

Oat Grain Functional Ingredient Characterization

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Abstract : Grains, including oats (*Avena sativa* L.), have been recognized functional foods, because provide beneficial effect on the health of the consumer and decrease the risk of various diseases. Oats are good source of soluble fibre, essential amino acids, unsaturated fatty acids, vitamins and minerals. Oat breeders have developed oat varieties and improved yielding ability potential of oat varieties. Therefore, the aim of investigation was to analyze the composition of perspective oat varieties and breeding lines grains grown in different conditions and evaluate functional properties. In the studied samples content of protein, starch, β - glucans, total dietetic fibre, composition of amino acids and vitamin E were determined. The results of analysis showed that protein content depending of varieties ranged 9.70 -17.30% total dietary fibre 13.66-30.17 g100g⁻¹, content of β -glucans 2.7-3.5 g100g⁻¹, amount of vitamin E (α -tocopherol) determined from 4 to 9.9 mg kg⁻¹. The sum of essential amino acids in oat grain samples were determined from 31.63 to 54.90 gkg⁻¹. Concluded that amino acids composition of husked and naked oats grown in organic or conventional conditions is close to optimal.

Keywords : dietetic fibre, amino acids, scores, nutrition value

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