

Valorization of the whole grains of *Triticum aestivum* L. and *Triticum vulgare* L. through the investigation of their biochemical composition and in vitro antioxidant, anti ...

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Description

Two locally grown wheat species named *Triticum aestivum* L. and *Triticum vulgare* L. were studied for their phytochemical contents and their biological activities. *T. vulgare* presented the highest amounts of total phenolic compounds and ascorbic acids while *T. aestivum* was found to be rich in flavonoids, flavonols, proanthocyanidins and *ortho*-diphenols. Eleven carotenoids were identified in *T. vulgare* where the most dominant compounds belongs to α -carotene and its derivatives while *T. aestivum* presented seven carotenoids. This later presented the highest DPPH radical scavenging activity and exhibited a strong reducing power in FRAP, phosphomolybdenum, hydrogen peroxide and reducing power assays. *T. vulgare* extract was found to be effective in metal chelating power and in scavenging nitric oxide radical. No significant differences in scavenging ABTS and hydroxyl radicals were noted between the two ...

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