

CHEMICAL COMPOSITION AND PROTEIN DEGRADABILITY OF WATERMELON SEEDS IN WESTERN SUDAN

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A study was conducted to estimate the chemical composition and crude protein degradability of whole seed, cake and pulp of watermelon seeds were grown in Kordofan state, western Sudan. Samples were collected from Kordofan crops market. Two fistulated steers were fed with green alfalfa during trial period. Approximate analysis was used to determine chemical composition. Whenever protein degradability was determined used in situ polyester bag technique. The individual sample was incubated in rumen for 2,4,8,16,24,36 and 48 hrs. Significant different (p 0.05) were observed in dry matter, crude protein, ether extract, crude fibre and ash of whole seed, cake and pulp. This study revealed that watermelon seed cake had lower dry matter degradability than whole seed and pulp respectively. Whereas, watermelon seed cake was higher (p 0.05) crude protein degradability following by pulp and whole seed in the first trial times but there was linear increase in protein disappearance of pulp with increase in period of incubation in rumen up to 48 hrs than cake and whole seed.

Key words: watermelon, protein, chemical composition, Kordofan, degradability