

## ANTINUTRITIONAL PROTEIN FACTORS IN RAW AND THERMICALLY TREATED LINSEED (*LINUM USITATISSIMUM*)

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Linseed (or flaxseed) is a cereal used as functional food, however its consumption without previous processing can lead to the ingestion of antinutritional protein factors. The objective of this work was to verify the presence of antinutritional protein factors (pancreatic and salivary  $\alpha$ -amylase inhibitors, trypsin and chymotrypsin inhibitors, and lectins) in linseed and to evaluate a method of thermal processing capable to eliminate these harmful compounds to the organism. Flours of raw seeds and roasted seeds in electric oven and conventional oven, vapor cooked and water bath cooked seeds (15', 30', 45' and 60'), were extracted in sodium tetraborate buffer 0.05M pH 7.5 and tested for antinutritional protein factors detection. The proteic extracts neither presented inhibitory activity to pancreatic and salivary  $\alpha$ -amylases nor to chymotrypsin. ABO Human erythrocyte agglutination was not detected. However, trypsin inhibitory activity reached 100%. Dry heating methods did not eliminate the inhibitory activity and vapor cooking 45' diminished only 34% this activity; water bath cooking was the only efficient method, which at 45' was capable to totally eliminate the trypsin inhibitors action.

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