Comparative Study Between Bellis sylvestris, Artemisia dracunculus and Lantana trifolia in the Ability to Attract Apis mellifera

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After major nature disturbances such as hurricanes, flora is damaged, as a consequence honey bees too. The objective of this research was to identify which wild plants are preferred by honey bees and may serve as a support system after a major nature disturbance. The aim was to determine which plant, between wild daisy (Bellis sylvestris), verbena (Lantana trifolia), or tarragon (Artemisia dracunculus), will help accelerate the process of recovery and population maintenance of honey bees (Apis mellifera) based on the number of visits of bees to the plants. It was expected that wild daisy would attract the largest number of bees, based on pollination syndrome (UCONN, 2017), followed by the tarragon and verbena. The study, which took place in Puerto Rico, included an experimental group (different adult plants), and a control group (sugar water and pollen substitute). Observations were made for seven days and the visits were counted for five minutes every half hour for a period of twelve hours. The results showed that the wild daisy had the highest number of visits (143) followed by the tarragon (37), sugar water (20), verbena (17) and pollen substitute (0). An ANOVA and Tukey test confirmed that the wild daisy was significantly higher than the other food sources. The results of this research can be used for the development of effective alternatives to promote favorable growth conditions for these important pollinators. In the future we want to determine, biochemically, why honey bees are so attracted to wild daisy.

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