

PROJECT TITLE

Peach-almond Introgression Line Metabolites -3

CONSORTIUM

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SUMMARY OF THE REPORT

A sample of peach lines containing one (NILs or near-isogenic lines) or two or three (2IP) chromosome fragments of known size of almond were submitted to metabolomics analysis, the samples were prepared by extracting the fruit mesocarp to study their key metabolites and enzymes and to detect any variations that could be associated with the presence of the almond fragments. These individuals were reprocessed in the HiTMe platform of Bordeaux in 2018, 2019 and 2021 for metabolites: mainly sugars, organic acids and enzyme activities.

The results were then analyzed by principal component analysis (PCA) and R (ANOVA, boxplots and correlation matrix) to study the variation in the population, to identify correlation between the variables (metabolites and enzymes). Some promising associations, particularly of sugars (sucrose, fructose and sorbitol) have been detected.