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## Maternal factor involvement of tomato genotypes in the regulation of enzymes activity as a response to *Alternaria alternata* infection

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The peroxidases, as oxido-reducing enzymes and PR proteins, and esterases of hydrolytic enzymes are deeply involved in the defensive reactions of plants to various unfavorable factors. There were not found some data on the role of maternal factor in the response of these enzymes to fungal pathogens. By analyzing the activity of peroxidases and esterases in the seeds of parental forms - Gloria, Jubiliar, Atlasnâi and reciprocal hybrids F1 varieties, treated with *Alternaria alternata* culture, were found differences in patterns of the enzyme expression, based on genotype and variant. Thus, in F1 hybrid seeds Gloria x Jubiliar, in control, the peroxidases activity was much lower than the other analog. The activity of peroxidases in the F1 hybrid seeds Atlasnâi x Gloria was much higher than in F1 Gloria x Atlasnâi, both in control and with culture filtrate. Compared with peroxidases, esterases patterns of expression, depending on the genotype and variation, were more distinguished based on the presence and the intensity of the different isoforms. So, regulating of the genes expression which encodes peroxidases and esterases is a way to control the reaction of the tomatoes to *A. alternata* by the matern form.

### Biography

Grigorcea Sofia has completed PhD studies in October 2013 within the Institute of Genetics, Physiology and Plant Protection of the Academy of Sciences of Moldova. Now she is working as a trainee researcher. She has published 18 scientific papers in journals.

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## Optimization of osmotic dehydration of apples slices in date syrup using the response surface methodology

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Osmotic dehydration of apples slices in continuous kinetic was studied using dates syrup at different concentration (52.67 and 74), temperature (25.45 and 60°C), time (15.90 and 240 min). The response surface methodology was used to optimize effects of temperature, syrup concentration and immersion time in osmotic dehydration of apples slices in date syrup. A Composite Central Design was used with water loss (WL%) and solid gain (SG%) as responses. The models obtained for all the responses were significant ( $P < 0.05$ ). The optimal conditions for maximum water loss and solid gains (75.52 % and 17.92%) correspond to 60°C for a concentration of 74%(w/w) during 240 min.

### Biography

Hakima Acheheb has a Doctor status in agricultural sciences and is lecturer at the University of Blida, Algeria, and has always worked on the development of agricultural by-products, including the date syrup. He also has other work and publications international on extraction and characterization of oils oil seeds.

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