

CORRELATION BETWEEN ANTIBACTERIAL AND ANTIOXIDANT ACTIVITY IN OAK HONEYDEW AND ACACIA (*ROBINIA PSEUDOACACIA L.*), BEE HONEYS

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ABSTRACT: In the study were presented data for comparisons between antibacterial (agar well diffusion method by Allen et al., 1991), and antioxidant activity (Al-Mamary et al., 2002), in Bulgarian oak honeydew (n=20), and acacia (*Robinia pseudoacacia L.*), bee honeys (n=10). The results showed that the antibacterial and antioxidant activities of honeydew honeys were the highest, while the acacia honeys had the lowest activities. Were found a weak positive close to linear correlation between antibacterial and antioxidant activity ($r=0.4784$, $R^2=0.2289$, $p<0.05$). More simultaneously investigations into the mode of action of the antibacterial and antioxidant activities of different types of honeys are warranted, as these may lead to new sources of antibacterial therapeutics.

Keywords: antibacterial activity, oak honeydew, blossom, honey.

CONCLUSIONS

If summarize data from our experiments we could conclude that some oak honeydew honeys could have potential antibacterial effect against resistant for antibiotics strains of microorganisms. In this reason more simultaneously investigations into the mode of action of the antibacterial and antioxidant activities of some types of honeys, especially oak honeydew honeys are warranted, as these may lead to new sources of antibacterial therapeutics for resistant microorganisms.

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