



Bogor Agricultural University

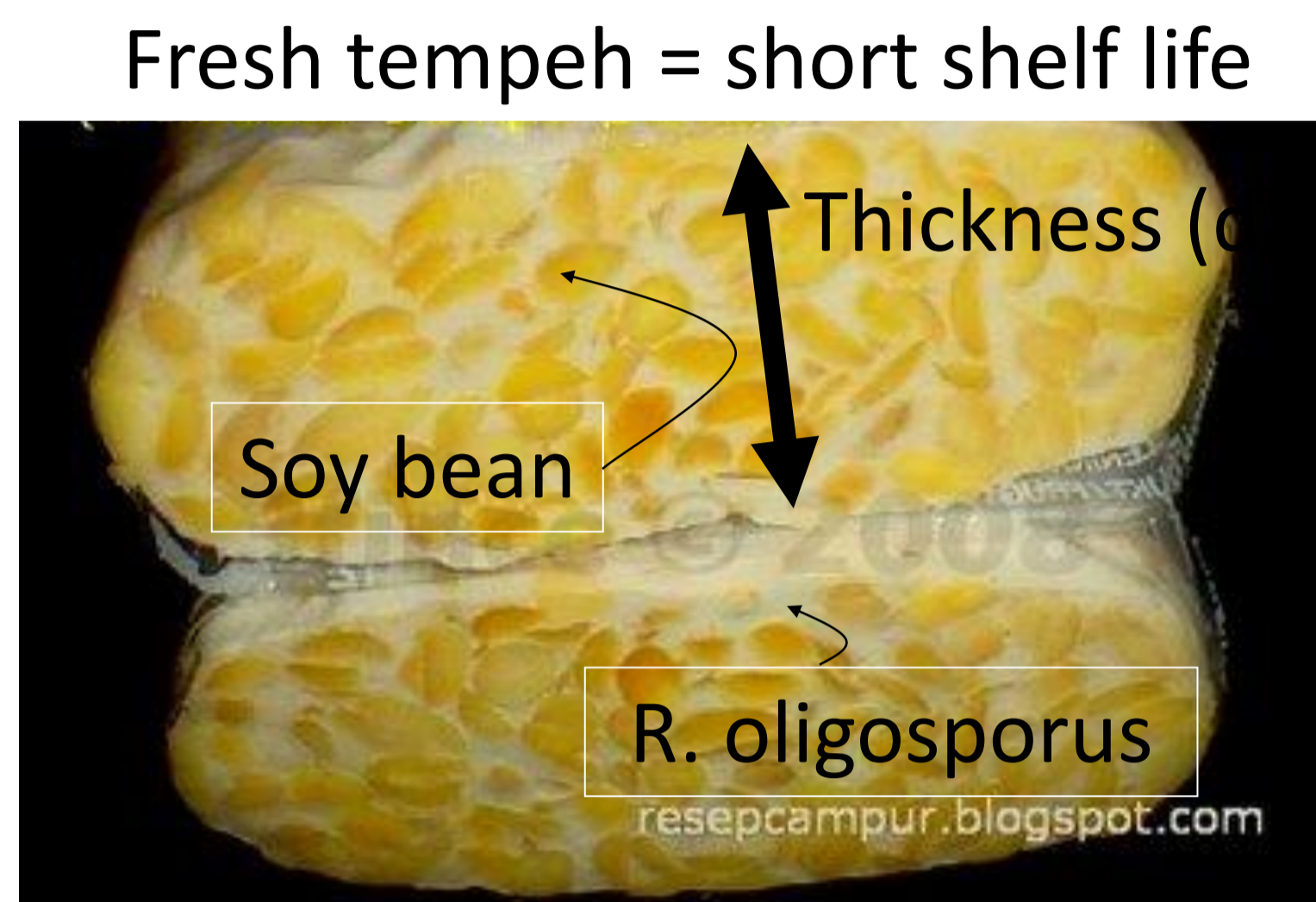
Effect of Sterilization Dosage, Medium, and Tempeh Thickness on Physical Properties and Nutrition Value of Canned Tempeh

Eko Hari Purnomo^{1,2}, Winiati P. Rahayu¹, Purwiyatno Hariyadi^{1,2}, Lilis Nuraida^{1,2}, and Stella Darmadi¹

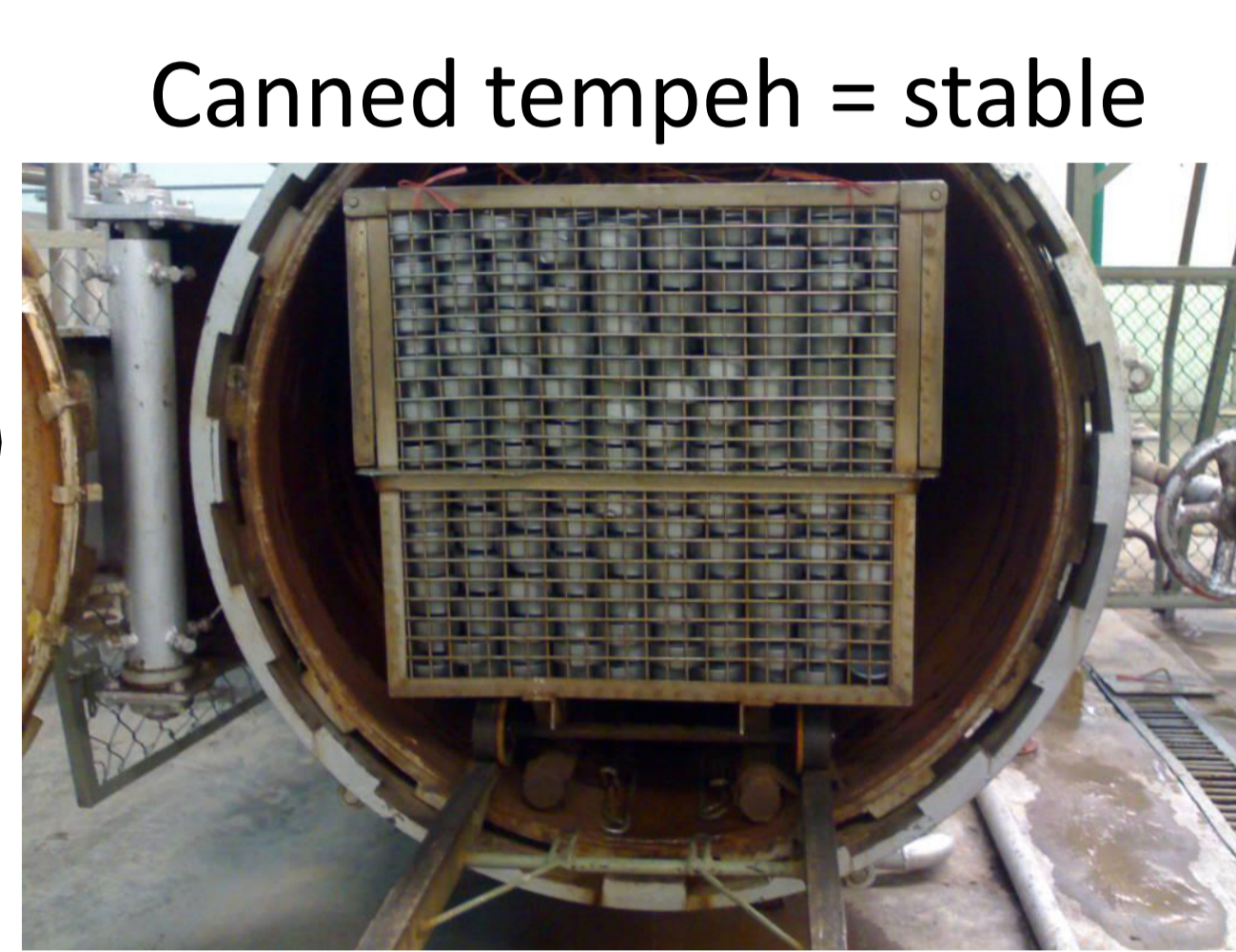
¹ Department of Food Science and Technology, IPB, Indonesia

² Southeast Asian Food and Agricultural Science and Technology (SEAFAST) Center, IPB, Indonesia

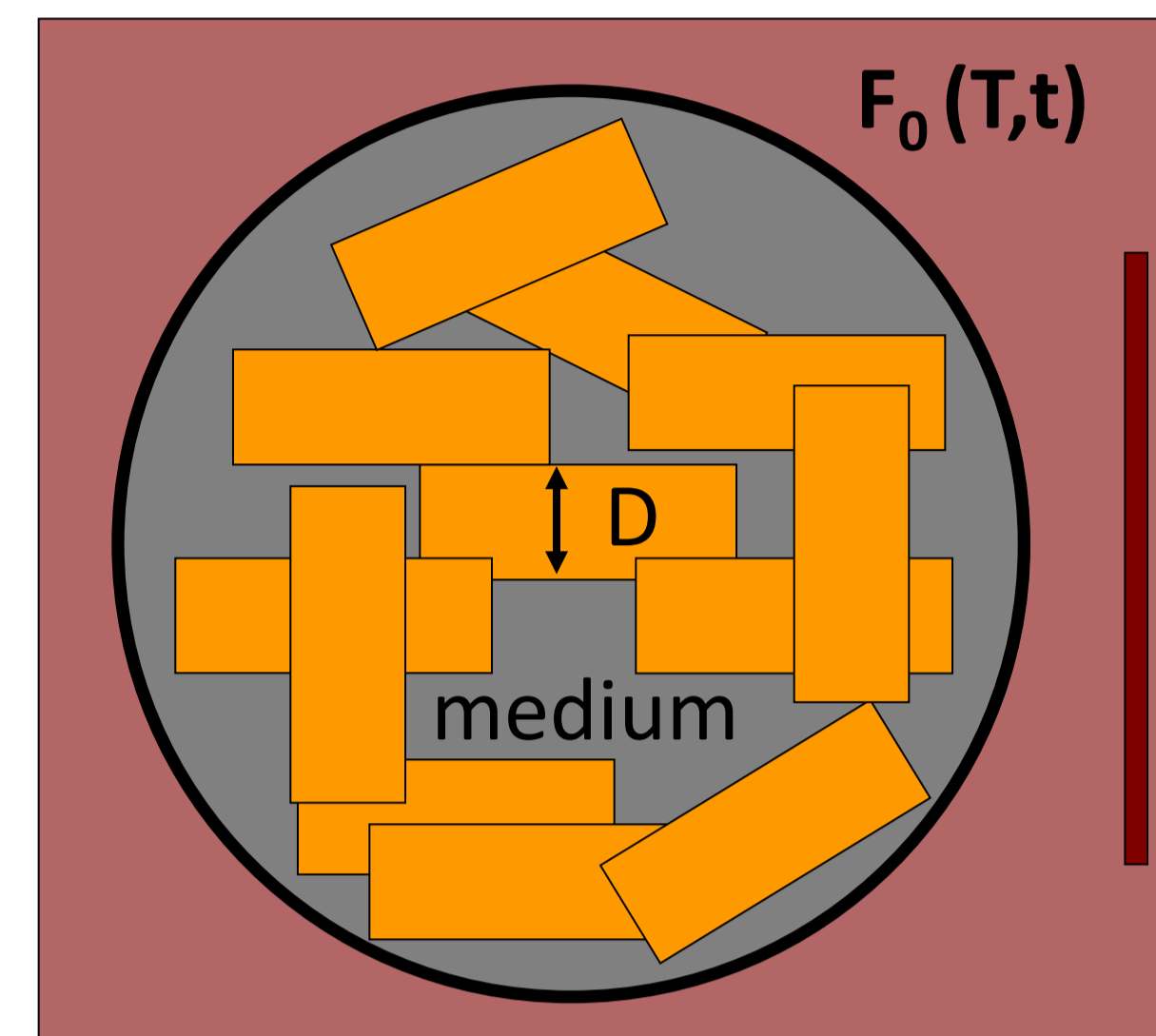
OBJECTIVES



Fresh tempeh = short shelf life



Canned tempeh = stable



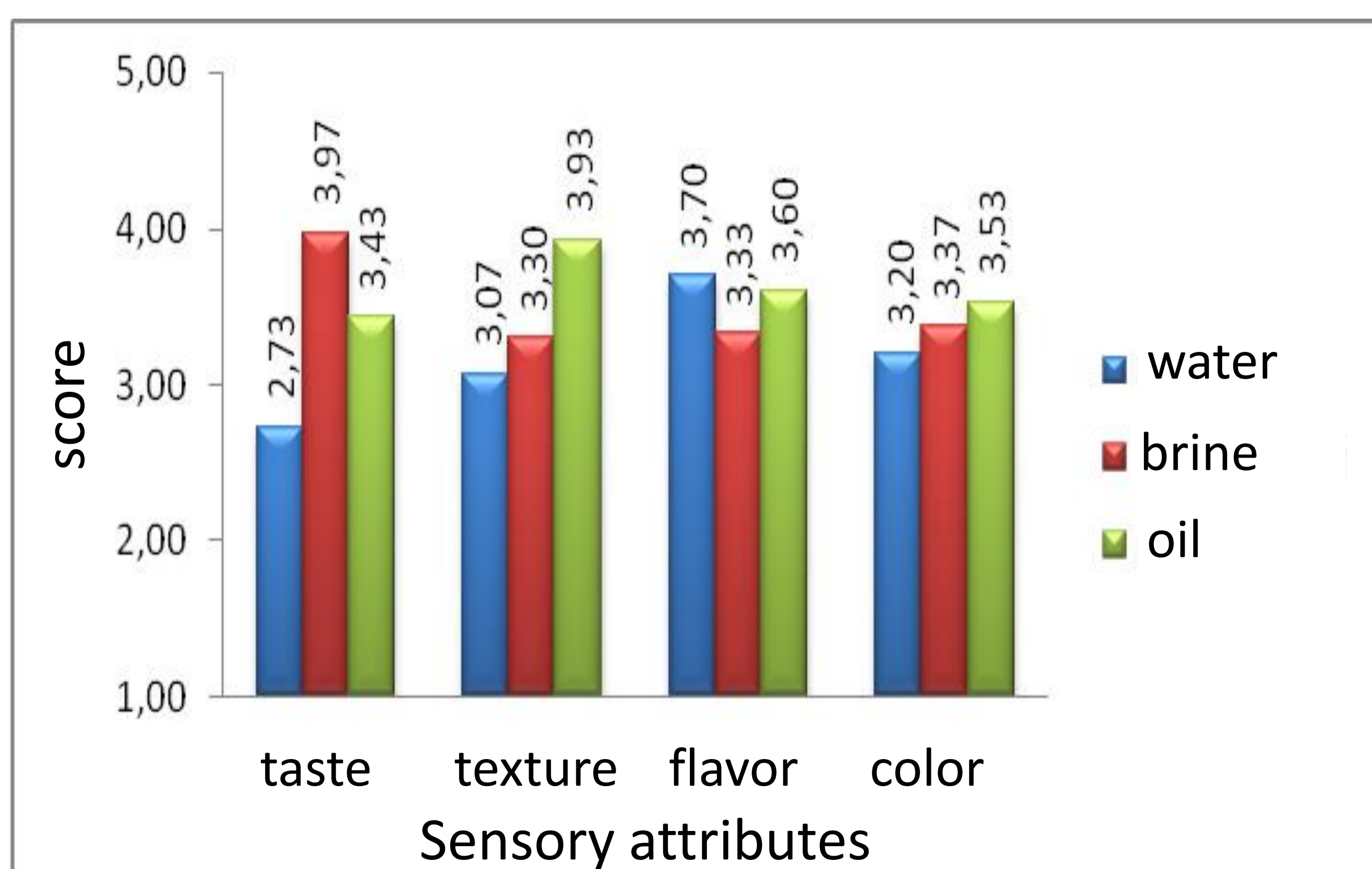
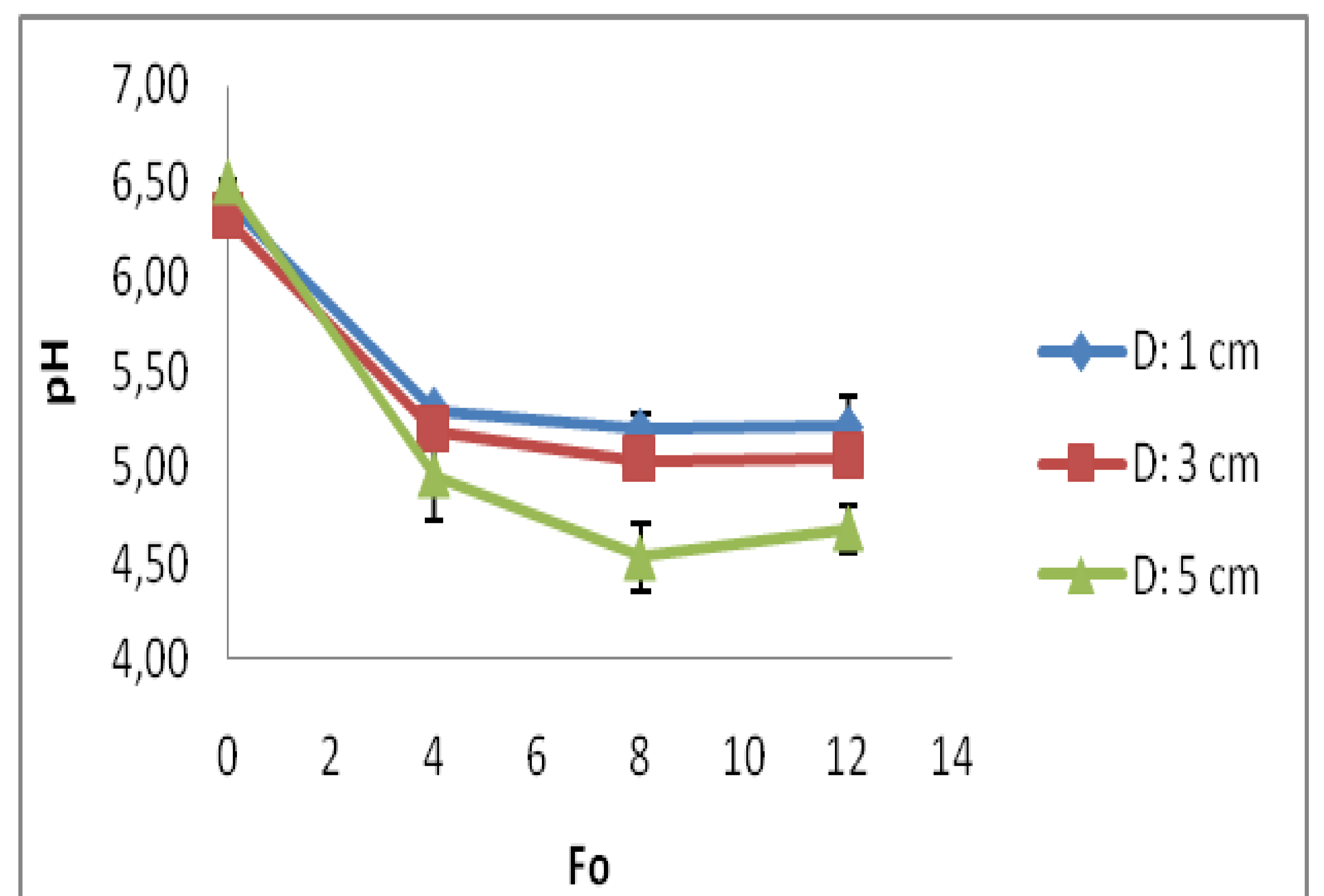
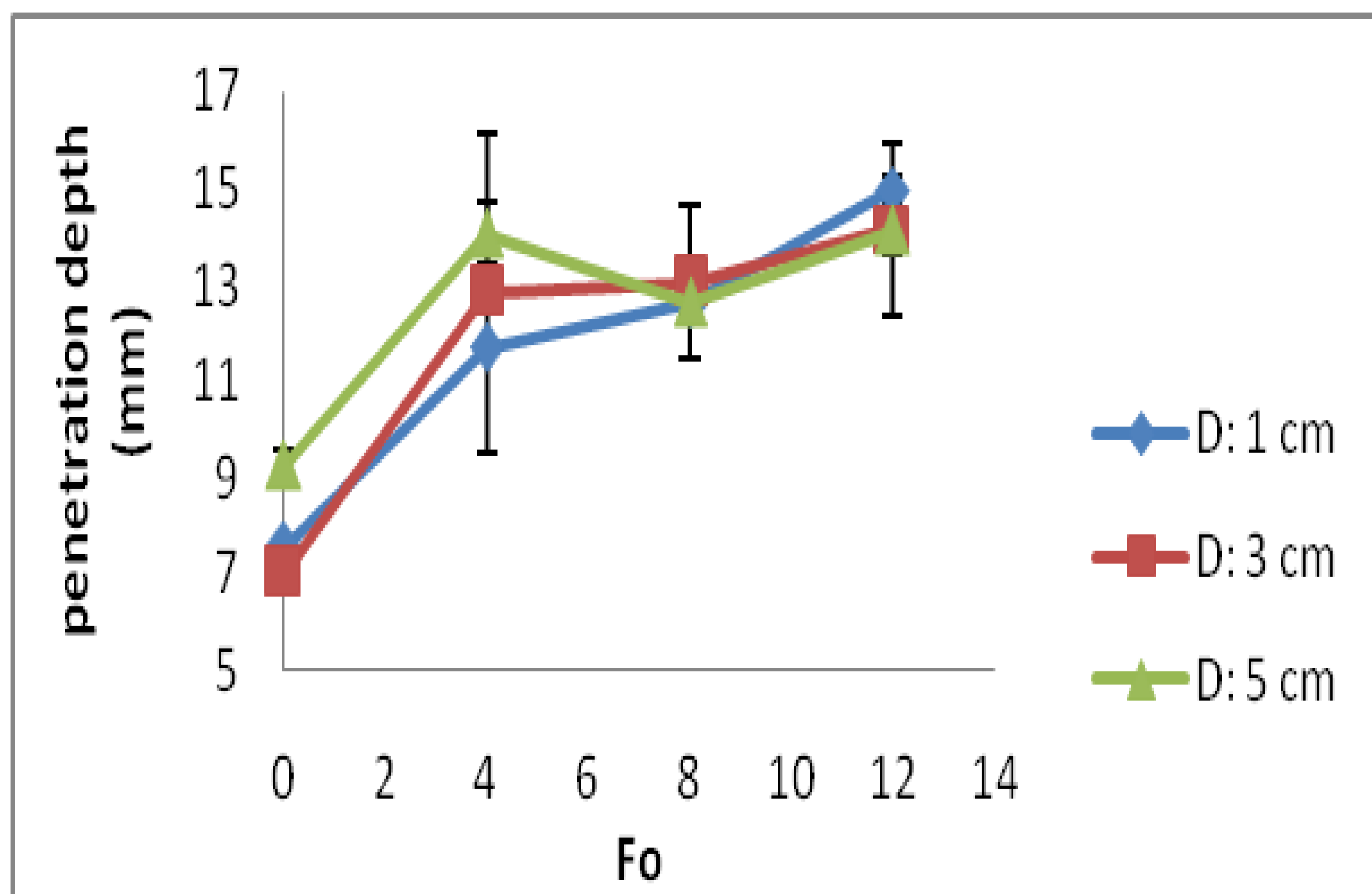
What are their effects to:

- Physical properties
- Nutrition
- Sensory

METHOD

Tempeh of different thicknesses and canned in different mediums (water, brine, oil) at different levels of F_0 (obtained from different combinations of time and temperatures) were analyzed for their hardness, pH, isoflavone, and sensory.

RESULTS



Type of tempeh	Daidzein (mg)	Genistein (mg)
Fresh tempeh ^{a)}	17.59	24.85
Fresh tempeh ^{b)}	26.00±6.00	28.00±11.00
Sterilized tempeh	2.40	2.95
Fried tempeh ^{b)}	35.00±11.00	31.00±11.00
Fermented tempeh ^{c)}	8.00	7.20

Source: ^{a)} Muchtadi (2010) ^{b)} Haron *et.al* (2009) ^{c)} Nakajima (2005)

CONCLUSIONS

- Canned tempeh is softer as well as has lower pH and isoflavone content than fresh tempeh
- Tempeh hardness and its pH depend on F_0 (regardless of its time-temperature combination)
- In general, canned tempeh in oil is more acceptable by panelists