



## 2.10 Research projects 2022 plan

Project	PI	Abstract
<p>Research of wild plant species to replant emirates' wild forests</p> 	James Salome	<p>The goals of this research are :</p> <ul style="list-style-type: none"> <li>- Study of the genetic flow of wild plant species from an arid climate, referring to bees as dispersers of heterogeneity;</li> <li>- Study of specific parameters on the reproductive biology of wild plants, emphasizing the quality and quantity of floral resources as food sources for pollinators.</li> <li>- Analysis of the conversion of floral resources (nectar/polen) into honey/bee food.</li> <li>- Development of non-wood products (natural medicine/food) for the sustainable use of implanted forests with wild species.</li> <li>- Determination of the main wild plant species that can be used as target species for seed collection, seedling production, and use in plantations to create wild forests.</li> <li>- Development and improvement of technology for implantation of forests with wild species.</li> <li>- An economic evaluation of the implantation of wild forests concerning their sustainable use with non-wood products and environmental services.</li> <li>- Ex situ conservation of the main species of wild plants with environmental and economic utility.</li> </ul>



## 2.11 Research projects 2022 plan

Project	PI	Abstract
<p>Bee genetics and cross breeding for harsh climate</p> 	James Salome	<p>The UAE imports over 95% of the honeybees required to produce honey - which represents about 500,000 bee colonies every year . These bees are not equipped to survive UAE's harsh climate. Indeed, the local summer, where temperatures often reach 50°C, combined with pests, parasites, shortage of foraging plants and poor hive management generally leads heavy beehive losses every summer.</p> <p>This project aims to produce bee with higher resilience to local environment.</p> <p>Produce genetically improved bees that make more money due to increased production and lower costs of disease management.</p> <p>Development of technological improvements in infrastructure and management to increase the survival rate of bees in off season.</p> <p>Conservation and use of germplasm of bee species of local breeds for studies, production and promote genetic flow between wild plants with floral visitation.</p> <p>Strong beekeeping industry due to improvements in profitability.</p>