Nutritional quality assessment of traditional sheep products from the northern Spain (Cantabrian area)

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Traditionally produced sheep meat, milk, and dairy products that are protected under quality labels are highly appreciated by the consumer. In the northern Spain, 'Idiazabal' cheese made using raw milk from Latxa breed, autochthonous dairy sheep, is a very good example. Usually, shepherds manage their flocks indoor during winter (early lactation) and outdoor (extensive grazing) during spring-summer time (late lactation). In mid spring some flocks are moved to mountain grasslands whereas other flocks remain in valley pastures close to farms. Milk production is almost exclusively destined to 'Idiazabal' cheese and, therefore, lambs are weaned, slaughtered and commercialized at an early age competing with other national and international sheep meats. Moreover, for shepherds, Latxa sucking lamb is a by-product even though there is a specific quality label for its commercialization. Under this situation, the aim of the PhD project is to contribute with scientific data to the sustainability of traditional sheep products in order to reduce the progressive abandonment of shepherding by assessing the nutritional quality of **i)** Latxa milk and 'Idiazabal' cheese produced at different altitudes (valley, mountain), and **ii)** lamb commercialized in northern Spain (survey). Milk, cheese and meat fatty acid (FA) analysis with special emphasis on biohydrogenation intermediates, like *trans*-18:1 and conjugated linoleic acid isomers, and other nutritionally interesting FAs as n-3 polyunsaturated and branched-chain FAs have been performed, together with other sensory (trained panel) and GC-MS-O determinations in meat.