



Belacolmea: cosmetics to diversify and make beekeeping more profitable

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BACKGROUND AND PROBLEM DESCRIPTION

European beekeeping overview



Beekeeping is an activity deeply rooted in the tradition of the Galician Community (NW Spain), of great social importance, currently going through a difficult situation due to several problems. The recent introduction of the invasive species *Vespa velutina*, the difficulty in controlling the rate of varroa infestation and the impact of climate change, among other factors, are causing serious economic losses and an uncertain future. In this context, the Agrupación Apícola de Galicia, the main beekeeping association in the region, aims to comprehensively develop the beekeeping sector in Galicia by conducting analyses, studies, and research that address existing challenges, with the goal of revitalizing and modernizing local beekeeping. Most beekeepers depend economically on the sale of honey and therefore product diversification can be an interesting alternative to increase family income.



Some beekeepers were producing home-made cosmetics with high production costs and a lack of quality assurance. For this reason, the Agrupación apícola de Galicia decided to develop a cosmetic line serving as brand that could provide beekeepers with quality cosmetics helping them to increase their incomes.



Agrupación Apícola de Galicia head office



<https://apicoladegalia.com/>

METHODOLOGY

Different studies were carried out in collaboration with the University of Vigo. First the Department of Vegetal Biology and Soil Sciences participates to select which type of Galician Honey was most suitable for cosmetics.



Samples used in the selection

The Department of Applied Physics designed the protocol and tested the creams with 60 volunteers. The variations in the degree of hydration and sebum, as well as the tightening power of the facial cream and the soothing power of a foot salve were studied. Skin bio metrology techniques were used, for the determinations of the hydration degree, amount of sebum and skin elasticity, on the previously selected volunteers. In addition, surveys were carried out for sensory and subjective evaluation.



Volunteers testing the cosmetics elaborated within this activity

RESULTS AND PRACTICAL IMPLICATIONS

Cosmetics was introduced on the market after two years of study, research and development, in compliance with the requirements and all the necessary guarantees for consumers. A unique and exclusive line in the country was born using Galician honey (PGI Miel de Galicia) as the main ingredient, together other products from the hive such as wax, propolis and royal jelly. The line has nine different products. The initiative was funded by ADERCOU..



1. Natural soap with honey and propolis
2. Face cream
3. Body cream
4. Hand cream
5. "Apireparador", balsam for damaged skin
6. Skin blisters and abrasions
7. Lips balsam
8. Feet balsam
9. "Apidor", cream for local pain relief.



Studies have shown these cosmetics have very good results for their intended purposes, including skin moisturising and in the case of the facial creams the anti-ageing effect. The product line is on sale and the packaging associates the products with Galician beekeeping and Galician Honey.

Beekeeping diversification into cosmetics not only represents an economic opportunity, but also a way to innovate, sustain beekeeping, and respond to new market trends. Furthermore, it promotes the responsible and comprehensive use of hive resources, fostering a more holistic and sustainable approach to beekeeping. Due to this, this project received several awards: **Galicia Rural Development Awards XIII edition, agricultural and livestock sector category** and **Red PAC**.

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BACKGROUND: Beekeeping in Galicia (NW Spain) is currently undergoing a difficult situation due to several issues. The recent introduction of the invasive species *Vespa velutina*, the difficulty to control the varroa infestation rate and the impact of climate change, among other factors, are leading to severe economic losses and an uncertain future. Most apiaries depend economically on the sale of honey and therefore, the diversification of products can be an interesting alternative to increase family incomes.

DESCRIPTION OF THE PROBLEM: Some beekeepers were producing home-made cosmetics with high production costs and a lack of quality assurance. For this reason, the Agrupación apícola de Galicia (The main beekeeping Association in the area) decided to develop a cosmetic line serving as brand that could provide beekeepers with quality cosmetics helping them to increase their incomes.

METHODOLOGY: Different master formulas were created based on products from the beehive (honey from the PGI Miel de Galicia and propolis) and essential oils, thus creating a totally natural beekeeping cosmetic. These formulas were tested on volunteers to check their results and ensure that each product launched on the market is consistent, safe and effective.

RESULTS AND CONCLUSION: Nine different products have been launched on the market: natural soap with honey and propolis, face cream, body and hand cream, "apireparador" (a balsam for damaged skin, skin blisters and abrasions, different balsams (lips, feet) and a cream for local pain relief. Studies have shown that these cosmetics have very good results for their intended purposes, including skin moisturising and in the case of the facial creams the anti-ageing effect. The product line is on sale and the packaging associates the products with Galician beekeeping and Galician Honey. A new line of cosmetics has been created based on bee products.

CONCLUSION AND PRACTICAL IMPLICATIONS FOR BEEKEEPERS. This is an innovative project helping beekeepers to improve their income so that they can live in the countryside and from the countryside, settling the population in rural areas.