

# **Plectra Gold: Herbal Honey Formulation as an Effective Relief for Common Respiratory Diseases such as Flu, Cough and Sore Throat**

Ramachandran, Abhirami (School: Sekolah Menengah Kebangsaan Jalan Empat)

Dalvendar Singh, Mahisha Kaur (School: Sekolah Menengah Kebangsaan Jalan Empat)

Saminatha Kumaran, Kanimolee (School: Sekolah Menengah Kebangsaan Jalan Empat)

Plectra Gold is a herbal honey formulation that acts as an effective remedy for common respiratory problems such as flu, cough and sore throat. The main component of Plectra Gold is raw Tualang honey. Plectra gold is prepared using a 3:1:1:1 ratio; 300ml of honey, 100ml Mexican mint (*Plectranthus amboinicus*) extract, 100ml ginger (*Zingiber officinale*) extract and 100 ml lemon (*Citrus limon* (L) Osbeck) juice. All the components are double boiled for approximately 120 minutes until it reaches the consistency of honey. The processed mixture is then cooled, packed and sent for various lab tests to ascertain the quality and the safety of the product as it is taken orally. The antioxidant and total phenolic compound (TPC) content test shows that it is high in antioxidant (72.96%) and TPC content (32.89). This indicates that it is capable of protecting us from free radicals. The microbiology test was negative as no harmful microorganisms such as *Salmonella*, *Coliform*, *Escherichia coli*, yeast and mold is detected. There were no trace of heavy metals, such as arsenic, mercury and lead. All these tests have proven that Plectra Gold is safe to be consumed. Apart from that, the nutritional values the test shows that it contains high amount of energy and carbohydrate. The effectiveness of the product was determined using a survey conducted on 30 respondents (13 to 60 years old). The result shows that out of 30, 26 liked the taste, aroma and agreed that it helped to reduce their phlegm, cough, and sore throat when taken for 3 consecutive days. Respondents were also keen to purchase Plectra Gold.