

A study on the preparation of polymer compounds for a plastic comb foundation

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A current situation on comb foundation suggested the use necessity of semipermanent plastic foundations. Polyolefin compounding compositions were selected for manufacturing a plastic comb foundation with honeybee affinity and high rate of beehive sculpture. By replacing existing beeswax grasses with recyclable and durable plastic materials, it not only prevents environmental pollution, but also integrates beeswax for honey and royal jelly production. The purpose of this study is to fabricate the reusable comb structure by using Polyolefin materials like PP (polypropylene) or HDPE (high density polyethylene) resins. To increase further the sculpturing rate of honey, an effective method was proposed for wax-coating on the molded foundation. The comb foundation obtained from the mixed compounds was regenerable and durable. It was able to not only prevent environmental pollution but also contribute greatly to practicality and economical improvement of the environment beekeeping industry.