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Vitamin E (α -tocopherol) Contents and Antimutagenicity potentials Talbina (*Hordeum vulgare* L.)

P-MIS-098

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Barley (*Hordeum vulgare* L.) belongs to the grass family, Poaceae (Gramineae). It is the fourth most important cereal crop after wheat, maize and rice and is among the top ten crop plants in the world. Talbina was used to be recommended for the sick and for one who is grieving over a dead person. Talbina is made by adding one or two tablespoon of barley flour (must be 100 percent wholegrain barley flour) to one-and-a-half cups of water and placed on low heat for 10-15 minutes (optional: add milk or yoghurt and sweeten with honey). The main objectives of this investigation were determine the α -tocopherol contents and antimutagenicity activity of Talbina (*Hordeum vulgare* L.). Our results showed that the total tocopherol content was in the range of 0.25 to 1.03 $\mu\text{mol/g}$ FW. Talbina extract was shown to have greater antimutagenic activity observed in the 2500 $\mu\text{g/plate}$ concentration *S. typhimurium* TA98. At all the doses antimutagenic response was significant at ($p < 0.01$) against both the strains with a percent mutagenicity decrease from 40 to 25 for TA98 followed by TA100 with percent antimutagenicity from 30 to 11. The results of the study concluded that Talbina is a better antimutagenic agent than vitamin E and combination of vitamins did not produce any synergistic activity.