



## 1<sup>st</sup> International Cereal Cyst Nematode Initiative (ICCNI) Workshop 21<sup>st</sup>-23<sup>rd</sup> October, 2009 Antalya TURKEY

### Background – what is the ICCNI and its objectives?

The International Cereal Cyst Nematode Initiative (ICCNI) was formed in 2006 to create a critical mass of scientific capacity and skills to deliver sustainable solutions by working at both the applied and theoretical level

Cereal Cyst Nematode (CCN) *Heterodera spp.* is acknowledged as a global economic problem on wheat production systems, both in many regions of the developed world (Europe, USA and Australia) and also in developing countries. Within the framework of the ICWIP (ICARDA CIMMYT Wheat Improvement Program) which relates to wheat improvement research in Central Asia, West Asia and North Africa, CIMMYT and the Turkish Ministry of Agriculture in collaboration with our National Program partners from developing countries and several Advanced Research Institutions in Australia and Europe have undertaken research over the last 8 years to;

1. Understand the importance and distribution of the Nematode (CCN) which appears very widespread throughout West Asia, North Africa, parts of Central Asia, Northern India and China in their wheat production systems.
2. Investigate potential control options with a major emphasis on host resistance – both gene discovery, validation and integration of resistant sources (traditional and molecular) into wheat germplasm for global wheat production systems (particularly focused on rainfed or supplementary irrigation systems). Rotation has been partially explored.
3. Train and capacity build national program scientists from developing countries

### The first Inaugural Workshop – ICCNI Workshop, October 2008 in TURKEY

As CCN is a global problem of significant economic importance ICWIP and Turkey are hoping to raise the profile of and consolidate the research efforts to date with this International Workshop – the first in a series – that will;

- Highlight the importance of CCN in various countries/regions
- Provide present status of the collaborative efforts to address the disease
- Investigate the future prospects for International collaboration

The tentative agenda involves discussion, planning and prioritization of the following topics related to CCN;

1. Current Global status of the distribution of CCN
2. The economic importance and population dynamics of CCN on wheat
3. Control strategies of CCN on wheat using host resistance
4. Control strategies of CCN other than host resistance
5. Use of molecular tools for research with CCN (such as pathogen diagnostics, phylogeny studies and host resistance).

### Submission of abstracts for published proceedings

Official published proceedings will be made from this workshop. If you would like to contribute to the workshop please kindly email your abstract of no more than 250 words by **1<sup>st</sup> June 2009** to [a.dababat@cgiar.org](mailto:a.dababat@cgiar.org) using the example format attached below. The technical committee will review applications and inform contributors of acceptance as poster/paper by **1<sup>st</sup> July 2009**. Contributors with accepted papers will be asked to prepare a 2-4 page paper by **1<sup>st</sup> September 2009**.

The ICCNI workshop will take place from **Wednesday 21 October to Friday 23<sup>rd</sup> October 2009**, and will be held in a 5 star hotel **Hotel Otium Zeynep** <http://www.otiumhotels.com/hotelzeynep/eng/hotel.asp> on the Mediterranean coastal resort town of Antalya. All inclusive hotel costs are 56 Euro/night single, 74 Euro/night double and 100 Euro/night triple. The hotel is located 30 minutes from airport and can be reached with shuttle bus at approximate cost 30 Euro. Reservation at the hotel can be made via website, email [sales@otiumhotels.com](mailto:sales@otiumhotels.com), phone +90 242 725 4180 or fax +90 242 725 4372. Please quote the workshop name.

For more information and to confirm your participation, please contact by email Dr Julie M Nicol, Workshop organizer [j.nicol@cgiar.org](mailto:j.nicol@cgiar.org).

## **EXAMPLE ABSTRACT**

**INDICATE PREFERENCE (underline) : POSTER or PAPER**

**CONTACT NAME AND EMAIL:**

**TOPIC PREFERENCE (underline) : 1 2 3 4 5**

Please note abstracts should be submitted in 12 font times and abstract total no more than 250 words

### **SEASONAL VARIATION OF FIELD POPULATIONS OF *HETERODERA FILIPJEVI*, *PRATYLENCHUS THORNEI* AND *P. NEGLECTUS* ON WINTER WHEAT IN TURKEY**

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**Summary.** The development of cereal cyst nematode *Heterodera filipjevi* and root lesion nematodes *Pratylenchus thornei* and *P. neglectus* was investigated under rainfed cereal conditions over three growing seasons (2002-2005) on the winter wheat cultivar Bezostaya. Juvenile emergence of *H. filipjevi* was recorded during the winter period from November to March. The hatching process was correlated with the lowest temperatures. Mature white females were found on roots at the beginning of May and mature cysts appeared later on. The total number of cysts and eggs in the soil had only one peak at the end of each growing season, suggesting that *H. filipjevi* was monocyclic. Multiplication rates were inversely correlated with initial nematode densities with ceiling levels of between 15 and 20 eggs per g of dry soil. Population densities of *P. thornei* and *P. neglectus* were low from November to March/April during the cold snow period, increased gradually to June/July and then rapidly decreased over the summer period. Numbers of nematodes were positively correlated with temperature and the multiplication rate was 0.42-3.8 for *P. thornei* and 0.91-2.26 for *P. neglectus*.

**Key words:** Cereal cyst nematode, hatching cycles, population dynamics, root-lesion nematodes.