

FARAH Day 2014 – abstract template

Please, use the template below for submitting your abstract for the FARAH Day 2014 (17 October 2014 – Amphi C). The deadline for submission of the abstract is 15 June 2014. The abstracts have to be sent to: FARAH.Day@ulg.ac.be

The abstract must not exceed 250 words (excluding the title and authors) and is preferentially required in English. The name of the presenting author has to be underlined.

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Authors have to **choose** if the submitted abstract is proposed as oral presentation or as poster:

Oral presentation

Poster

Impact of aging technique and muscle on oxidative stability of beef packaged under high-oxygen atmosphere

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Two common approaches for beef aging are wet-aging and carcass-aging. Wet-aging refers to meat aged in a sealed vacuum package at refrigerated temperatures, while carcass aged at controlled temperatures and humidity is defined as carcass-aging. Carcass-aging is an ancient process used nowadays to produce beef characterized by its superior quality. The meat conservability is influenced by its sensitivity to oxidative process which can vary from one muscle to another. The aim of this study was to compare the effect of aging technique (wet-aging vs. carcass-aging), muscle (*longissimus dorsi* vs. *rectus femoris*) and previous vacuum storage time on colour and lipid stability of beef packaged in high-oxygen atmosphere. After a seven-day wet- or carcass-aging step, *longissimus dorsi* and *rectus femoris* muscle cuts from 4 Belgian Blue cows were vacuum packaged and stored at $-1\text{ }^{\circ}\text{C}$ for up to 28 days. At different times, part of these samples was repackaged under modified atmosphere – 70 % O₂:30 % CO₂ –, and stored during 7 days at $+4\text{ }^{\circ}\text{C}$ in order to simulate retail conditions. The following parameters were evaluated: colour (CIE L*a*b*), metmyoglobin %, lipid oxidation (TBARS), antioxidant enzyme activities (catalase, glutathione peroxidase and superoxide dismutase), α -tocopherol and fat content. The sensitivity of high-oxygen atmosphere repacked meat cuts to oxidation was influenced by the aging technique (wet > carcass conditions), muscle (*rectus femoris* > *longissimus*

dorsi) and length of the vacuum storage. Oxidation stability could be associated with muscle catalase activity, and no association could be established with the α -tocopherol content.