# Article information:

Effects of tannins supplementation to sheep diets on their performance, carcass parameters and meat fatty acid profile: A meta-analysis study-所有数据库  
<https://www.webofscience.com/wos/alldb/full-record/WOS:000720834100002>

# Article summary:

1. This study evaluated the effects of tannins supplementation to sheep diets on their performance, carcass parameters and meat fatty acid profile through meta-analysis.

2. Tannins should not be fed to lamb younger than 3 months of age due to their negative effect on carcass weight. Enteric methane emissions (CH4 g/kg DMI) reduced by 17.5 % with tannins supplementation.

3. Tannins supplementation increased concentrations of eicosapentaenoic acid (EPA C20:5 co-3; 26.63 %), docosapentaenoic (DPA C22:5 co-3; 12.08 %), docosahexaenoic (DHA C22:6 co-3; 10.59 %) and total omega-3 (14.01 %) in meat from sheep fed tannins compared to those fed control diet (diets with no tannins).

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it is based on a meta-analysis of 74 peer-reviewed publications with 183 treatment means, which provides a comprehensive overview of the effects of tannin supplementation to sheep diets on their performance, carcass parameters and meat fatty acid profile. The authors have also explored heterogeneity by performing meta-regression and subgroup analysis for genetic group, animal age, tannin supplementation period, experimental design, amount of condensed tannins and concentrate in diet, which further strengthens the reliability of the findings presented in the article.

However, there are some potential biases that need to be taken into consideration when interpreting the results presented in this article. Firstly, there may be publication bias as only published studies were included in the meta-analysis which may lead to overestimation or underestimation of certain effects depending on whether positive or negative results were more likely to be published or not published at all. Secondly, there may be selection bias as only studies that met certain criteria were included in the analysis which could lead to an inaccurate representation of the overall population studied if certain groups were excluded from the analysis due to these criteria being too restrictive or too lenient. Thirdly, there may be language bias as only studies written in English were included in this analysis which could lead to an incomplete picture if important studies written in other languages were excluded from this analysis due to language barriers. Finally, there may also be sampling bias as only studies conducted under specific conditions such as genetic group, animal age etc., were included in this analysis which could lead to an inaccurate representation if certain groups were excluded from this analysis due to these conditions being too restrictive or too lenient.

In conclusion, while this article is generally reliable and trustworthy due its comprehensive overview based on a meta-analysis of 74 peer reviewed publications with 183 treatment means and its exploration of heterogeneity through meta regression and subgroup analysis for various factors such as genetic group etc., potential biases such as publication bias, selection bias, language bias and sampling bias should also be taken into consideration when interpreting its results so that an accurate picture can be obtained regarding the effects of tannin supplementation on sheep diets performance, carcass parameters and meat fatty acid profile

# Topics for further research:

* Publication bias in meta-analysis
* Selection bias in meta-analysis
* Language bias in meta-analysis
* Sampling bias in meta-analysis
* Effects of tannin supplementation on sheep performance
* Effects of tannin supplementation on sheep carcass parameters and meat fatty acid profile

# Report location:

<https://www.fullpicture.app/item/9471ab2dd2738157b56abad08217d753>