

**EFFECT OF AGING IN TOTAL COLLAGEN, INSOLUBLE AND SOLUBILITY OF COLLAGEN
(MM. *Supraspinatus* and *Infraspinatus*) FROM COWS OF FOUR GENETIC GROUPS**

Toneto E. R. L.¹, Tulio R. R.², Nassu R. T.², Cruz G. M.², Feijó G. L. D.³, Felício P. E. de¹

¹ School of Food Engineering, University of Campinas - UNICAMP, Rua Monteiro Lobato 80, 13083-862 Campinas, São Paulo, Brazil, ² EMBRAPA Southeast Livestock, São Carlos, São Paulo, Brazil, ³ EMBRAPA Beef Cattle, Campo Grande, Mato Grosso do Sul, Brazil.

Aging beef is a process where the meat is kept under temperatures above the freezing point, ie, around 2°C for an extended period of storage, in order to improve the tenderness. The aim of this research was to analyze the effect of aging for 14 days in total and insoluble collagen content and collagen solubility of *Supraspinatus* and *Infraspinatus* muscles of crossbred cows ½ Simmental ½ Nelore, ½ Angus ½ Nelore, ½ Canchim ½ Nelore and Nelore breed around ten years old. Total collagen average values ranged from 5.01 to 5.14 g/100g (24h) and 5.04 to 5.14 g/100g (14 days) in the M. *Supraspinatus*. In M. *Infraspinatus* the total collagen average ranged from 5.93 to 6.09 g/100g (24h) and 5.95 to 6.11 g/100g (14 days). The insoluble collagen content ranged from 4.36 to 4.44 g/100g (24h) and 4.29 to 4.42 g/100g (14 days) in the M. *Supraspinatus* and ranged from 5.20 to 5.93 g/100g (24h) and from 5.02 to 5.18 g/100g (14 days) in M. *Infraspinatus*. The soluble collagen percentage ranged from 11.27 to 14.58% (24h) and from 12.40 to 16.25% (14 days) in M. *Supraspinatus* whereas the M. *Infraspinatus* the solubility of collagen ranged from 12.13 to 14.48% (24h) and from 13.10 to 16.58% (14 days). Aging for 14 days did not affect ($P>0.05$) total collagen content and insoluble collagen in the *Supraspinatus* and *Infraspinatus* muscles. However the collagen solubility was higher ($P<0.001$) in 14 days for the four genetic groups in both muscles studied.