



PHD PROGRAM OF BMEL

MoroccOil: Development of analytical methods in terms of origin, processing and authenticity of different Moroccan edible oils and characterization of by-products of oil processing residues to ensure sales opportunities in the global market

country/countries	Morocco
funding agency	Federal Ministry of Food and Agriculture - BMEL
project management	Federal Office for Agriculture and Food - BLE
project coordinator	Max Rubner-Institute (MRI)
project partner(s)	Université Mohammed V-agdal, Rabat, Morocco
project budget	130.247,00 €
project duration	01.11.2019 – 31.01.2023
key words	targeted and non-targeted methods, argan oil, cactus-seed oil, dates oil, Ziziphus lotus, authenticity, oil quality
background	Moroccan agriculture plays a central role in the fight against increasing desertification. In particular, plants such as argan tree (<i>Argania spinosa</i>),

	<p>cactus pear (<i>Opuntia ficus-indica</i>), desert date palm (<i>Balanites aegyptiaca</i>), real date palm (<i>Phoenix dactyliferous</i>) or <i>Ziziphus lotus</i> are interesting, because on the one hand they can cope with the increasing problems of climate change with less and less rainfall resulting in erosion, desertification, deforested soils, and decrease of biodiversity. On the other hand, they can help to improve the nutritional situation, they result in a better income and safe employment, and improve the situation of women working in cooperatives.</p>
short description	<p>Within the project the influence of origin of the plants and storage and processing of the raw material on the composition of oil obtained from fruits of argan tree (<i>Argania spinosa</i>), cactus pear (<i>Opuntia ficus-indica</i>), desert date palm (<i>Balanites aegyptiaca</i>), real date palm (<i>Phoenix dactyliferous</i>) or <i>Ziziphus lotus</i> as potential oil sources for cooperatives should be investigated. In addition, the residues of oil processing should be investigated regarding their use as sources for bioactive phenolic compounds for the stabilization of food. Finally, methods should be developed to ensure the authenticity of the included oils on basis of the measurement of volatile or phenolic compounds as well as metabolites in general combined with statistical means. The results should motivate the rural population to grow robust plants that can be used for food production in order to improve the nutritional situation, the income and employment, the situation of the women and also fight against desertification by stabilizing the soil.</p>