

**Goce Delcev University – Stip
Faculty of Agriculture**



**5th INTERNATIONAL MEETING
AGRISCIENCE & PRACTICE
(ASP 2026)**

BOOK OF ABSTRACTS

**16 APRIL 2026
Stip, Republic of North Macedonia**

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**5th INTERNATIONAL MEETING AGRISCIENCE & PRACTICE
ASP 2026**

**Organized by
FACULTY OF AGRICULTURE
GOCE DELCEV UNIVERSITY, STIP, REPUBLIC OF NORTH MACEDONIA
16 April 2026, Stip, Republic of North Macedonia**

The Faculty of Agriculture is organizing the 5th International Meeting *Agriscience & Practice (ASP 2026)*, providing participants with the opportunity to present and discuss original scientific and practical results in various fields of agriculture.

The 5th International Meeting *Agriscience & Practice (ASP 2026)* brings together agricultural stakeholders to share their knowledge, experience, and challenges. Its main goal is to connect research and fieldwork in the agricultural sector, both nationally and beyond, giving it an international dimension.

Over the past years, we have been fully committed to building exactly these kinds of bridges—bridges between science and practice, between institutions and producers, and between experience and innovation. Moreover, we strive to build bridges that transcend borders and connect us with the region and the world.

Scientific and applied presentations will be organized into the following sections:

1. Agricultural Economics
2. Animal Sciences
3. Plant Sciences
4. Food Science and Nutrition
5. Soil Science and Environment
6. Enology

Poster presentations will also be available. In addition, in response to the needs of the agricultural sector, panel discussions will be organized, where invited speakers and panelists will have the opportunity to share their experience with meeting participants.

Dear colleagues, partners, and friends, let us once again gather in one place, united by a common idea—to bring together agricultural science and practice in order to share information, knowledge, experiences, and solutions to overcome existing challenges. The main objective of this meeting is the successful establishment of continuous and meaningful communication and collaboration among scientific, research, and practical activities in the agricultural sector at the national, regional, and international levels. We will achieve this goal, as well as our shared objectives, through the synergy we have been actively building over the past years.

Every scientific field has its significance and value within a given social context, but agricultural production holds a particularly vital place.

Our shared task is not only to improve production, but also to strengthen the importance and dignity of agriculture in society. Above all, we must inspire young people to recognize their potential right here, because faculties and universities exist first and foremost for them—the younger generation. They are our future, but also our most important connection to society.

With great joyfulness we thank you for active participation in the Meeting

Prof. Emilija Arsov, PhD
Dean of Faculty of Agriculture
&
Chair of the Organizing Committee

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VOLATILE PROFILE AND SENSORY EVALUATION OF COLD-PRESSED SUNFLOWER OILS
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Abstract

Vegetable oils are divided in two types. The first one belongs to the oils in terms of energy storage in plants as fatty acids bond in triglycerides, typical for oils derived from different plant seeds. The second one belongs to essential oils which are produced as self-defense or attractant compounds. Most of essential oils are used in flavour industries such as food, beverage, traditional medicine and perfumery because of their terpenic nature. Virgin sunflower oil seems to be link between those two types of oil. The sunflower seeds contain fixed oil as the major oil which is mixture of saturated and unsaturated fatty acids mainly bonded as triglycerides and minor quantity of terpenic oil with predominant fraction of monoterpene hydrocarbons. Volatile profile and sensory evaluation of 16 cold pressed sunflower oils were object of this study. Low abundance of monosaturated oleic acid and very high abundance of polyunsaturated linoleic fatty acid (presented in abundance more than 60%) can cause faster oxidation in comparison to high oleic sunflower oils which can induce unpleasant 'rancid', 'sour' or 'bitter' taste. The quantity of α -pinene can be used as also marker for the process of cold-pressing of sunflower oil. This monoterpene hydrocarbon is very volatile and extremely low level of α -pinene as well as significant lower concentration of all other monoterpenes can lead us to conclusion that the quality of the seeds is very poor or incorrect pretreatment of the seeds was applied.

Key words: *sunflower oil, fixed oil, essential oil, volatile profile, sensory analysis, monoterpenes, α -pinene.*

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