

PROCEEDINGS OF THE

20th INTERNATIONAL SUNFLOWER CONFERENCE



Novi Sad, Serbia
June 20-23, 2022

Proceedings of the

20th International Sunflower Conference



Novi Sad, Vojvodina, Serbia
June 20-23, 2022

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Proceedings of the 20th International Sunflower Conference
Novi sad, Serbia, June 20-23, 2022

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The proceedings of the 20th International Sunflower Conference contain 153 contributions from scientists of 30 countries. They include plenary lectures, oral talks and regular communications presented with posters, among which, selected contributions were emphasized with short oral talks. The manuscripts are classified by research areas in ten separate sections. They offer a thorough review of the current state of the art of sunflower research and production around the world. The Organizing Committee is grateful to Tanja Vunjak and Aleksandar Vojisavljević for their excellent editorial assistance in the preparation of these Proceedings.

ISC2022 Organizing committee



Conference program

Sunday, 19 June

16.00-21.00	Registration
19.00-21.00	Welcome Reception

Monday, 20 June

8.00-17.00	Registration	
9.00-9.30	Opening Ceremony	
9.30- 10.15	Invited talk Section 1: Dr. Felicity Vear (France)	
10.15-11.00	Coffee break	
11.00-12.00	Section 1: Breeding – New/old breeding goals and challenges	Section 2: Oils and proteins – Innovations for increased quality and feedstock supply
	Oral and short oral presentations	Oral and short oral presentations
12.00-13.30	Lunch	
13.30-14.30	Invited talks Section 3: Dr. C.C. Jan (China) Section 4: Dr. Sreten Terzić (IFVCNS, Serbia)	
14.30-15.00	Coffee break	
15.00-16.00	Section 3: Confectionery sunflower – Emerging crop	Section 4: Genetic resources – Investment for the future
	Oral and short oral presentations	Oral and short oral presentations
16.00-17.00	Poster session – Sections 1, 2, 3, 4	
18.00-21.00	Novi Sad and Petrovaradin fortress tour	

Tuesday, 21 June

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10.30-11.00	Coffee break	
11.00-12.00	Section 5: Biotic stress resistance – New and emerging pests and diseases	Section 6: Crop production and modeling – Yield stability in changing environment
	Oral and short oral presentations	Oral and short oral presentations
12.00-13.30	Lunch	
13.30-14.30	Invited talks Section 7: Dr. Nicolas Langlade (INRAE, France) Section 8: Etienne Pilorgé (Terres Inovia, France)	
14.30-15.00	Coffee break	
15.00-16.00	Section 7: Abiotic stress resistance – Challenges of changing environment	Section 8: Economy and market – Trends and prospects
	Oral and short oral presentations	Oral and short oral presentations
16.00-17.00	Poster session – Sections 5, 6, 7, 8	

Wednesday, 22 June

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10.30-11.00	Coffee break	
11.00-12.00	Section 9: Broomrape – Constant challenge	Section 10: Bees and seeds – Exploring new venues for increased yield and seed production
	Oral and short oral presentations	Oral and short oral presentations
12.00-13.30	Lunch	
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14.30-15.00	Coffee break	
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15.00-16.30	ISA Assembly	
16.30-17.00	Closing ceremony	
20.00-24.00	Gala Dinner Pustavoit Award Presentation Ceremony IFVCNS Best Poster Award Presentation	

Thursday, 23 June

9.00-15.00	Field day
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CLICK BEETLES MONITORING USING PHEROMONE TRAPS IN SERBIA

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Abstract

Wireworms are the larvae of click beetles (Coleoptera: Elateridae) and can be of great economic importance in agriculture, especially for production of row crops such as sunflower. They feed on underground plant parts causing a reduced crop stand. Young plants, up to three pairs of leaves, are at higher risk. Larvae can live from two to five years in the soil depending on the species. Although only larvae are treated as pests, monitoring and control of adults, click beetles, can contribute to reduction of damages caused by larvae in the following years. The objective of this research was to monitor the activity of click beetles and determine the most abundant species in the region of Novi Sad (Serbia). For this purpose Csalomon pheromone traps, type YF, were used with five different pheromones for collecting: *Agriotes ustulatus*, *A. sputator*, combined pheromones for *A. rufipalpis* + *A. sordidus* and *A. lineatus* + *A. obscurus* (males) and *A. ustulatus* (males + females, pheromone + floral bait). For every pheromone two traps were deployed on sunflower fields at Rimski šančevi, in the vicinity of Novi Sad, during 2018 and 2019. The results showed that in both years the most abundant species was the *A. ustulatus*, with 288 specimens in traps with pheromones (males) and 190 specimens in traps for both, males and females. Furthermore, during these two years 121 click beetles were collected in *A. rufipalpis* + *A. sordidus* traps, 73 specimens of *A. sputator* and 44 of *A. lineatus* + *A. obscurus*. Difference in click beetles abundance between years was also noted. In 2018 a total of 518 specimens were collected, while in 2019 only 198 specimens were sampled. The highest activity for *A. ustulatus* and *A. sputator* was at the end of June and the beginning of the July, while for the other species it was few weeks earlier. Although imagoes of click beetles are not treated as pests, their control in the stadium of adults should be considered.

Keywords: sunflower, wireworms, *Agriotes* spp.

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