The change of tannin content in faba bean seeds during long-term storage

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Tannins are among the several antinutritional factors present in beans and are located mainly in the seed hull. The tannin content of dry beans ranges from 0.0 to 2.0 %, depending on the bean species and color of the seed hull. The tannis content of faba bean seeds can be rather variable between species but also inside the same variety. Tannins reduce the protein digestibility, but they also help ruminants to improve their digestion and reduce the amount of gas in the intestines. In order to find out whether the content of tannins change over time, we analyzed the seeds of one faba bean variety ’Jõgeva’ from seven harvesting years (2023, 2022, 2021, 2020, 2019, 2015 and 2014). In all years the fertilizing, plant protection the field trials and also storage conditions of seeds were similar. Since tannins and protein content in seeds are closely related, we determined the protein contenttwice, in the harvest year, and in April 2024. Protein content in seeds did not cange over time. The color of the seed hull darkened more over the years. Long-term storage was accompnied by a significant decrease in the content of tannins.