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## Use of defense mechanisms to quantify resistance of wheat genotypes to drought

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Survival and productivity of crop plants exposed to environmental stresses are dependent on their ability to develop adaptive mechanisms to avoid tolerate stress. This study was following to find characters of resistant under drought stress, it was carried out to study the influence of water deficit in the leaves and roots of durum wheat plants were grown in hydroponic medium and were subjected to different water treatment. At the third leaf emergence stage two genotypes are compared with each other for their tolerance and their biochemical and physiological responses to water deficit. The following parameters are measured superoxide dismutase SOD: Activity, malondialdehyde MDA content, hydrogen peroxide H<sub>2</sub>O<sub>2</sub> level, the content of anthocyanins and chlorophyll. These parameters made difference between genotypes. Thus, this attributes can be used as screening tool for drought tolerance in wheat. They lend full support to results presented by researchers showing that wheat lines can differ consistently for their defensive mechanism. These results also emphasize the important role of secondary metabolites that are anthocyanin in the defense against oxidative stress caused by abiotic stress in the detoxification of reactive oxygen species (ROS) under stress conditions.

### Biography

Bousba Ratiba has received her degree in 2012 in plant physiology and biochemistry from Constantine University. She is life member of network durum wheat research and her current research interests include: abiotic stress, molecular marker, plant physiology and plant biotechnology. Presently she is assistant professor at Constantine University and published six papers. She is reviewer in many journals of plant crop research, genetics and physiology. She has done many handouts on mycorrhyses, symbiosis and QTL cartography and genetic association phenotype genotype in durum wheat.

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