

**POLISH SOCIETY FOR HORTICULTURAL SCIENCE
LUBLIN DIVISION**

**International Scientific Conference
„HORTICULTURE IN SHAPING LIFE QUALITY”**

and

**45th JUBILEE
OF THE FACULTY OF HORTICULTURE AND LANDSCAPE
ARCHITECTURE**

University of Life Sciences in Lublin



**2nd Announcement
LUBLIN, 18-19 June 2015**

The Dean and the Faculty of Horticulture and Landscape Architecture Council of the University of Life Science in Lublin would like to thank for your interest in the Conference and appreciate your wish to participate in the meeting which will be held on the 18-19th of June 2015 at the Congress Centre of the University (Akademicka 15 Street). The Conference 'Horticulture in shaping life quality' is organized to mark the 45th Jubilee of the scientific and didactic activity of the Faculty.

Abstracts of scientific presentations prepared for the Conference (1 page in English) should be submitted electronically via e-mail to:

renata.nurzynska@up.lublin.pl

till the 15th of March 2015

(editorial requirements: font TNR 12, line spacing 1.5, margins: left 3 cm, other margins 2.5 cm). The abstract should contain: a title, names and surnames of the Authors, affiliation name and address, corresponding author's e-mail and the text should include a short introduction, material and methods, results and conclusions (please see the attachment with an example).

The submitted papers will be presented in a form of posters which shall measure 70 cm (width) x 90 cm (height). The Conference organizers reserve the right to determine the form of presentation of the presented papers.

Full texts might be published in the following scientific journals: Folia Horticulturae (8 points MNiSW), Acta Scientiarum Polonorum Hortorum Cultus (20 points), Acta Agrobotanica (8 points), Annales UMCS sectio EEE Horticultura (2 points) according to the general rules of each publisher. The term of printing will depend on the date of submission.

Prof. dr hab. Zenia Michalojc

The Dean of the Faculty of Horticulture and Landscape Architecture

FRAME PROGRAMME OF THE CONFERENCE

I. 18th of June (Thursday)

- 1. Plenary Lecture – invited lectures**
- 2. Thematic panels**
- 3. Poster session**
- 4. A grand dinner**

Thematic panels:

- I. Vegetable crops, seed production and herbology**
- II. Pomology and plant nursery**
- III. Ornamental plants and landscape architecture**
- IV. Biology of plants, biotechnology and plant protection**

II. 19th of June (Friday)

Plenary Session

The conference fee (450 PLN, PhD students 250 PLN) shall be made to the account of the co-organizer:

Polskie Towarzystwo Nauk Ogrodniczych
Oddzial w Lublinie
20-068 Lublin, ul. Leszczyńskiego 58

Bank PEKAO S.A. Oddzial w Lublinie
nr 89 1240 5497 1111 0000 5010 9405
transfer details: Conference 2015, name and surname

Proves of payments shall be sent to:

Katarzyna Dzida, PhD
Katedra Uprawy i Nawożenia Roslin Ogrodniczych
Uniwersytet Przyrodniczy w Lublinie
ul. Leszczyńskiego 58, 20-068 Lublin

till the 15th of March 2015

The organizers may propose the following places for accommodation (at negotiated prices, a reservation is necessary till the 15th of May)

Hotel **HUZAR** - single room with breakfast - 130 PLN, double room with breakfast - 180 PLN (9 Spadochroniarzy St., 20-043 Lublin, phone no. 81 533 05 36)

Hotel **MLYN** - single room - 130 PLN + 15 PLN for breakfast, double room - 130 PLN + 15 PLN for breakfast (23a Aleje Racławickie, 20-400 Lublin, phone no. 81 536 70 20)

A detailed programme of the conference will be sent to the participants in the 3rd announcement (May 2015)

(an abstract template)

**Chemical composition of essential oils from leaves, flower buds and flowers of lavender
(*Lavandula angustifolia* Mill.)**

Renata Nurzyńska-Wierdak

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Medicinal plants synthesizing essential oils are popular throughout the world, both on natural stands and as cultivated plants. Biosynthesis of volatile oils can take place in different plant organs and its course is determined by ontogenetic and environmental factors. Medicinal lavender (*Lavandula angustifolia* Mill.) from the Lamiaceae family, is an appreciated curative plant, used also in cosmetic industry, perfumery, food and for decorative purposes. The main active substance of lavender raw material is essential oil. Leaves, flower buds and flowers of medicinal lavender (*Lavandula angustifolia* Mill.) were collected from 2-year old plants grown in an experimental farm of the University of Life Sciences in Lublin in South-Eastern Poland (51°23'N, 22°56'E). Lavender leaves were collected before blooming (2.06.2013), flower buds and flowers – in the initial phase of their development (respectively: 14.06 and 15.07.2013). The collected plant material was dried in the temperature of 35°C and designed for hydrodistillation conducted in Clevenger-type apparatuses. The quantitative and qualitative composition of lavender oil was determined with the use of gas chromatography and mass spectrometry methods (GC-MS) Varian 4000 MS/MS. Concentration of essential oil was on average 2.2 ml 100 g⁻¹ and increased as lavender developed, from 0.6 ml 100 g⁻¹ (leaves) through 2.7 ml 100 g⁻¹ (flower buds) to 3.2 ml 100 g⁻¹ (developed flowers). The chemical composition of examined lavender oil depended on the kind of analyzed raw material. In total, the presence of 70 compounds was determined. Lavender flowers, regardless of the phase of their development had greater concentrations of essential oil and linalool, as well as linalyl acetate in the oil, as well as phenolic compounds and antocyanins, together with greater antioxidant potential compared to leaves. Lavender oil has rich chemical composition, which is quantitatively and qualitatively variable in the plant development process. The predominant components in the oil distilled from leaves were: *epi-α*-cadinol (17.8%), cryptone (10.4%), 1,8-cineole (7.3%) and caryophyllene oxide (7.2%). The oil obtained from lavender flowers was, in turn, characterized by high share of linalyl acetate (22.3 - 32.1%) and linalool (23.9 - 29.9%).