



Changes in salivary protein composition of lambs supplemented with aerial parts and condensed tannins: extract from *Cistus ladanifer* L.—a preliminary study

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Received: 11 June 2018 / Accepted: 5 April 2019
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Abstract *Cistus ladanifer* L. is a shrub present in Mediterranean areas without major use, but which can be incorporated into ruminant diets, improving the digestive efficiency of dietary protein and product quality. The high levels of plant secondary metabolites, including condensed tannins, may be responsible for the beneficial properties of the plant, but can also reduce palatability. In this study, *C. ladanifer* was incorporated into lambs' diets, either as aerial parts or as a condensed tannin extract, reaching 1.25% and

2.5% of condensed tannins of dry matter. Saliva was collected and electrophoretic profiles of both whole saliva and saliva after in vitro incubation with *C. ladanifer* tannins were compared. Animals receiving the aerial parts of *C. ladanifer* decreased feed ingestion. Differences in salivary protein profiles were observed for animals fed with the higher levels of aerial parts of the plant (CL2.5 group). Most of the lambs' salivary proteins were present in the precipitate formed after tannin-saliva incubation, and one of the bands increased in CL2.5 group was present in high proportion in the precipitate. None of the protein bands stained pink with Coomassie Brilliant Blue, suggesting the absence, or low amounts, of proline-

Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s10457-019-00386-4>) contains supplementary material, which is available to authorized users.

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