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Pollen Spectrum of Elazig/Turkiye Honey: A Study on Floral Diversity and Botanical Authentication

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Melissopalynology, the study of pollen identification present in honey, is an essential tool for determining the botanical and geographical origin of honey. Elazig, located in eastern Turkiye, hosts a rich floral diversity, contributing to the unique characteristics of its honey. This study aimed to analyze the pollen composition of honey samples obtained from Sivrice province of Elazig to assess their floral sources and botanical authenticity.

A total of 17 honey samples were collected from local beekeepers during the 2023 harvest. Pollen identification was conducted using standard melissopalynological protocol without acetolysis. The frequency classes of pollen types were determined, and the dominant and secondary floral sources were classified. Results indicated that the most prevalent pollen types belonged to Astragalus sp., Trifolium sp. and Xeranthemum sp., followed by Rosaceae, Lathyrus sp., Brassicaceae, Apiaceae, Paliurus spina-christi, Melilotus sp., Centaurea sp. and Pimpinella sp.. The presence of nectariferous plants such as Astragalus and Trifolium highlights the floral richness of the region and supports the classification of Elazıg honey as monofloral or multifloral.

The findings contribute to the characterization of Sivrice/Elazig honey, providing valuable insights for beekeepers, consumers, and quality control authorities. This study underscores the importance of regional honey authentication and promotes the recognition of Elazig honey in the global market.