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## e-POSTER ABSTRACTS BOOK



**Abstract No:39**

**INFLUENCE OF DIFFERENT HOUSEHOLD PROCESSES ON ANTINUTRITIONAL FACTORS AND IRON AND ZINC CONTENTS IN COMMON BEAN (*Phaseolus vulgaris* L.)**

Soaking beans and discarding the soaking water before cooking is unanimously recommended in respect to their nutritional quality. However, this may result in mineral loss. This study aims to evaluate the influence of cooking (common pan, pressure pot) in the presence or absence of the soaking water on the content of iron, zinc and antinutritional factors of black beans.

Beans were analyzed for Fe and Zn by ICP-MS; phytate by HPLC ion-pair chromatography; total polyphenols using Folin-Denis reagent; and condensed tannins using the vanillin assay.

Cooking in the soaking water did not result in a statistically significant reduction of phytate, polyphenols and condensed tannins, but their contents were reduced when discarding the soaking water. This reduction was statistically significant when using a pressure pot for cooking. A loss of Fe and Zn was neither observed when the beans were cooked in the soaking water nor when the soaking water was discarded.

Discarding the soaking water before cooking the beans resulted in lower contents of antinutritional factors, but did not affect the mineral content of the beans. This procedure might therefore have advantages in respect to Fe and Zn absorption compared to cooking in the soaking water.