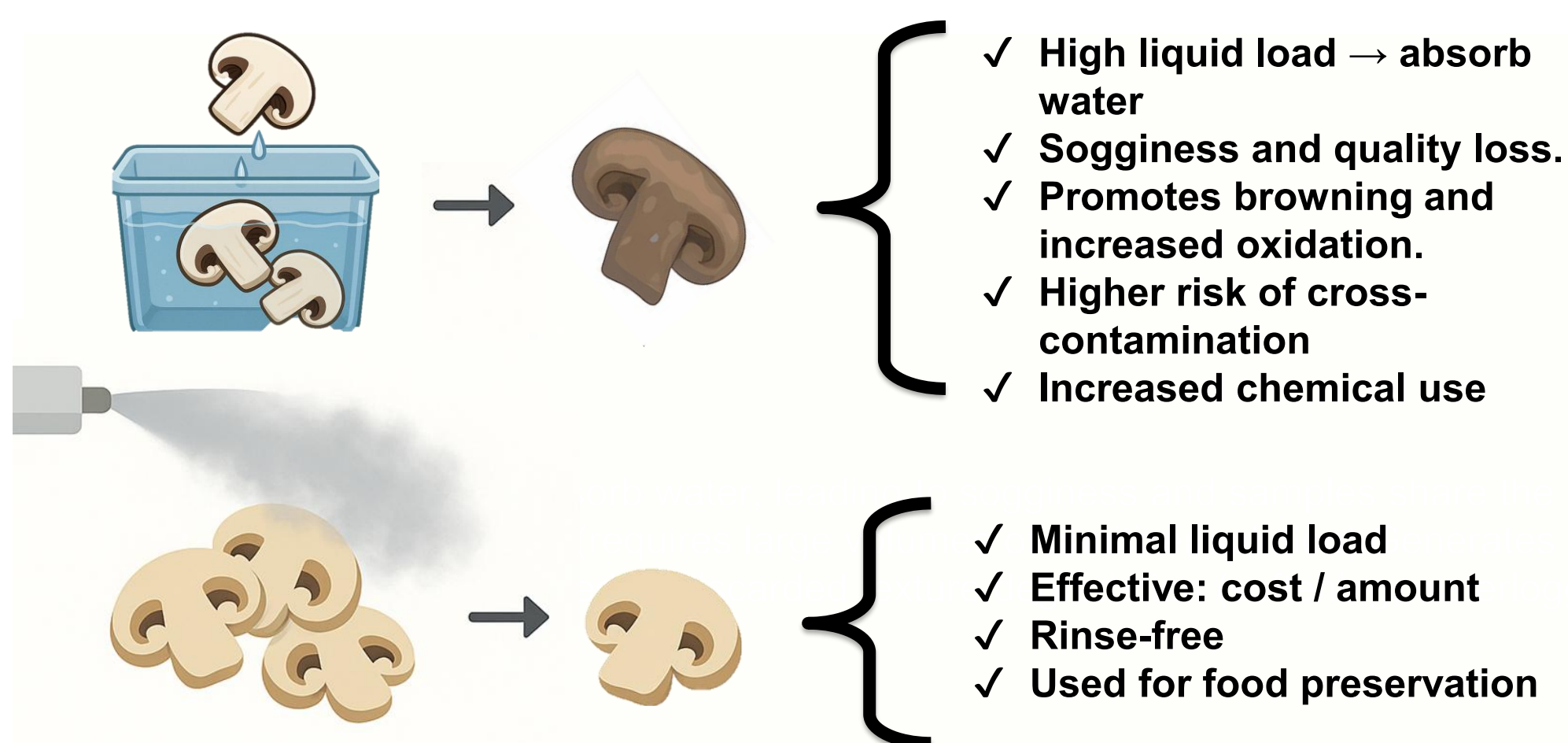


Low-wetting ultrasonic micro-mist as a postharvest treatment for sliced mushrooms (*Agaricus bisporus*)

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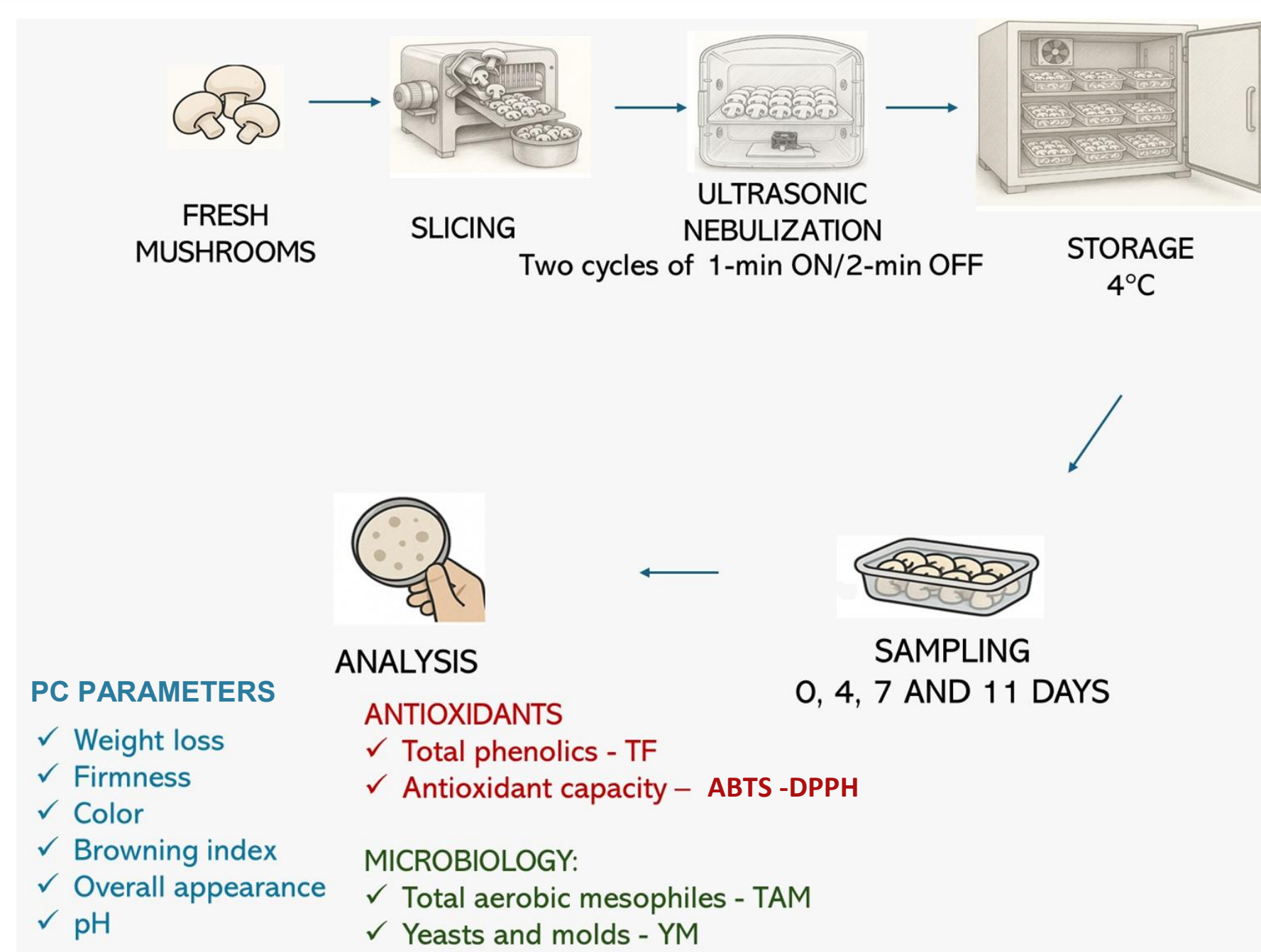
INTRODUCTION & AIM



Evaluate the effect of an ultrasonic nebulization treatment on the quality of sliced mushrooms.

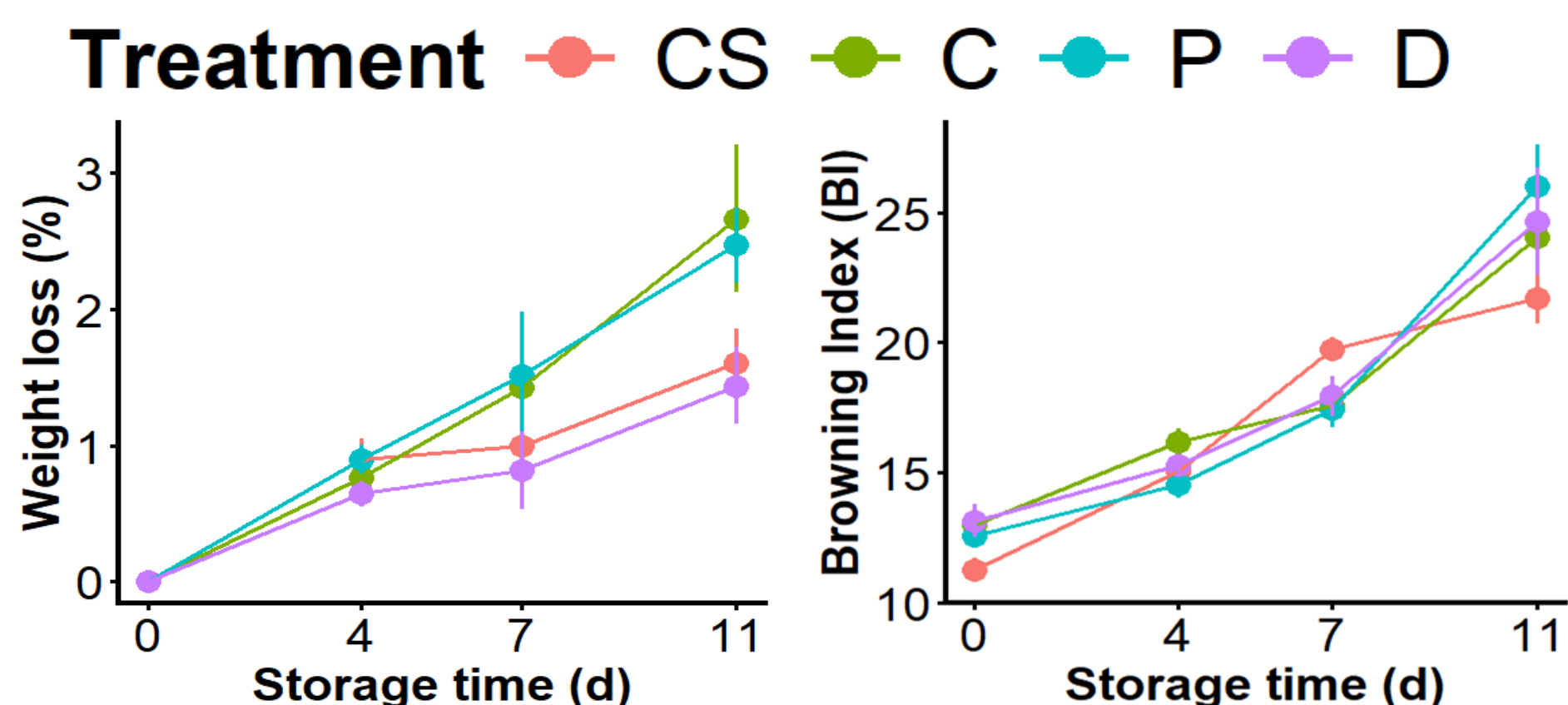
TREATMENTS:
CS: non-nebulized - control
C: water nebulized
P: Peracetic acid, 80 ppm
D: Chlorine dioxide, 5 ppm

METHOD

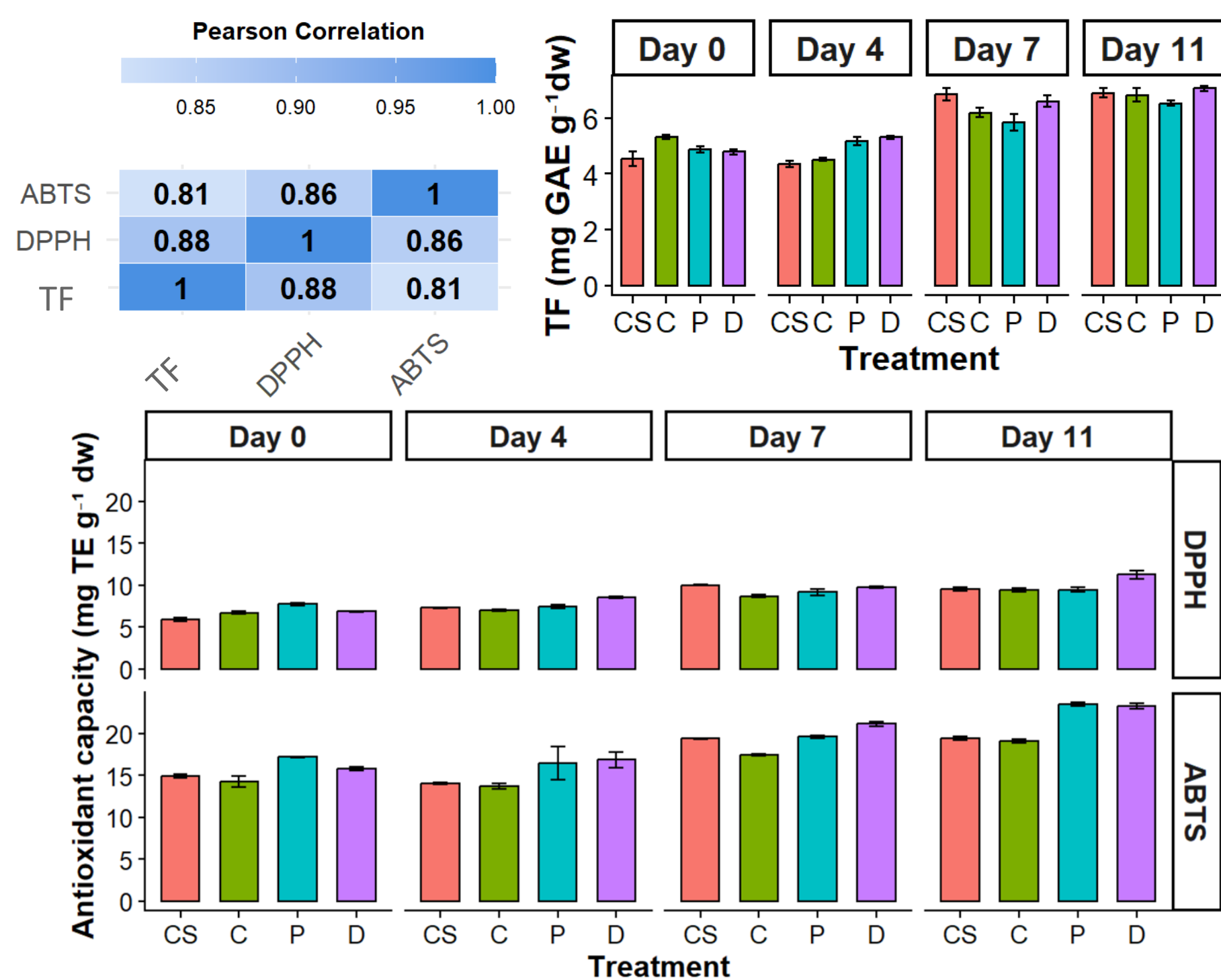


RESULTS & DISCUSSION

PC Parameters



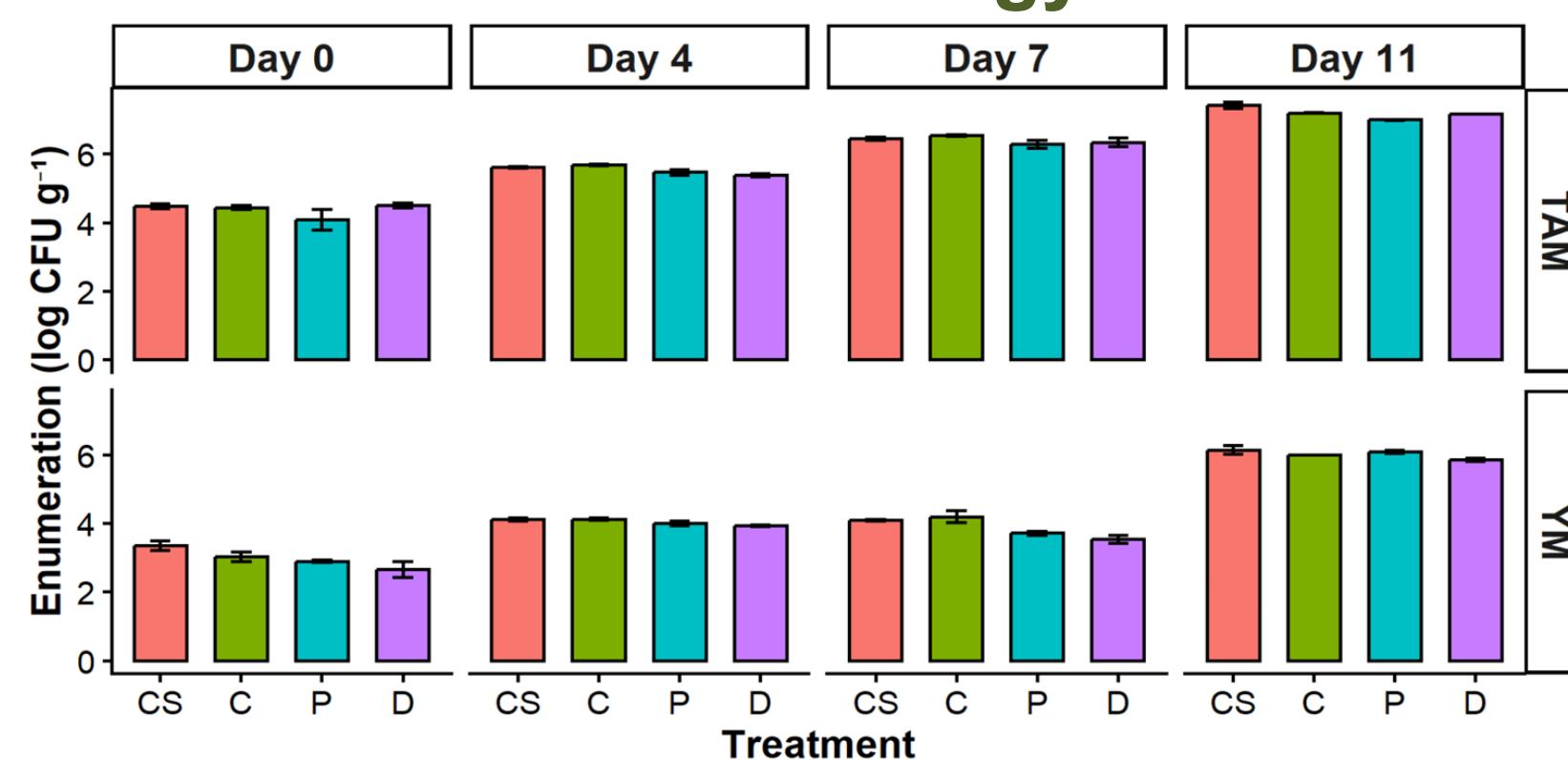
Antioxidants



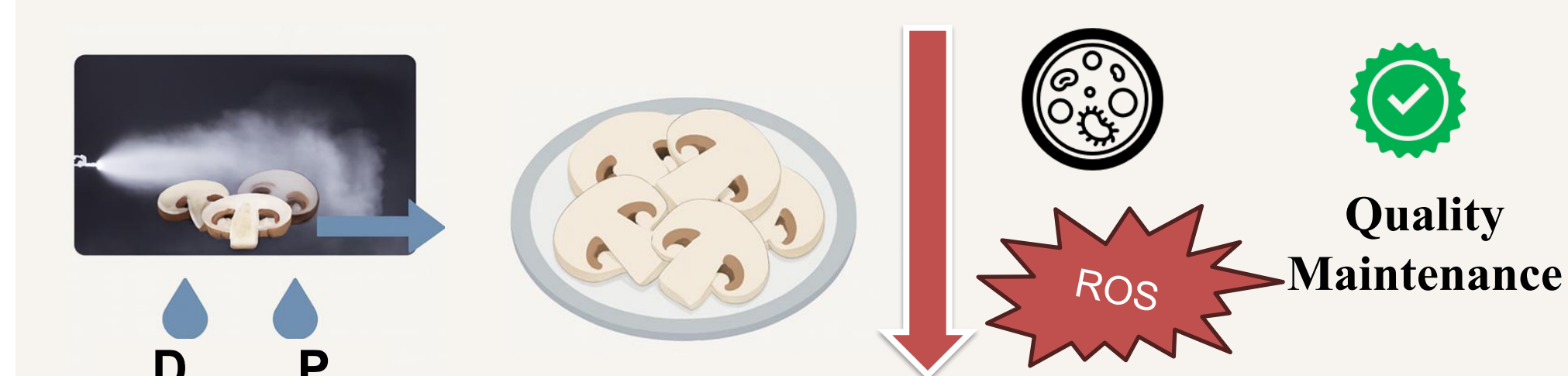
KEY FINDINGS

- Weight loss was **significantly higher** in P and C ($p < 0.05$).
- No significant differences** among treatments for firmness, color, or overall appearance across storage ($p > 0.05$).
- P showed the highest pH** at the end of storage.
- D maintained the highest** total phenolics and antioxidant capacity during storage, except at day 0, when P showed the **greatest** values ($p < 0.05$).
- D and P produced **modest but significant reductions** in TAM, and YM compared with CS ($p < 0.05$).

Microbiology



CONCLUSION AND FUTURE WORK



Future work should optimize dose and duty cycle to balance.

REFERENCES

- Cliffe-Byrnes, V., & O'Beirne, D. (2008). Effects of washing treatment on microbial and sensory quality of modified atmosphere (MA) packaged fresh sliced mushroom (*Agaricus bisporus*). *Postharvest Biology and Technology*, 48(2), 283–294. <https://doi.org/10.1016/J.POSTHARVBIO.2007.10.012>
- Wang, J., Zhang, Y., Yu, Y., Wu, Z., & Wang, H. (2021). Combination of ozone and ultrasonic-assisted aerosolization sanitizer as a sanitizing process to disinfect fresh-cut lettuce. *Ultrasonics Sonochemistry*, 76, 105622. <https://doi.org/10.1016/J.ULTSONCH.2021.105622>