Theme: **6 - Forest management considering biodiversity conservation**
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The selection of Eucalyptus with a melliferous vacation in humid and arid environments

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Keywords

Eucalyptus sp.

Melliferous

Flowering

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NWFP

Aromatic & Medicinal Plants

Scale

National

Context

The present study provides a calendar of the flowering of Eucalyptus species present in two different arboretums: 20 species in humid bioclimate and 16 species in semi-arid bioclimate. Common species, widely represented in reforestation in north-western Tunisia such as *Eucalyptus camaldulensis* and *Eucalyptus gomphocephala,* are highly valued for their nutritional value and overexploited by the local beekeepers. However, a large number of species of a eucalyptus still unknown could be valued and used in a beekeeping objective.

Objective

This work aims to promote beekeeping activity in rural areas where eucalyptus can play a leading role as nectar species. This objective necessarily involves the identification of eucalyptus species of melliferous interest and the selection of the most successful species in terms of abundance of flowering, its duration, and its spreading throughout the year.

Results

Among 120 Eucalyptus species tested in the arboretums and experimental plots, many can be employed to promote beekeeping activities. The results show that flowering extends over several months of the year and varies according to species from 3 to 12 months. In humid bioclimate, 6 out of 20 are distinguished by the duration of their flowering months. In semi-arid bioclimate: 11 of the 16 species tested, have 6 months or more of flowering during the same year. However, the intensity of flowering is not identical for all flower species. Species such as Eu bicolor, Eu gillii, Eu clodacalyx, Eu. Incressata, Eu salubris, Eu leucoxylon, Eu loxophleba, combining well survival, good growth, and abundant flowering.

Recommendations

On the basis of the results obtained, it is recommended to create the greatest possible number of Eucalyptus plantations mixed and varied species either in the form of forest plantations on relatively large areas (10ha and more) in the forest domain either in the form of bouquets of trees or in alignment with agricultural land in order to ensure sufficient food and the most spread over the year.

Impacts and weaknesses

Beekeeping faces many problems including the lack of honey plants and the shortness of their flowering periods, especially in winter and summer. Therefore research and diversification of melliferous species can contribute effectively to the development of the beekeeping sector at regional and national levels. Beekeeping improves the livelihood of the rural population and improves their incomes.

Future developments

An effort should be made by tuning research with forest technicians to disseminate research findings among rural populations and small farmers on the selection of eucalyptus species for honey production, its multiplication, and distribution. The association and involvement of the Groupement of agricultural development in this effort will further strengthen the results and will be an asset to ensure the success of such action.

Bioclimate	Species	Months												NMF
		J	F	M	A	M	J	J	A	S	O	N	D	
Humid / Sub-humid	*Eu.accedens*													10
	Eu.alba													7
	Eu.astringens													4
	Eu.botryoides													2
	Eu.camaldulensis													9
	Eu.cinerea													6
	Eu.citriodora													5
	Eu.diversicolor													3
	Eu.gonphocephala													3
	Eu.maculata													4
	Eu.maideni													3
	Eu.paniculata													5
	Eu.pellites													2
	Eu.punctata													5
	Eu.robusta													4
	Eu.rudis													5
	Eu.saligna													4
	Eu.sideroxylon													7
	Eu.tereticornis													6
	Eu.viminalis													4
Semi-arid	*Eu. bicolor*													9
	Eu. brevifolia													8
	Eu. cladocalyx													3
	Eu. dumosa													4
	Eu. gilii													10
	Eu. incrassata													6
	Eu. intertexta													6
	Eu. leucoxylon													8
	Eu. loxophleba													5
	Eu. oleosa													10
	Eu. patularis													4
	Eu. salubris													10
	Eu. striatycalyx													3
	Eu. stricklandii													9
	Eu. torquata													3
	Eu. transcontinentales													4

Minor Medium Major

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About INCREDIBLE Project

INCREDIBLE project aims to show how Non-Wood Forest Products (NWFP) can play an important role in supporting sustainable forest management and rural development, by creating networks to share and exchange knowledge and expertise. 'Innovation Networks of Cork, Resins and Edibles in the Mediterranean basin' (INCREDIBLE) promotes cross-sectoral collaboration and innovation to highlight the value and potential of NWFPs in the region.

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