Journal

J. Biol. Chem. Environ. Sci., 2017, Vol. 12(2): 1-18 www.acepsag.org

EFFECT OF SPROUTING USING SALINE WATER ON PHYTOCHEMICAL COMPOUNDS OF WHEAT GRAINS AND SPROUTING

Eslam M.R. Ibrahim[(1)],M.S.Masoud[(1)],U.A.El-Behairy[(2)]and M.M.F.Abdallah [(2)]

1-Regional Center for Food and Feed, Agricultural Research Center, Ministry of Agricultural, Giza, Egypt.
2-Horticulture Department, Faculty of Agriculture, Ain Shams University, Cairo, Egypt.

ABSTRACT

Whole wheat grains and one day old grain sprouts were used to study the effect of grain sprouting on phytochemical compounds in whole grains and sprouts flour vs. soft and coarse wheat flour. The results of phytochemical analysis showed that producing of whole wheat grain sprouts using saline water decreased and recorded the lowest values of phenolic and flavonoid compounds with opposite results in wheat sprouts using tap water for sprouting which recorded the highest values when compared with whole wheat grains flour.

The one day sprouts using tap water possesses had high antioxidants, phytochemical compounds content. Hence it is suggested to add one day dried whole wheat sprouts powder in wheat bakery flour in the daily diet to increase the nutritional value of products without changing dietary behavior and to reduce many diseases caused by antioxidant deficiency.

Key words: antioxidants; flavonoid. one day old wheat sprouts; phenols; phytochemical analysis; wheat grains.