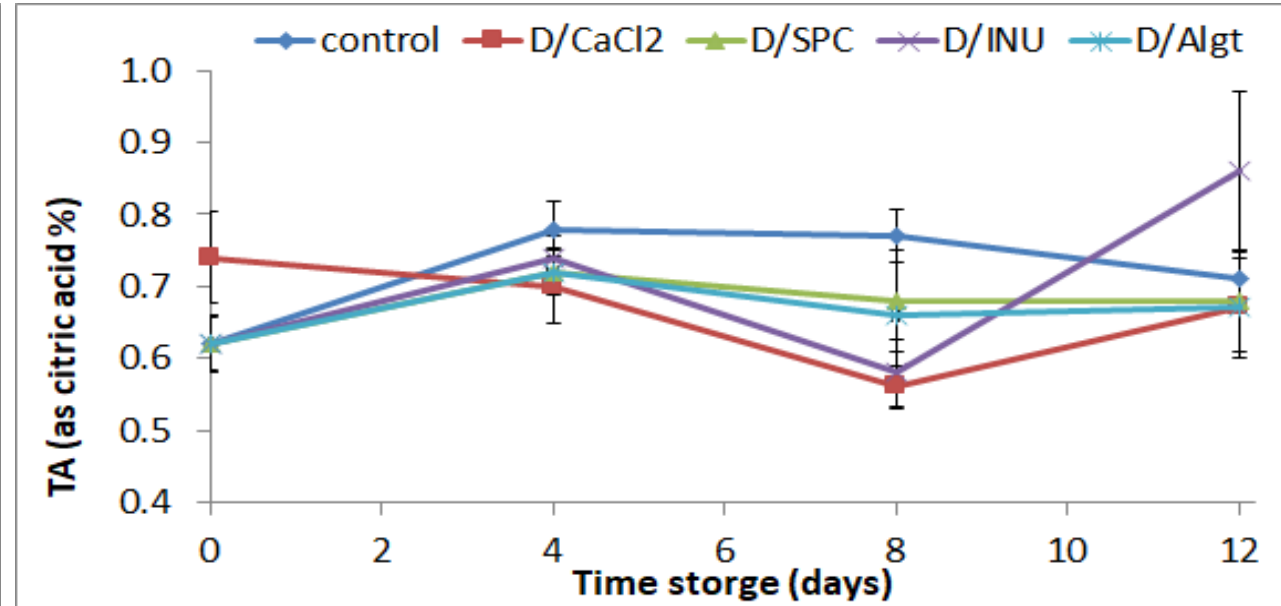
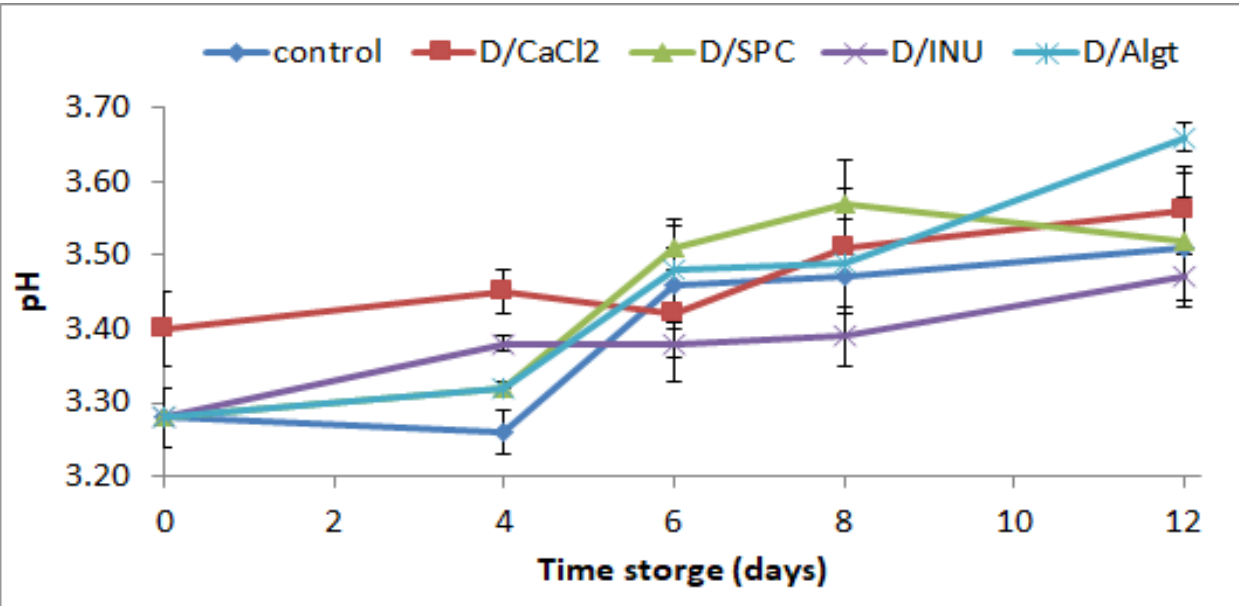
**Titration
TA**



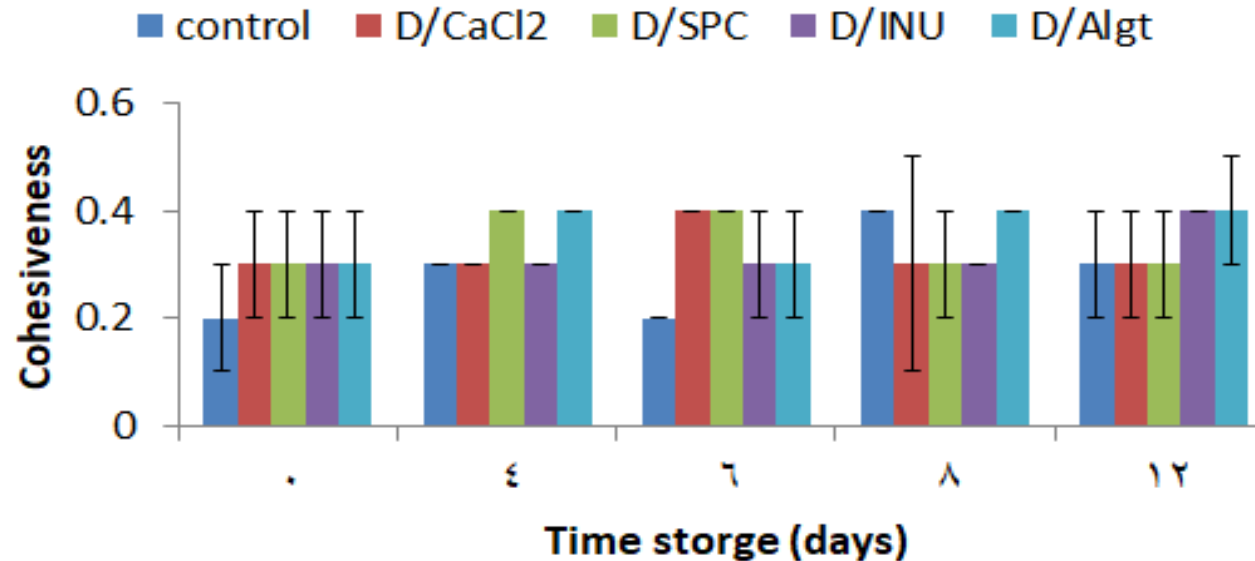
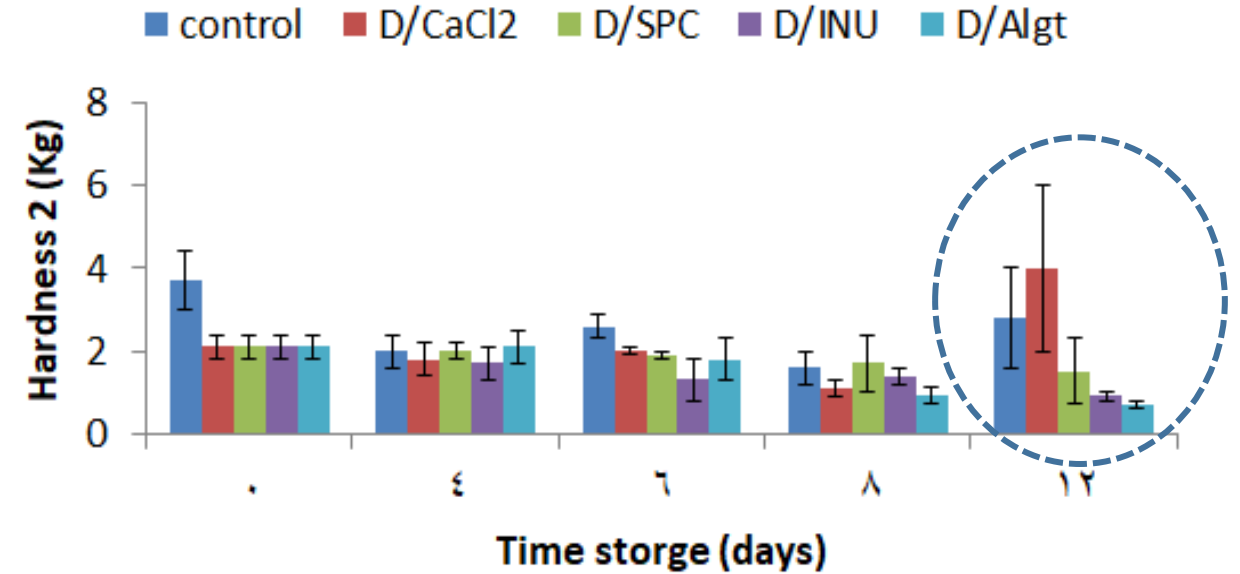
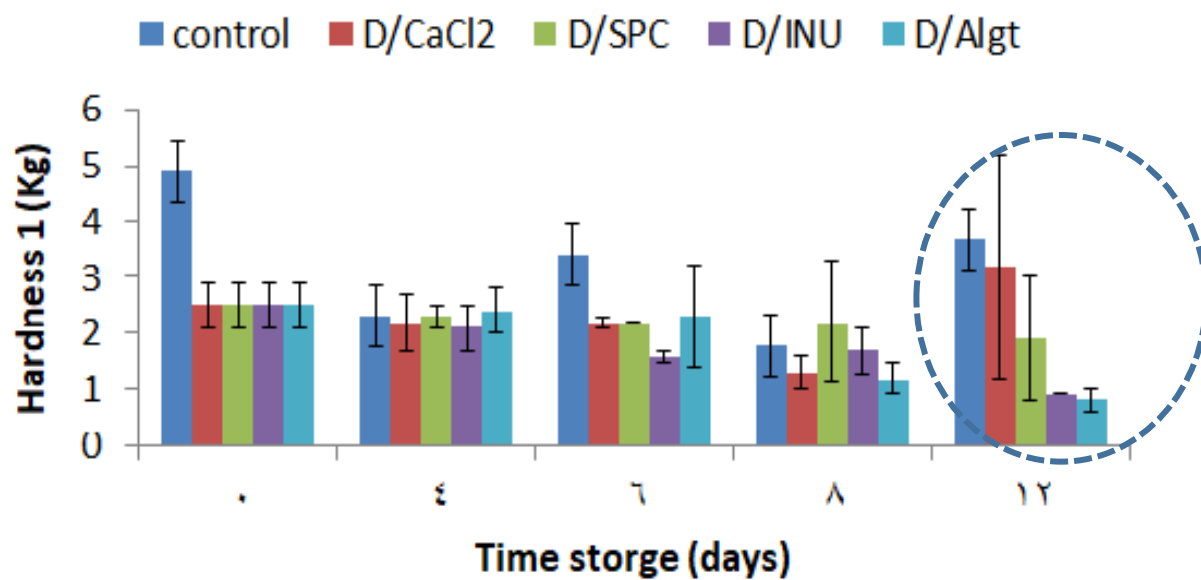
CT4 Texture analyzer

- Hardness 1
- Hardness 2
- Cohesiveness
- Springiness
- Gumminess
- Chewiness

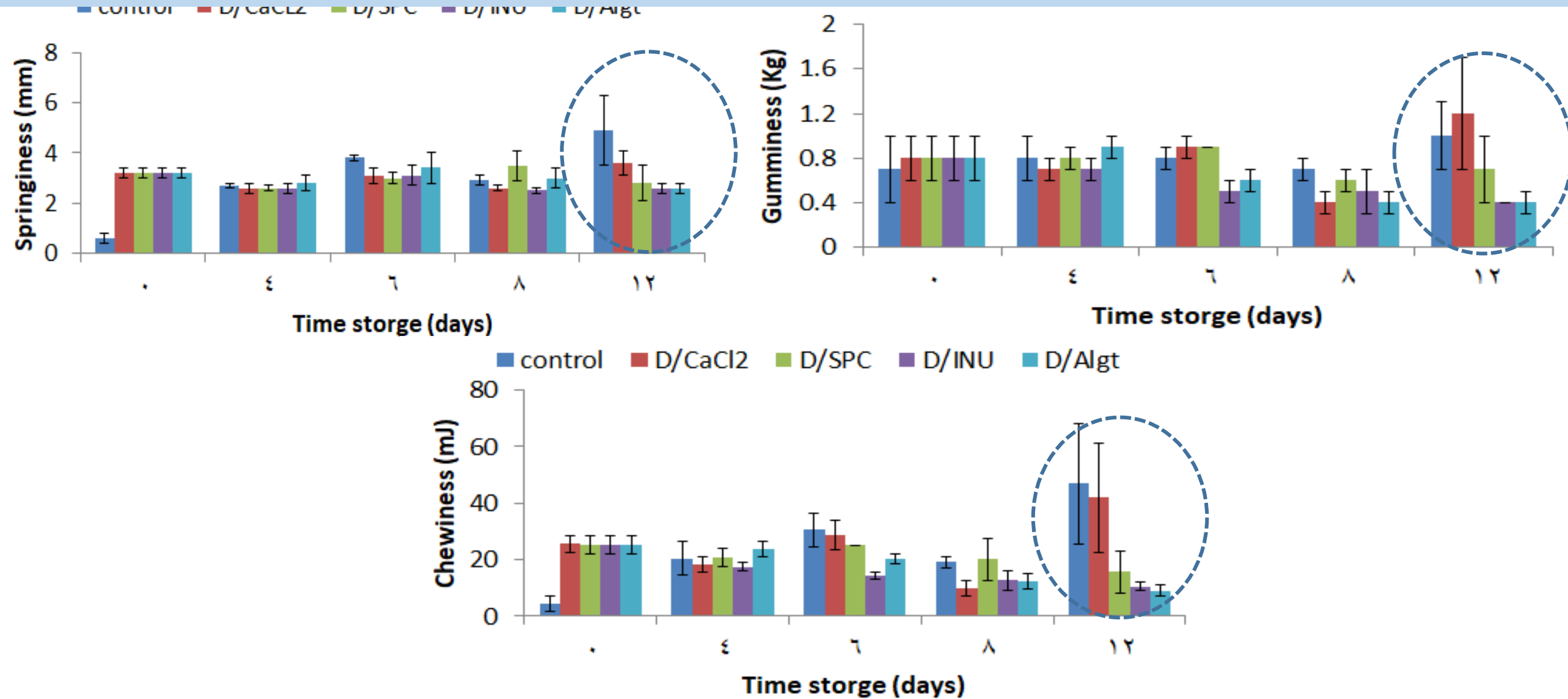
Effect of Different Coating Solutions and Storage Time on (pH ,TA and Brix) of Strawberry Stored at 4 °C



Effect of Different Coating Solutions and Storage Time on (Hardness 1 ,Hardness 2 , Cohesiveness) of Strawberry Stored at 4°C



Effect of Different Coating Solutions and Storage on(Springiness , Gumminess , Chewiness) time of Strawberry Stored at 4° C



References

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