

Phytochemicals in Egg yolk

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Summary

Phytochemicals are plant-derived compounds which have scientifically proven health benefits. They are transported to egg yolk through hen's feed. The amount and type of phytochemicals in egg yolk can be varied depending on the feed ingredients and processing can alter the bio-availability of these compounds.

Background



- To identify the effect of processing methods, on yolk carotenoids
- Prepare phytochemical profile of egg yolk in relation to the type of poultry feed

Methodology

- Develop methods to extract phytochemicals from egg yolk.
- Use of HPLC and LC/MS-MS to identify compounds of interest
- Develop standard calibration curves for quantification purposes



Proposed research outline

Expected results

We expect to:

- Identify the presence of phenolic compounds and alkylresorcinols in egg yolk and quantify them
- Investigate the relationship between poultry feed and phytochemical content in egg yolk

➢Find the effect of processing methods on loss of egg yolk phytochemicals

Benefits

Provide evidences on potential health promoting effects of egg yolk

Industry ^V

Public

Better knowledge on

Processing effect on

consumption

health benefits of egg

Phytochemicals in yolk

- Evidences to prove health benefits of egg yolk and to promote consumption
- Effect of feed composition on egg yolk phytochemicals

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