

# ANTIOXIDANT CAPACITY OF PLANT MACERATES OF HONEY INFUSED APPLE CIDER VINEGAR WITH APPLICATION IN WEIGHT LOST MANAGEMENT

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## Abstract

The growing prevalence of obesity and chronic diseases has heightened interest in the potential health benefits of natural antioxidants. This study aims to explore the antioxidant capacities of various recipes of honey-infused apple cider vinegar macerates containing plant extracts. Eight different recipes were formulated using apple cider vinegar, acacia honey, and a variety of plant extracts including ginger, green tea, dandelion root, and chicory root. The mixtures were allowed to macerate for 24 and 48 hours at room temperature (21°C), followed by centrifugation and antioxidant capacity analysis using a specialized ACW kit and a PHOTOCHEM device. The antioxidant capacities varied significantly among the eight recipes, ranging from  $0.25 \pm 0.001$  to  $1.88 \pm 0.008$   $\mu\text{g/g}$  (Equivalent Vit C). Generally, an increase in antioxidant capacity was observed from 24 to 48 hours of maceration. Recipes with multiple plant extracts showed remarkably higher antioxidant capacities, indicating potential synergistic effects. The study reveals substantial variations in antioxidant capacities among different recipes, influenced by both the type and combination of plant extracts used, as well as maceration time.

**Key words:** apple cider vinegar, antioxidant capacity, honey, plant macerates