LITHUANIAN UNIVERSITY OF HEALTH SCIENCES

International **Summer School** Practice

Study of Physicochemical Properties and Chemical Composition of Honey from Different Geographical Origins

Honey is a natural bee product with a complex composition that may vary depending on its geographical and botanical origin, environmental conditions and storage. These factors can influence the physicochemical properties and chemical composition of honey. The aim of this summer research project is to investigate and compare selected physicochemical properties and chemical characteristics of honey originating from Lithuania and other countries.

The study will include honey samples of different geographical origins. Where possible, samples of similar botanical origin will be selected to enable a more meaningful comparison. The practical research work will include the determination of moisture content, pH, electrical conductivity, colour characteristics, and ash content. In addition, volatile compound profiles of selected honey samples will be analysed using gas chromatography.

The obtained data will be statistically analysed to compare honey samples of different geographical origins and to evaluate relationships between the investigated physicochemical parameters and volatile compound profiles. This will allow differences and similarities among honey samples from different geographical origins to be identified and characterised.

During the project, students will gain hands-on experience in honey sample preparation, physicochemical measurements, chromatographic analysis, laboratory data management, statistical analysis, and interpretation of scientific results.