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Présentera publiquement ses travaux en vue de l'obtention de
l'Habilitation Universitaire

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Salle de Réunion du Département de Biologie– Faculté des
Sciences de Tétouan

Devant le jury :



Pr. Abdenbi BEN DRISS	Faculté des Sciences de Tétouan, UAE	Président
Pr. Adnane LOUAJRI	Faculté des Sciences de Tétouan, UAE	Membre
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RESUME

Morocco is one of the main important areas in terms of phyto-resources in northern Africa owing to its geographical position, diverse geology, topography, climate, and ecoregion. This important plant genetic richness includes cultivated and wild plants such as fruit trees, cereals, and aromatic and medicinal plants. Such resources offer great potentials of valorization and contribution to national sustainable development. Our research directions are focused on three sections. The first one is devoted to phenological growth stages evaluation (using BBCH scale) and agro-climatic (chill and heat) requirements and their modeling using various statistical approaches (mainly Partial Least Squares Regression). Sustainability of Moroccan orchards of cultivated plants (fruit trees and cereals) in the context of global warming is important question in this first research section. In the second one, various aspects related to biomass production (plant growth, fruit load, root, stem, leaves, etc), kinetic, etc are investigated according to BBCH scale. The third section is dedicated to valorization of plant aerial parts (stem, leaves, and fruits) as well as by-products as sources of bioactive compounds for various applications (antioxidants, antimicrobial, biofertilizers, etc). These research sections involved 5 PhD students from our Lab and three national projects funded by national center for Scientific and Technical Research, National Agency of Medicinal and aromatic plants, Faculty of Science, Abdelmalek Essaadi University, Tetouan. Interesting results were obtained in three research sections. Reproductive and vegetative phenology was described and agro-climatic requirements were determined in some fruit trees (mainly almond tree and olive tree). Biomass (fruit, grains, etc) production and quality (physicochemical characteristics) showed important variations among different studied ecotypes/cultivars with important potentialities of valorization with regard to antioxidant and antimicrobial activity. Likewise, some by-products and waste left after postharvest and fruit processing such as olive mill wastewater was

found to have a potential of valorization as bio-fertilizer as demonstrated by preliminary results in some cereals (durum wheat and barley).

Keywords: Agro-resources, aromatic and medicinal plants, phenology, BBCH scale, agro-climatic requirements, biomass production, valorization, Multivariate statistical approaches