

International Symposium on Broomrape (*Orobanche spp.*) in Sunflower

By

Republic of Türkiye

Ministry of Agriculture and Rural Affairs

**The General Directorate of Agricultural
Research**

**Trakya Agricultural Research Institute
Edirne, Türkiye**

Collaboration with

Turkish Plant Breeders Association

International Sunflower Association

FAO (Food and Agriculture Organization)

November 30 – December 3, 2008

Fame Residence Hotel, Antalya, Turkey

This symposium jointly organized by

Republic of Turkey

Ministry of Agriculture and Rural Affairs

The General Directorate of Agricultural Research

Trakya Agricultural Research Institute – Edirne

Turkish Plant Breeders Association

International Sunflower Association

FAO (Food and Agriculture Organization)

This symposium jointly sponsored by

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WELCOME NOTES

Dear Participants,

As the Chair for the **International Symposium of Broomrape (*Orobanche spp.*) in Sunflower** in Antalya, Turkey, I'd like to welcome you and to give some information on this event. Our symposium brings together a variety of sunflower researchers from government, commercial, and academic organizations worldwide to foster cooperation on sunflower and broomrape and to promote information sharing among researchers largely. The aim of our international symposium is present the newest research results and research goals, analyze present conditions and perspectives in Broomrape biology, plant host relationships and resistance breeding, chemical and other control methods in sunflower. As always, we also extend a warm welcome to all our colleagues in the sunflower research and industry who share our interest in improving information to increase the income of sunflower producers.

As organizers, we also would like to discuss in new project ideas on EU Research Framework and also on other international organizations. If you or your organization are interested in joining these discussions and taking part in preparing new projects, this will be great opportunity for further developments for sunflower research and these efforts will contribute to increase collaborations at international level among us. In addition to the excellent program, the symposium provides an excellent environment to meet your peers in sunflower research, build relationships, and exchange lessons learned.

As one of beautiful cities in the world, first time visitors to Antalya are usually overwhelmed by the sheer beauty of the city and surroundings. Antalya is a city that manages to surprise and enthuse in equal measure, with reminders of Antalya's rich landscape and historical sites. Antalya which is Turkey's principal holiday resort is an attractive city with palm lined street and it is full of history with a beautiful coastline of beach has and rocky coves where the towering Toros mountains. There is sunshine for 300 days of the year in Antalya and it is perfect place for sunbathing and swimming or for sporting activities such as windsurfing water-skiing, sailing and also climbing, trekking, hunting and skiing on mountains, etc... We are sure that these symposium days and half day sightseeing tour will be enough to notice the beauty of Antalya province but not enough to discover it.

We wish you nice stay in Antalya for truly rewarding days.

Dr Yalçın KAYA
Chair

On the behalf of Organizing Committee

Symposium Program:

Day	Event
Sunday, November 30, 2008	
16⁰⁰ - 19⁰⁰	Registration
Monday, December 1, 2008	
8³⁰ - 9⁰⁰	Registration
9⁰⁰ - 9³⁰	Opening Talks: Dr. Yalcin KAYA, Chair, Organizing Committee Dr. Necmi BESER, Director of Trakya Agricultural Research Institute Dr. Vehbi ESER, President of Turkish Plant Breeders Association Prof Dr. Dragan SKORIC, On the behalf of Scientific Committee Assoc. Prof Dr. Masum BURAK, Director General, The General Directorate of Agricultural Research
9³⁰ - 10⁰⁰	Invited speakers: A. Höniges, K. Wegmann, A. Ardelean Orobanche Resistance in Sunflower
10⁰⁰ - 10³⁰	Invited speaker: D. M. Joel, D. Plakhine Seed Conditioning of <i>Orobanche</i> in Agricultural Fields: Ecophysiological Aspects
10³⁰ - 10⁴⁵	Coffee break
10⁴⁵ - 12⁰⁰	1st Session: <u>BROOMRAPE BIOLOGY, PLANT HOST RELATIONSHIPS</u> Session Chair : Prof. Dr. Jose Maria Melero Vera
10⁴⁵ - 11⁰⁵	Broomrape (<i>Orobanche</i> spp.) Problem in The Eastern Mediterranean Region of Turkey F. Bülbül, E.Aksoy, S.Uygur, N.Uygur
11⁰⁵ - 11²⁵	Current status of broomrape (<i>Orobanche cumana</i> Wallr) in Serbia B. Dedić, N. Lačok, S. Tančić, S. Jocić
11²⁵ - 11⁴⁵	Sunflower broomrape (<i>Orobanche cumana</i> Wallr.) in Castilla-León, a traditionally non broomrape infected area in Northern Spain. J. Fernández-Escobar, M.I. Rodríguez-Ojeda, L.C. Alonso
11⁴⁵ - 12⁰⁰	Questions and Answers
12⁰⁰ - 13⁰⁰	Lunch
13⁰⁰ - 14¹⁵	2nd Section: <u>RESISTANCE BREEDING</u> Section Chair : Prof. Dr. Stevan Masirevic
13⁰⁰ - 13²⁰	Virulence and aggressiveness of sunflower broomrape (<i>Orobanche cumana</i> Wallr.) populations, in Europe M. Pacureanu Joita, S. Raranciuc, E. Sava, E. Petcu, N. Babeanu, O. Popa
13²⁰ - 13⁴⁰	The Wild Species <i>Helianthus</i> - Source of Resistance to the Parasite <i>Orobanche cumana</i> M. Christov, R. Batchvarova, M. Hristova-Cherbadzhi
13⁴⁰ - 14⁰⁰	Behavior of some sunflower cultivar at the broomrape attack in Romania V. Jinga, H. Iliescu, S. Stefan, D. Manole
14⁰⁰ - 14¹⁵	Questions and Answers
14¹⁵ - 14³⁰	Coffee break
14³⁰ - 17⁰⁰	3rd Section: <u>RESISTANCE BREEDING</u> Section Chair : Prof. Dr. Jose Maria Fernandez
14³⁰ - 14⁵⁰	Sunflower breeding for resistance to the new broomrape race in the Krasnodar region of Russia S.V. Gontcharov
14⁵⁰ - 15¹⁰	The Use of new Rf Inbred Lines Originating from Interspecific Population

	with <i>H. deserticola</i> for the Production of Sunflower Hybrids Resistant to Broomrape N. Hladni, S. Jocić, V. Miklič, D. Saftić-Panković, D. Škorić
15¹⁰ - 15³⁰	The performance of sunflower hybrids resistant to race F of <i>Orobanche cumana</i> Wall. in naturally infested fields. J. M. Melero-Vara, R. García Ruiz, J. Domínguez, M. L. Molinero-Ruiz
15³⁰ - 15⁵⁰	The Evaluation of Broomrape Resistance in Sunflower hybrids Y. Kaya, G. Evcı, V. Pekcan, T. Gucer, M. I. Yilmaz
15⁵⁰ - 16¹⁰	The Virulence of Broomrape (<i>Orobanche cumana</i> Wallr.) Populations on Sunflower in some Regions of Northern Caucasus T.S. Antonova, N.M. Araslanova, S.Z. Guchetl, T.A. Tchelustnikova, S.A. Ramazanova, E.N. Trembak
16¹⁰ - 16³⁰	Determination Superior Hybrid Combinations in Sunflower and Testing Hybrid Performance in Broomrape (<i>Orobanche Cumana</i> Wallr.) Infested Areas O. Gunduz, A. T. Goksoy
16³⁰ - 16⁵⁰	Ongoing Research Strategies for Sunflower Broomrape Control in Spain J. M. Fernández-Martínez, J. Domínguez, B. Pérez-Vich and L. Velasco
16⁵⁰ - 17¹⁰	Status of broomrape in Serbia S. Masirevic
17¹⁰ - 17³⁰	Questions and Answers
17³⁰ - 18³⁰	Discussion Session: Recent developments on the distribution of new race of Broomrape by participating countries Session Chair: Prof. Dr. Ferenc Vranýl
19⁰⁰ - 20⁰⁰	Dinner
Tuesday, December 2, 2008	
9⁰⁰ - 11⁰⁰	4th Session: Broomrape Chemical and Other Control Methods in sunflower Session Chair : Prof. Dr. Horia Iliescu
9⁰⁰ - 9²⁰	Improving sunflower for resistance to Orobanche and Sulfonylureas herbicides - Sunflower hybrid PF100 G. Dicu, N. Dumitrescu, M. Radu, O. Diaconescu
9²⁰ - 9⁴⁰	Control of Broomrape in Iran A. Esmaailifar, A. Nezamabadi, A. Mirabadi
9⁴⁰ - 10⁰⁰	Status of <i>Orobanche cernua</i> Loefl. and Weeds in Sunflower Production in Turkey M. Demirci, Y. Kaya
10⁰⁰ - 10¹⁵	Questions and Answers
10¹⁵ - 10³⁰	Coffee break
10³⁰ - 11³⁰	Discussion: COST and other joint EU Project proposals Session Chair : Prof. Dr. Dragan Skoric
11⁴⁰	Closing the symposium
12⁰⁰ - 12³⁰	Lunch
12³⁰ - 20⁰⁰	Sightseeing Tour (Antalya city and around)
20³⁰ - 21³⁰	Dinner
Wednesday, December 3, 2008, Leaving from the hotel	

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Dr Yalcin KAYA (Head of Committee)
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Prof Dr Dragan SKORIC

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EDITOR OF BOOK OF ABSTRACT

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The hotel and sightseeing tour arrangements are organized by SSC Tour Travel Agency.

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Current status of broomrape (*Orobanche cumana* Wallr) in Serbia

Boško Dedić, Nada Lačok, Sonja Tančić, Siniša Jocić

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ABSTRACT

Broomrape is the parasitic plant that presents the major problem in sunflower production in Serbia. Since its first appearance in our country the species *Orobanche cumana* Wallr had been responsible for considerable yield loss in some sunflower growing areas. In Serbia broomrape is mostly present in Vojvodina province, where distribution and virulence groups of parasite are constantly monitored. Only two distinct broomrape populations currently exist in this part of country. According to previous research race B is dominant in south of the Vojvodina province and race E in the north. During 2008 set of 8 commercial hybrids with different broomrape resistance genes were sown in regions of Vojvodina and Central Serbia with sunflower production, on 34 different locations. Presence of broomrape was confirmed on 6 sites but occurrence of parasitic plants was not detected on hybrids resistant to race E. The survey of sunflower fields in regions where broomrape was not previously detected was also done. Survey revealed occurrence of broomrape in the new region. Infested areas are placed in Bor County near state border with Romania and Bulgaria.

Key words: broomrape, sunflower, distribution, race