



Cyprus
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Faculty of Geotechnical
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Management

Bachelor's Thesis

**THE INCLUSION OF CAROB IN ANIMAL FEED: A
REVIEW**

Rebecca Hatzipapa

Limassol, June 2023

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Rebecca Hatzipapa

Supervisor

Associate Professor Ouranios Tzamaloukas

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ABSTRACT

The 'Black Gold' of Cyprus that is the common name for the Carob tree (*Ceratonia siliqua*) in Cyprus. Originating from today's Syria it spread because of the functionality of its fruits across the world and especially in the Mediterranean basin where it is a native part of the flora and flourishes when cultivated in the Mediterranean climate. The carob pods have been used by humans for feeding them and their animals for thousands of years. They are rich in fibres, minerals, amino acids, and polyphenols, the most prevalent of which are condensed tannins. According to FAOSTAT the biggest producer of carobs in the world is Portugal followed by Italy, Morocco, Greece, Turkey and of course the island of Cyprus. Despite its decline in recent years the production of carobs in Cyprus is still substantial. Literature states that carob pods can be added to the animal feed depending on species. Small ruminants have been provided with 24 to 56% carob pulp in their animal feed with or without the addition of polyethylene glycol (PEG) with various effects on performance, feed digestion, consumption and intake, welfare, and meat. In monogastric animals' carobs were added at small quantities at 10-15% for pigs, 2.5-10% for rabbits, and 3-7% for chickens. In general meat quality in the form of increased polysaturated fatty acids (PUFA) without extensive hinderance on the performance and welfare of the animals.

Keywords: carob pods, tannins, polyethylene glycol, meat quality, performance, digestion