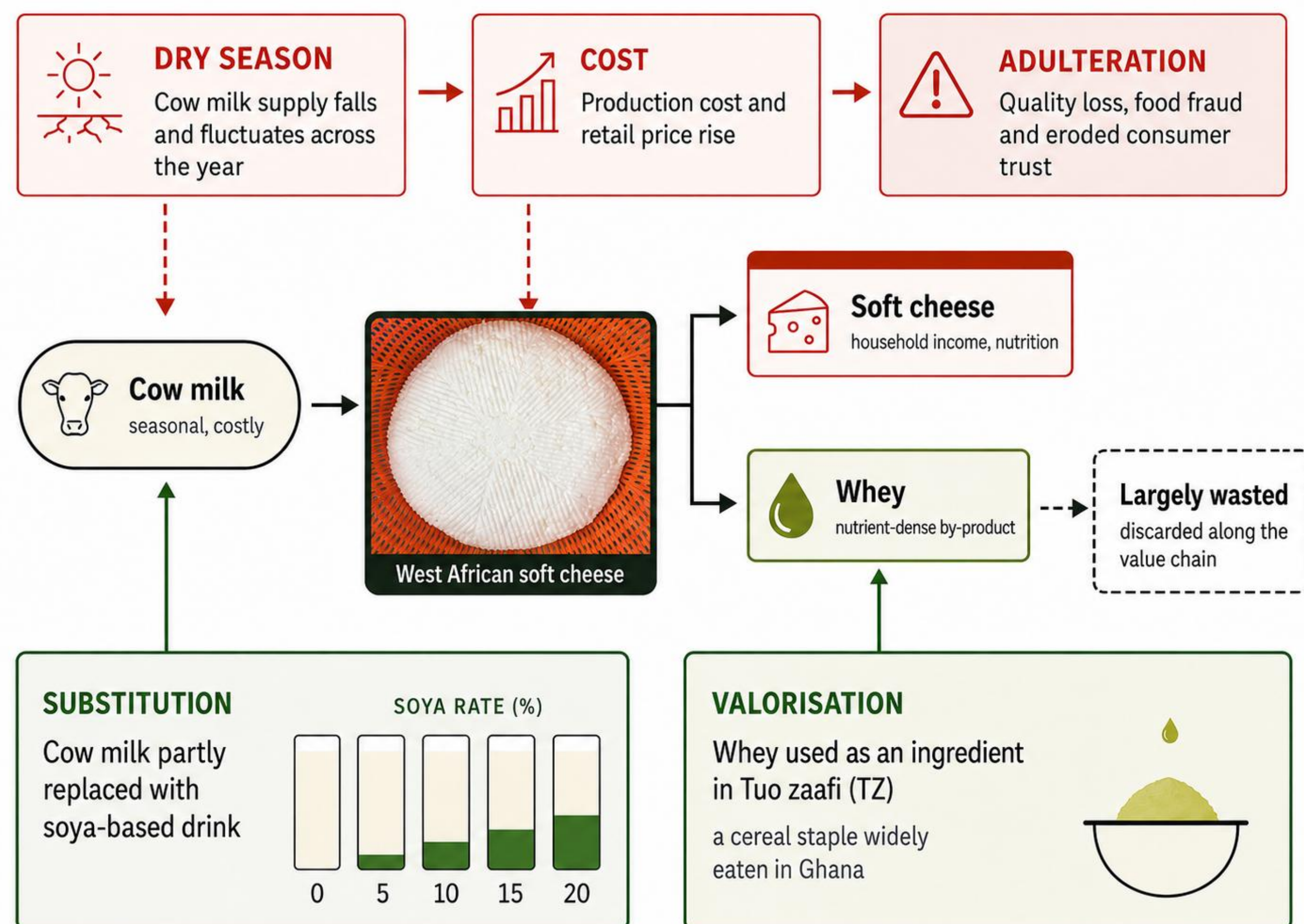


Introduction



Methods



Cheese yield assessment across six independent replicates (production batches).



Sensory evaluation by 30 semi-trained panellists in a non replicated full cross-over design.



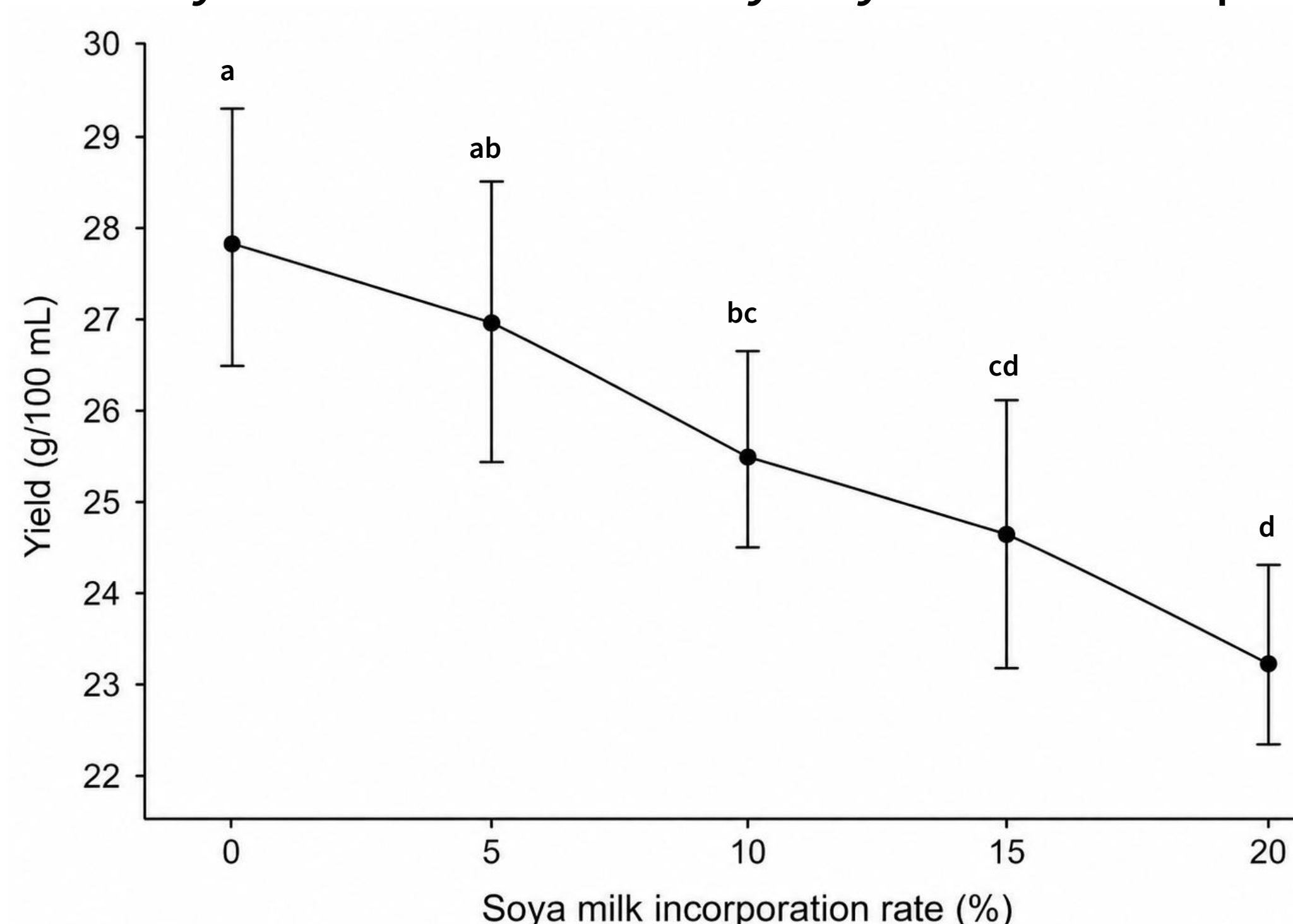
Check-All-That-Apply (CATA) questionnaire with 23 descriptors, including liking and ideal product.

Nutritional evaluation of conventional Tuo zaafi (TZ) and up to 40% whey-based TZ.

Statistical analysis: ANOVA, Cochran Q test, correspondence analysis (CA).

Results & Discussion

Cheese yield was affected by soya milk incorporation rate ($p < 0.001$).



Cheese yield decreases as soya milk incorporation rate increase.

Cochran's Q test showed no significant differences among samples for any sensory attribute ($p > 0.05$).

The first two dimensions of the CA explained 70.32% of the total inertia, with no clear sensory differentiation among samples. Overall liking was not significantly affected by soya milk incorporation rate.

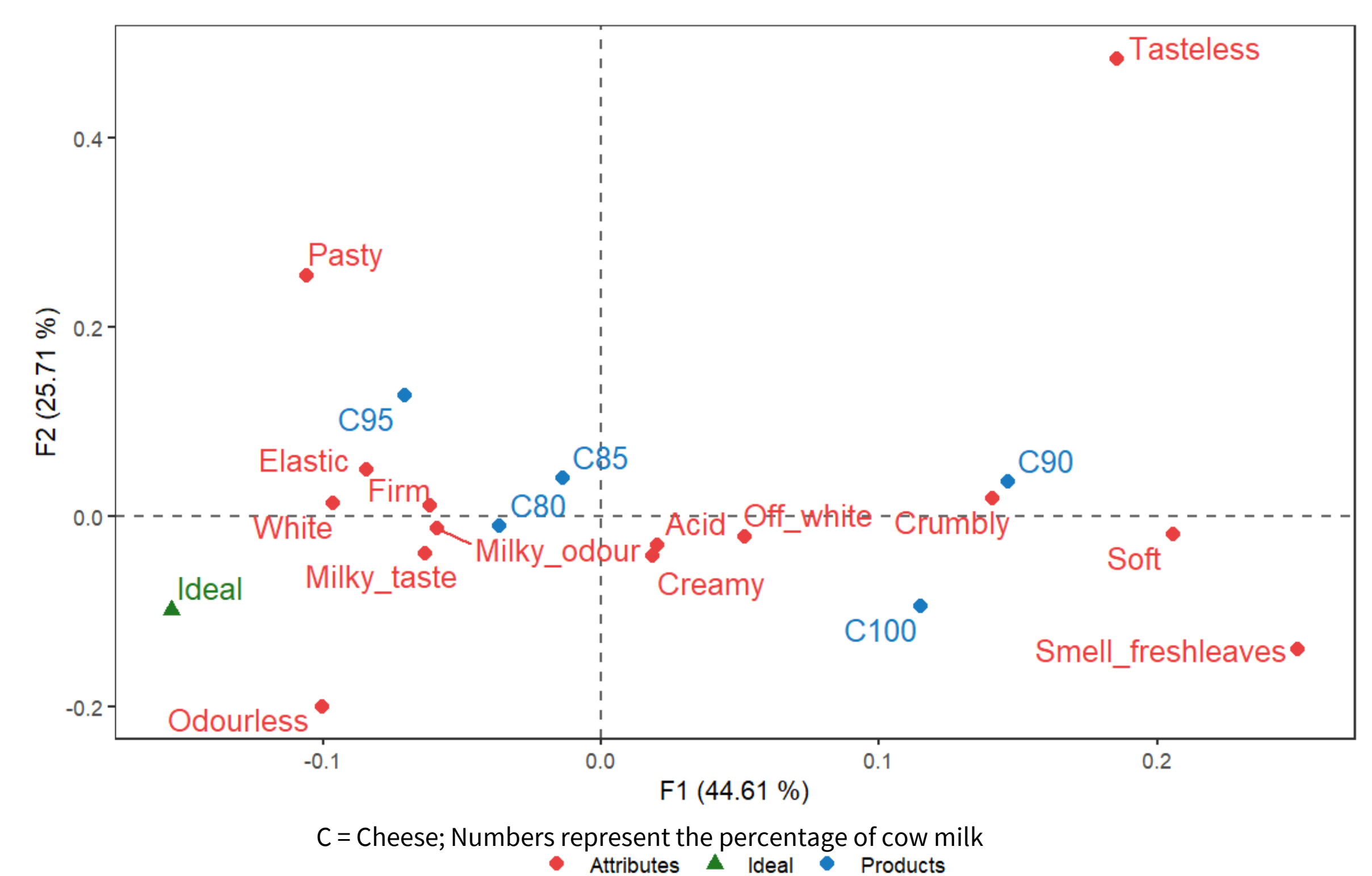
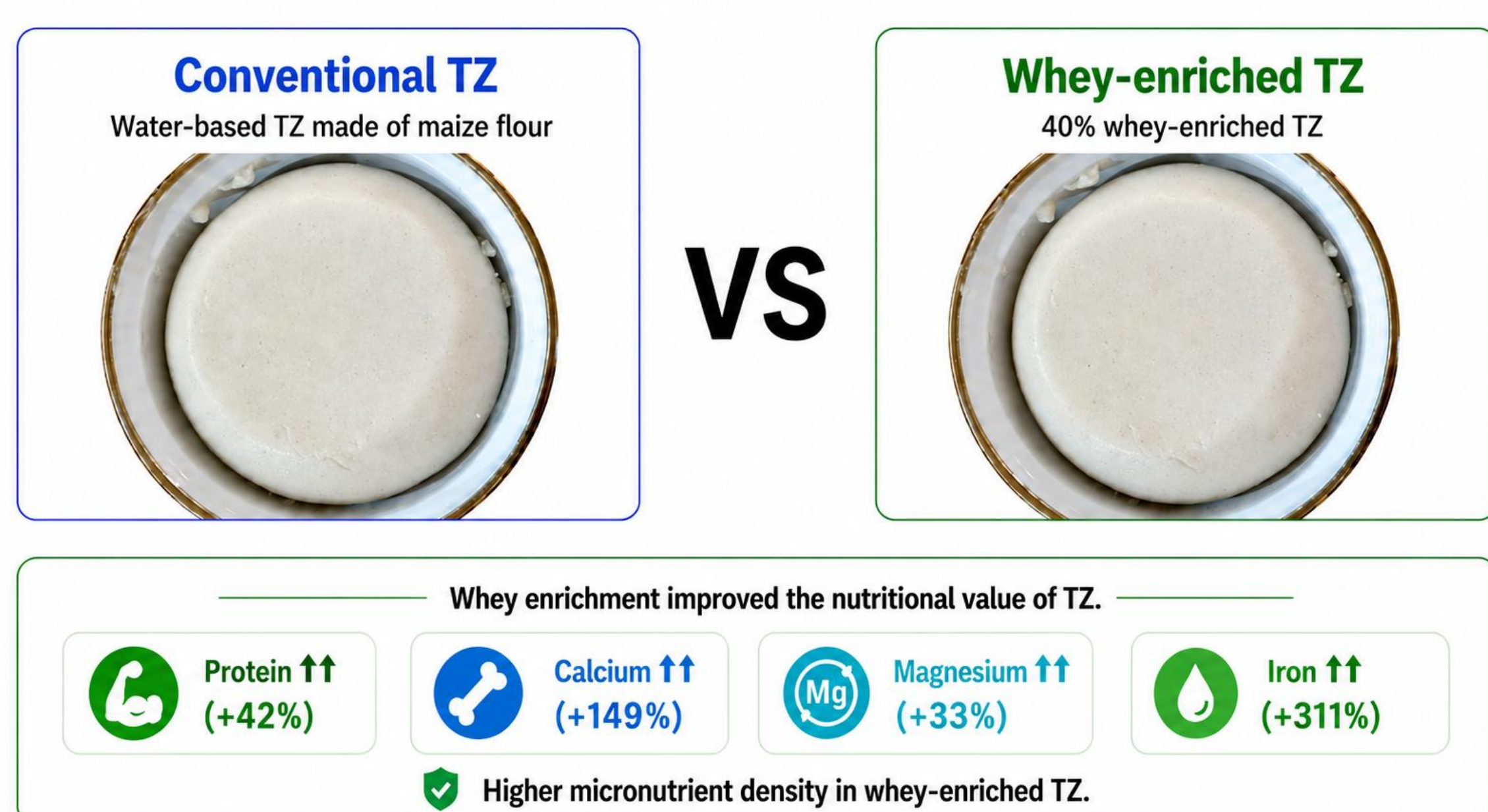


Fig. 3. (a) Representation of WASC samples and sensory attributes in the CA.



VS

Soya milk up to 20% did not compromise sensory properties.

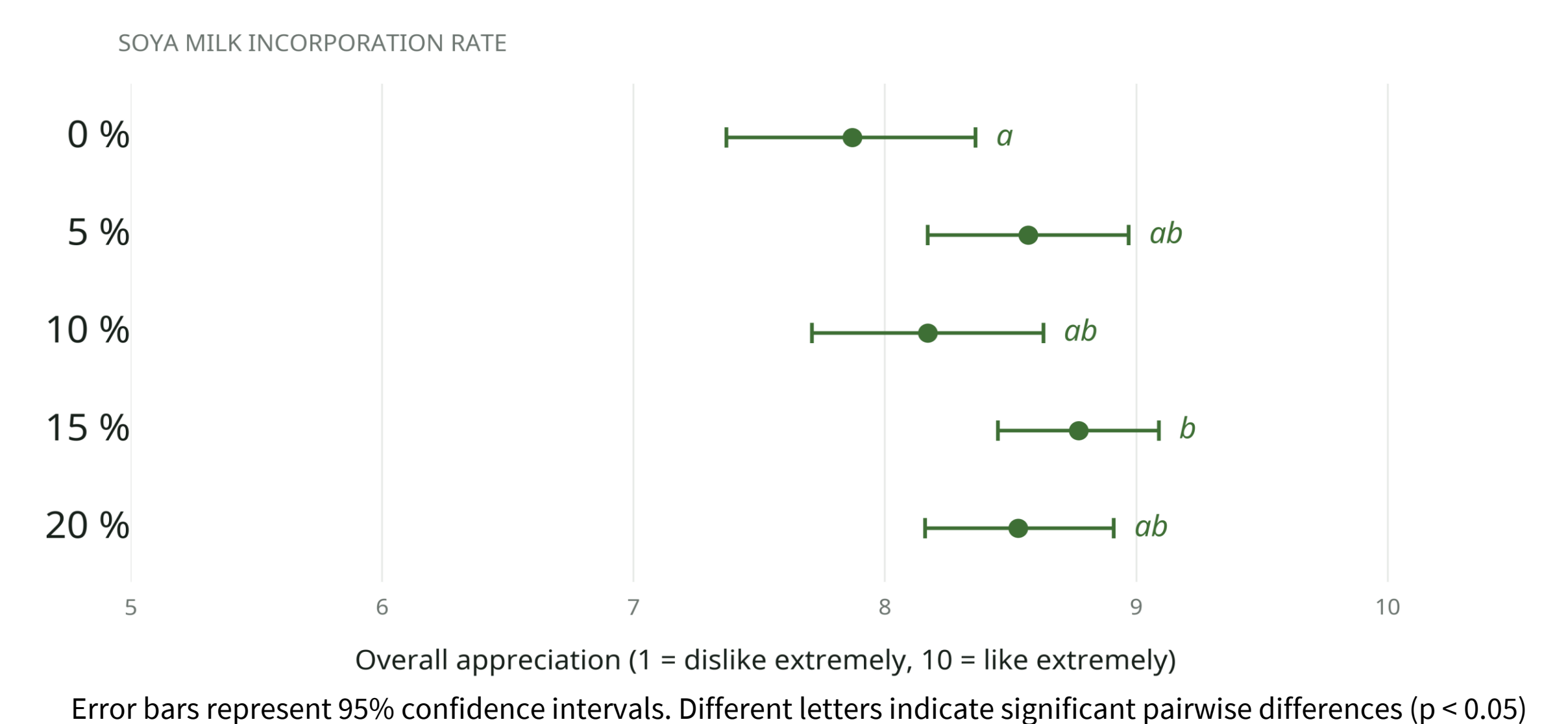


Fig. 3. (b) Overall liking of the WASC samples depending on soya milk share.

Fig. 2. Whey-enriched TZ improve nutritional composition.

Conclusion

Soya milk substitution could help mitigate seasonal milk scarcity although economic assessment and disclaiming is needed. Whey valorisation through staple foods could enhance nutrition and reduce waste.

