

Antioxidant Properties of Melipona Honey Bees

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DESCRIPTION

Honey bee plays an important role in course of pollination in plants and that helps in enriching ecosystem. From recent studies Bee population is decreasing in worldwide gradually. Bee's helps to detect outcomes regarding their behaviour and also disadvantages that caused by honey bees. This helps to understand about bees and also uses of bee as pollinator. Amazon melipona honey is produced by amazon stingless bees. Amazon stingless bee is mostly present in hinterland of Peru. These stingless bees don't have stingers and they are very small in size when compared to other bees.

Melipona honey Bee belongs to genus classification of stingless bees. They are mostly present in the northern part of Mexico and Argentina. There is also found in bee plant which is present in Cuxtal Ecological Reserve where bees are studied and examined. Amazon melipona honey is very light colour and they have odour of flower fragrance and the gives a sweet flavour. The natives Melipona honey Bee is Peru village which is also called chazuta. They use this honey to make drinks. The melipona honey used in many purposes like in fields of medicine also use in treating respiratory diseases and also for curing visionary problems. Due to usage of pesticides it leading to disappearance of honey bees. So the project have been launched the objective to promote apiculture to protect the bees and also provide importance of bee in pollinating crops which help in biodiversity and enhance ecosystem. Stingless honey bee used as an Antioxidant in wound healing. The Antioxidants produced by bee are divided into two types they are enzymatic and non-enzymatic antioxidants. Enzymatic antioxidants changes a free radical into persistent molecule which very less harmful to body. Antioxidants play an important role as a protector to the structure of cells by neutralizing the reactive oxygen. It also helps in removing the damaged chain reaction from the body. These antioxidants are divided into several classes and some of them are catalase, glutathione, ascorbate peroxidases, reductase, and peroxidase. The non-enzymatic antioxidants are can destroy the chain reaction by obstructing the free radicles of reactive oxygen species. Some of the non-enzymatic antioxidants are phenolic compounds, carotenoids, ascorbic acids and tocopherol. The

Antioxidant Properties of Stingless honey bee. Honey plays a role in healing wounds by having antioxidant activities. The antioxidant has capacity to heal the harmful effects on the wound which is caused by the oxidative pressure. Some of the research says that antioxidant content is higher in melipona honey. The researcher had revealed that free phenolic group present in the melipona honey is protocatechuic acid and hydroxyphenylacetic acid. Protocatechuic acid helps in improving cell escalation in process of wound healing whereas Hydroxyphenylacetic acids help to collect the reactive oxygen and the nitrogen species. The stingless bees also produce another compound called as cerumen which has the antioxidant properties.

CONCLUSION

By using the lipoxygenase compound *in vitro* the structure of the polar extract has decreases its capacity in catabolism of linoleic acid which shows the antioxidant effect can resist the lipid peroxidation and protect them from coherence of the cell membrane. The high antioxidant content in stingless bee leads to induce importance in the application of this honey in wound healing process. The stingless bee honey may provide a many therapeutic activities and also can give favorable output. The application of honey in the pharmaceutical field is for treating the diseases and also helps to heal many diseases in coming future.

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CONFLICT OF INTEREST

The authors declare there is no conflict of interest.

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