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Oral Communication Abstract – 6.02

GENETIC DIVERSITY AND USE OF STONE FRUIT TREE WILD RELATIVES FOR A MORE SUSTAINABLE FRUIT PRODUCTION

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stone fruit tree, Prunus, genomics, adaptation

Since their domestication 2,000 to 3,000 years ago in Central Asia, stone fruit trees such as apricot and almond have adapted to diverse and varied environments, from the Middle East to the Caucasus to the Mediterranean rim in the West. Despite their similar characteristics, crop species and their wild relatives originating from Central Asia have undergone different paths of evolutionary adaptation. Life cycle, fruit quality, and disease resistance are all traits associated with genes affected by human selection of these trees but also with genes associated with its local adaptation. Knowing more about the genetic determinants involved in the adaptation process in those perennial species should contribute significantly to the selection of fruit trees in a context of climate change and changes in agricultural practices (agroecology, reduction of inputs, diversification and innovation for niche markets, etc.).