Antimicrobial Properties of Honey from Different Regions in North America

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This study explored the antimicrobial properties found in honey and to compare honeys from two different regions in North America. The research was performed in hopes to find the honey with the most notable effect against harmful bacteria and to compare the different regions. The honeys tested were from Northeastern United States and Southeastern United States. More specifically Maine(Northeast) and Louisiana(Southeast). Nutrient agar was prepared and then poured into empty petri dishes, then set aside to cool and harden. E.coli strain B. was cultivated then spread onto the prepared agar plates while using aseptic techniques. Two paper discs were placed in each plate with the cultivated E.coli strain B. An aliquot of honey was then placed on each filter paper disc. The plates were cultivated for 12 hours, then the zone of inhibition was measured. The data was recorded and a statistical analysis was performed using EXCEL. The honeys from Louisiana showed a larger zone of inhibition than the honeys from Maine. A T-Test was performed and values less than 0.05 were significantly different. Louisiana honey showed a significantly greater zone of inhibition when compared to the honeys from Maine. These results suggest that the honeys produced in warmer climates yield greater antimicrobial effects than its counterpart found in colder climates. This can be used practically when a minor sickness overcomes you, or it could be used topographically.

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