**Introductory of a quality silage production using Pistachio byproducts for ruminants**

Pistachio byproducts can be considered as one of the most significant profitable byproducts in the agriculture sector which is created after the de-hulling of pistachio nuts after harvest. There are various amounts of soft exterior hull, branches, leaves, kernels, and bone shells in this by-product.

When used in the right amounts, pistachio by-products can be fed to livestock, which may have a positive impact on growth performance and nutrient digestibility in ruminants. This byproduct has a great deal of potential for use as affordable feed for ruminants. Due to its high moisture content, ensiling is the ideal method for long-term preservation of this by-product.

Addition of 1.5% molasses and a maximum of 0.5% urea can be used to improve the silage quality of pistachio by-products. The dry pistachio by-product is composed of dry matter, organic matter, crude protein, NDF, ADF, phenolic compounds and tannin. The average dry matter digestibility of the pistachio by-product is high, which suggests that it can be utilized as feed in the diets of dairy cows, beef, sheep, and goats due to its favorable effects on feed intake, digestibility, microbial protein synthesis, and animal performance.

Silage made from pistachio byproducts has a good quality and a relatively high protein content for ruminant animals. The total tract digestibility of crude protein, NDF, and ADF as well as rumen fermentation characteristics can be encouraged when this silage is used to ingested at varying quantities over a prolonged feeding period for ruminants.

Keywords:

Silage, Pistachio byproducts, Nutrient digestibility, Performance, Rumen fermentation