



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Research Doctorate in AGRI-FOOD
SCIENCES, TECHNOLOGIES and BIO-
TECHNOLOGIES
XXXIV Cycle

The effect of sous vide cooking technique on physicochemical properties of meat

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Co-supervisor: Dr. G. Minelli

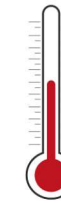
Ph D School Director: Prof. Dr. A. Ulrici

Ph.D Workshop- 4th December 2020





Temperature



60
80

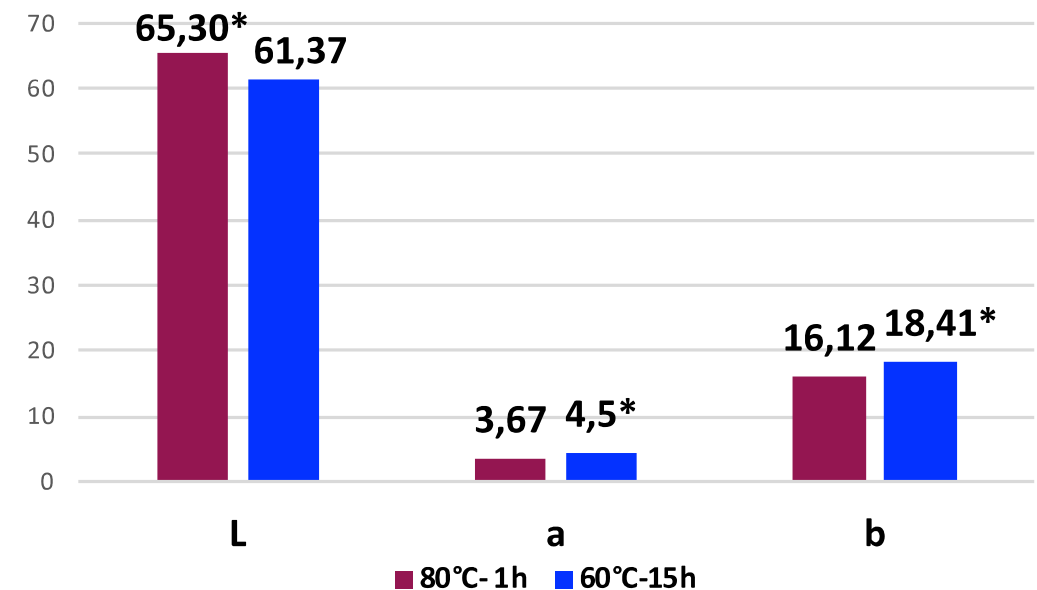
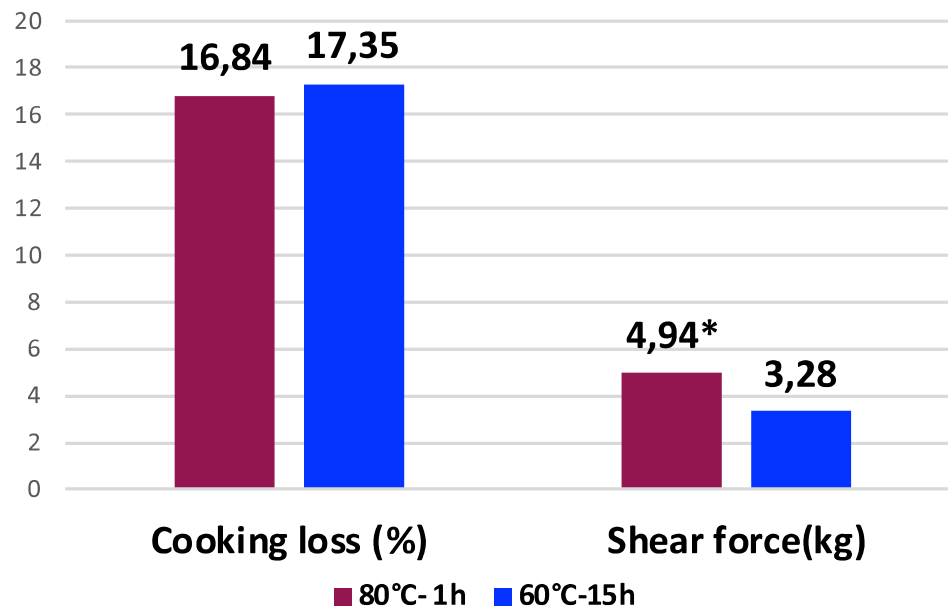
- Control diet
- Linseed
- Linseed+ Vit.E
- Linseed+ Natural antioxidants



Time



1 h
15 h



Temperature (°C)



60

70

80



Time (min)



60

90

120

150



Sous vide chicken fillets



Characterisation of eating quality and microbiological safety

Moisture
content

Cooking
loss

pH

Shelf Life

TBARS

Shear
force

Colour

4°C

21 days

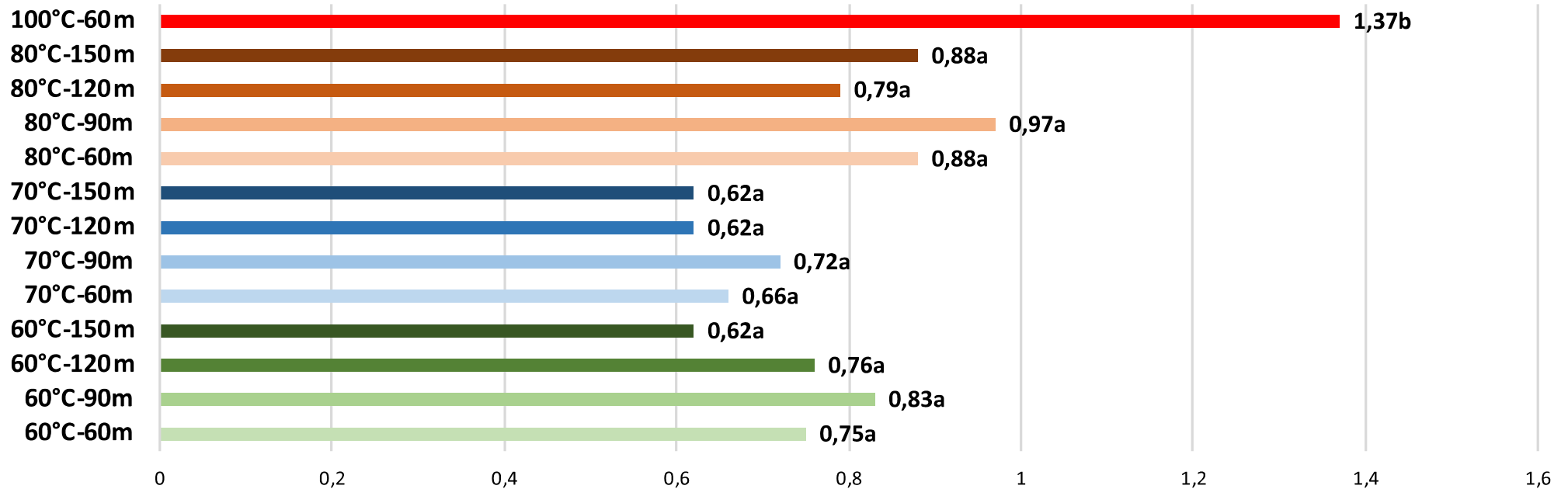


Total mesophilic aerobic bacteria

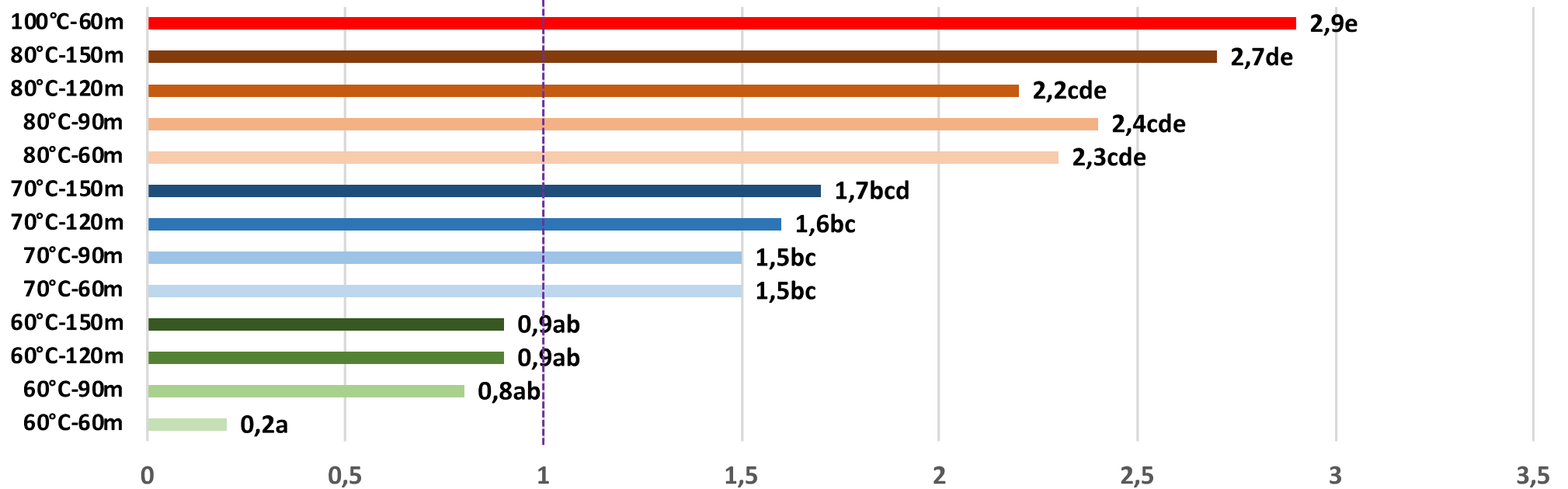
Total *Psychrotrophic* bacteria

Enterobacteriaceae

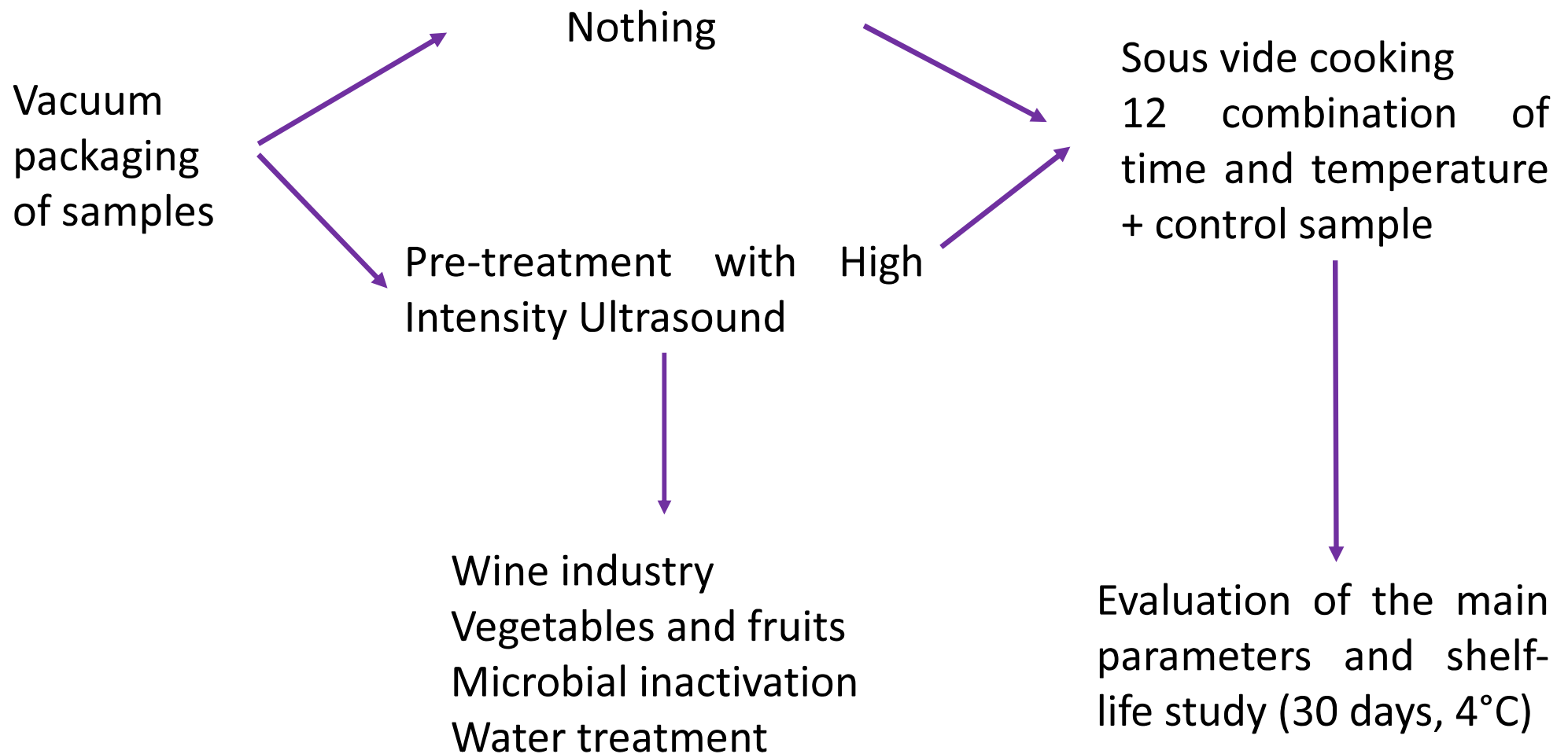
Shear force (kg)



TBARs (mg/kg)



Future prospective: combination of ultrasonication and sous vide on pork



*In short cooking you appreciate the perfection, in the
long one genius and harmony*
(Michel Bras)

Thank you for your attention

