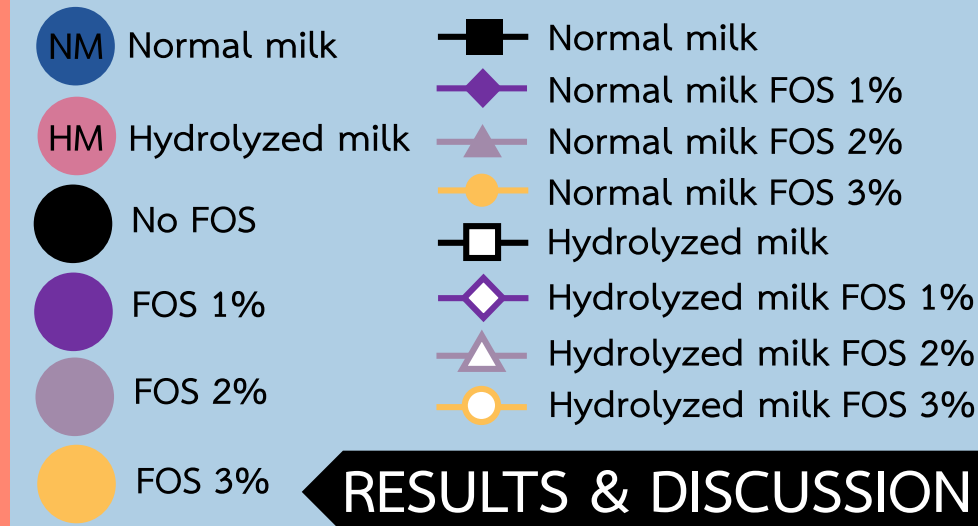
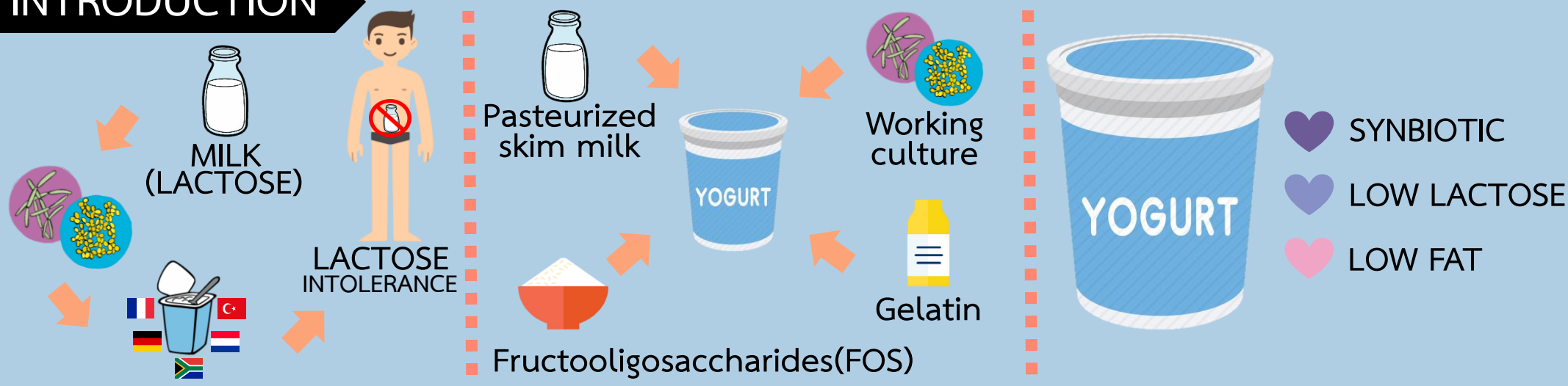


ABSTRACT

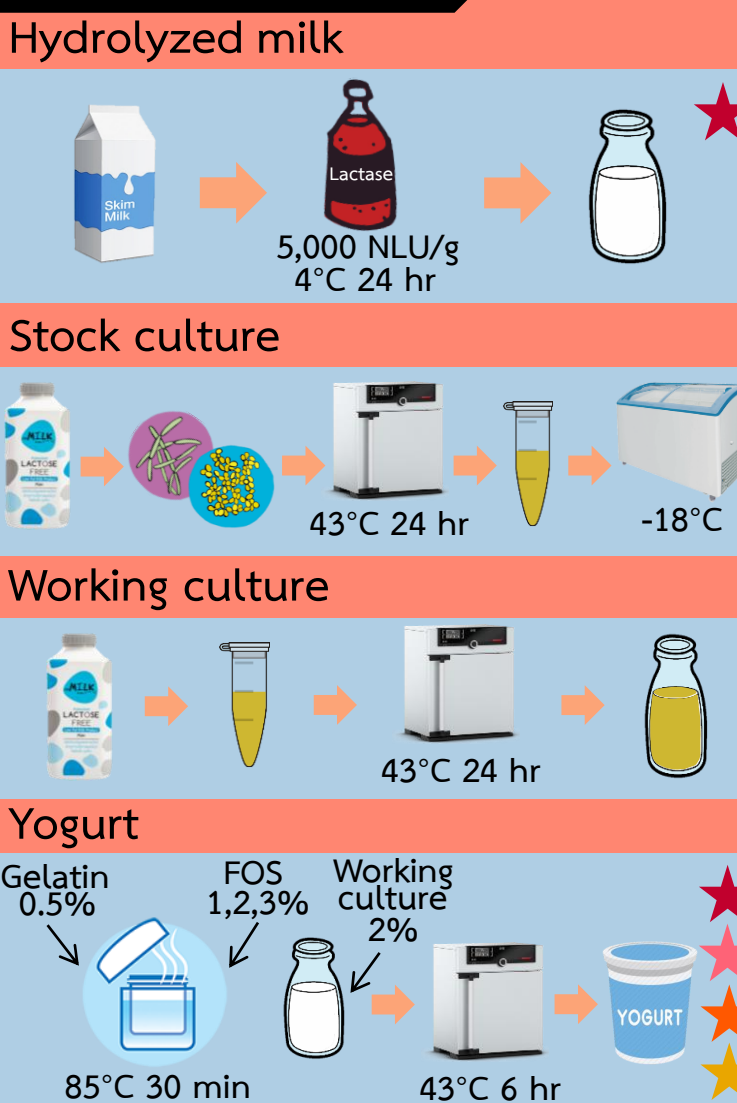
Yogurt is a fermented dairy product believed to improve lactose intolerance, although researchers have shown significant amount of lactose remained in yogurts. The aim of this study was to produce yogurts with lower lactose content from enzymatically hydrolyzed milk, and to evaluate physical, chemical, microbiological and sensory properties of yogurts during storage. The normal yogurt (NY) and hydrolyzed yogurt (HY) were supplemented with fructooligosaccharides (FOS) 1%, 2% and 3% as prebiotic. Starter culture (ABY-3) containing *Bifidobacterium* species, *Lactobacillus acidophilus*, *Lactobacillus delbrueckii* subsp. *bulgaricus*, *Streptococcus thermophilus* was inoculated and samples were incubated at 43°C for 6 hours and stored at 4 °C for 21 days. The results showed that fructooligosaccharides (FOS) supplementation decreased the firmness of yogurts and increased the G' values of yogurts. Fructooligosaccharides (FOS) supplement did not have a significant effect on %syneresis, amount of lactic acid bacteria, pH and color ($p>0.05$). Yogurts made from hydrolyzed milk had lower firmness and higher pH compared to yogurts made from non-hydrolyzed milk. Lactose hydrolysis did not have a significant effect on %syneresis, amount of lactic acid bacteria, rheological properties and color of yogurts ($p>0.05$).

INTRODUCTION



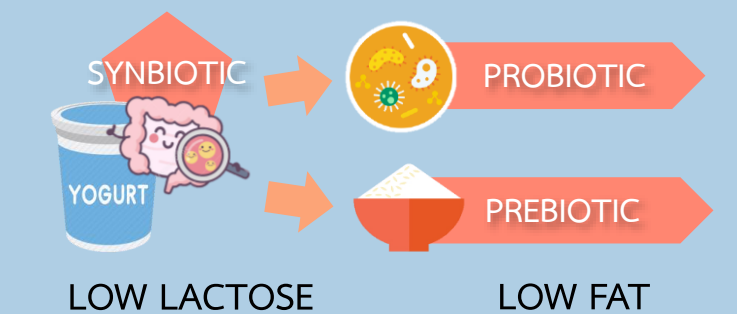
RESULTS & DISCUSSION

METHODS



- ★ Chemical analysis: pH values, Total sugar
- ★ Physicochemical analysis: Color, Syneresis, Rheology, Texture profile, Microstructure
- ★ Biological analysis: Lactic acid bacteria, Bile and acid tolerance
- ★ Sensory evaluation

INNOVATION OF PRODUCT

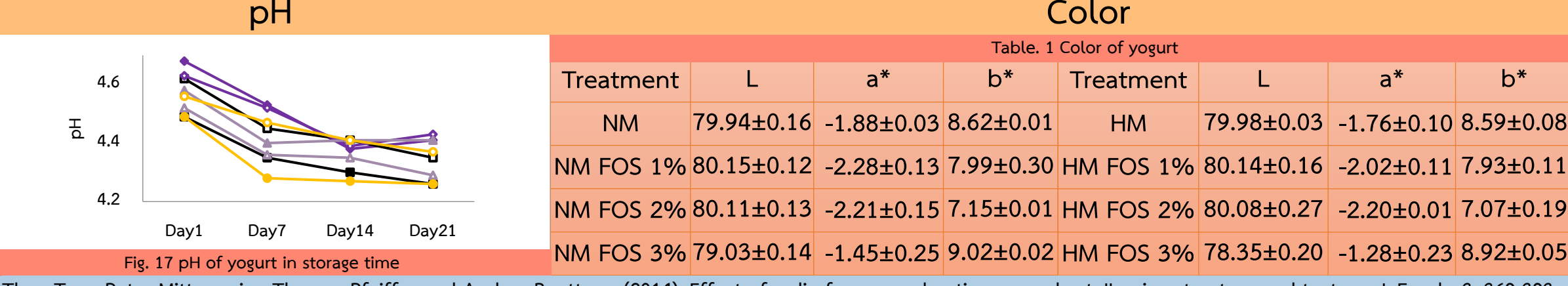
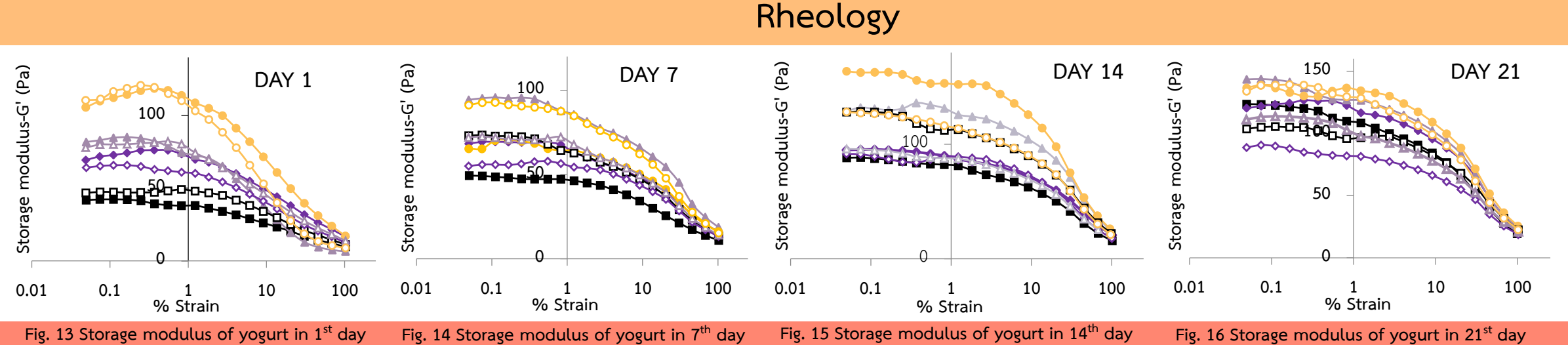
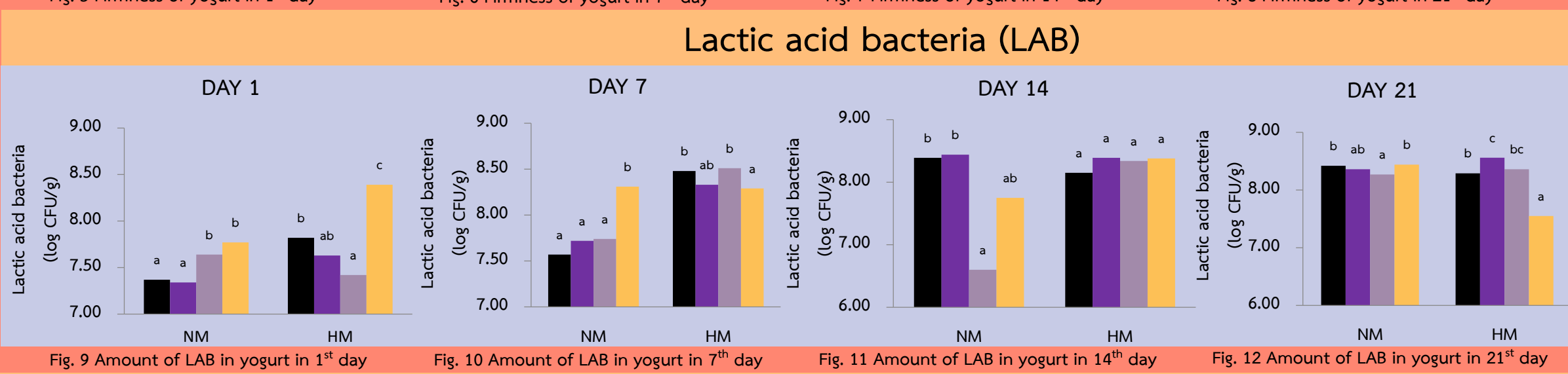
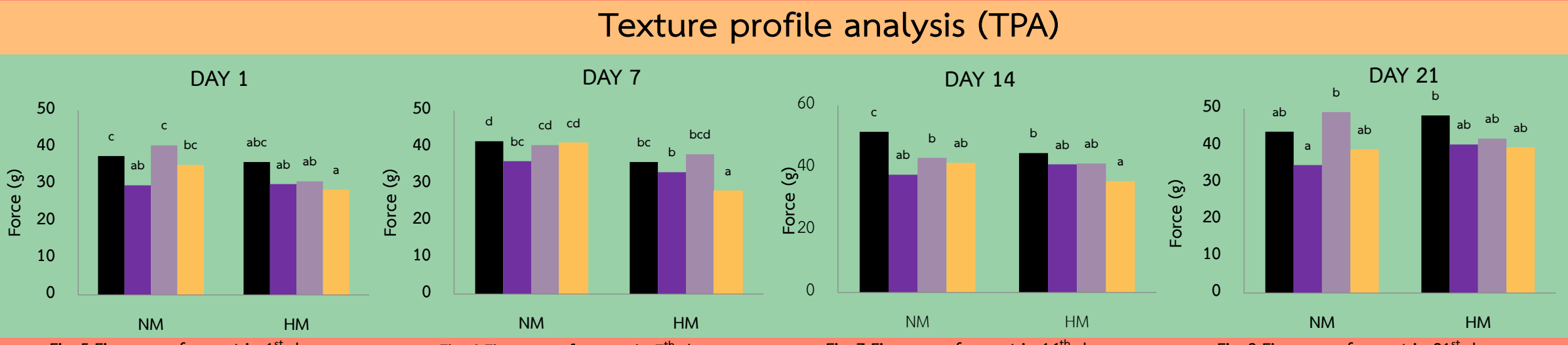
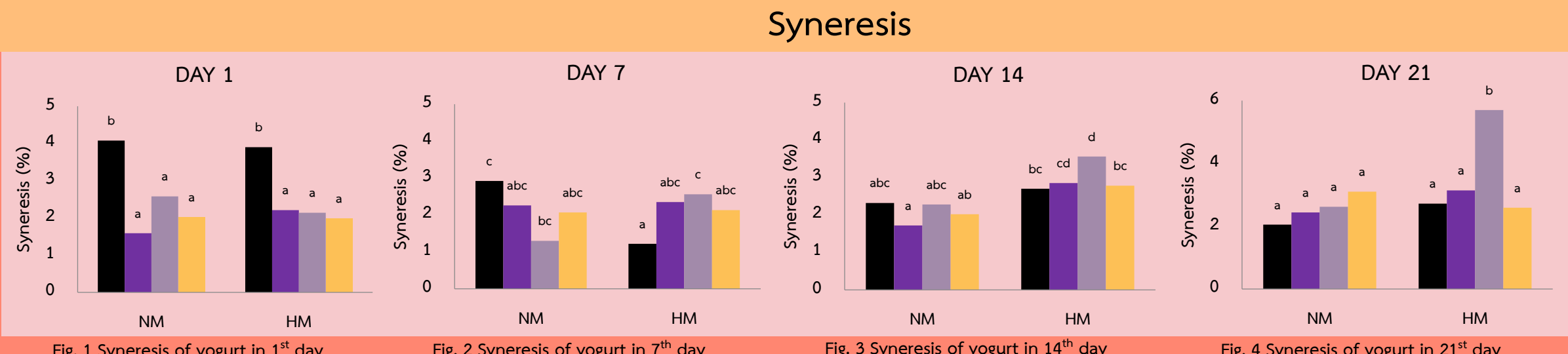


CONCLUSION

Yogurt made from hydrolyzed milk were decrease firmness. Fructooligosaccharides (FOS) supplementation were decrease firmness but increase G' values

REFERENCES

Caroline Siefarth, Thi Bich Thao Tran, Peter Mittermaier, Thomas Pfeiffer and Andrea Buettner. (2014). Effect of radio frequency heating on yoghurt, II: microstructure and texture. J. Foods. 3 :369-393. Krivorotova T., Sereikaite J., Glibowski P. (2017). Rheological and textural properties of yogurts enriched with jerusalem artichoke flour. Czech J. Food Sci. 35 :00-00.



Treatment	L	a*	b*	Treatment	L	a*	b*
NM	79.94±0.16	-1.88±0.03	8.62±0.01	HM	79.98±0.03	-1.76±0.10	8.59±0.08
NM FOS 1%	80.15±0.12	-2.28±0.13	7.99±0.30	HM FOS 1%	80.14±0.16	-2.02±0.11	7.93±0.11
NM FOS 2%	80.11±0.13	-2.21±0.15	7.15±0.01	HM FOS 2%	80.08±0.27	-2.20±0.01	7.07±0.19
NM FOS 3%	79.03±0.14	-1.45±0.25	9.02±0.02	HM FOS 3%	78.35±0.20	-1.28±0.23	8.92±0.05