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Systematic study of the quality and safety of chilled pork from wet markets, supermarkets, and online markets in China

Key words: Chilled pork, Quality, Safety, Online markets, Principal component analysis(PCA)

Research Content

Wet markets

57 samples

Supermarkets

33 samples

Chilled pork

143 samples

Color

(L*, a*, b* value) **pH TVB-N**

(total volatile basicnitrogen)

Element contents

(Ca, Fe, Zn, Mg, Cu, P, Pb, As, Hg, Cd, Cr)

online markets

53 samples

Veterinary drug residues

(tetracycline, oxytetracycline, chlortetracycline, clenbuterol, ractopamine, salbutamol, total sulfonamides)

PCA

(Principal component analysis)

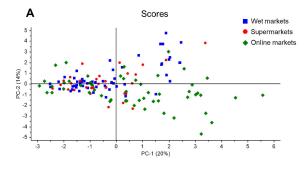
Research Conclusions

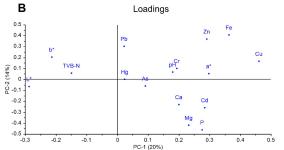
• All chilled pork samples were in line with standards in heavy metal element residues and veterinary drug residues, indicating that the chilled pork sold in Chinese markets was qualified and safe.

The chilled pork samples from online markets were fresher than those from wet markets and supermarkets based on the surface

redness (a* value).

• Huge differences existed in the quality and freshness of chilled pork samples from online markets according to PCA analysis. Therefore, it is necessary to establish an effective online market supervision system for chilled pork.





(A) Scores plot of PCA. (B) Loadings plot.