



European Network for the durable exploitation of crop protection strategies

IA3 Activity: Human resource exchange

ENDURE - Internal Mobility

Final activity report

(This form has to be completed and sent to the activity leader – the message should be sent to his p.a. elisa.scanzi@ibaf.cnr.it – within 15 days of the end of the visit)

SCREENING OF THE POTENTIAL COMPETITIVE ABILITY OF A MIXTURE OF WINTER WHEAT CULTIVAR AGAINST WEEDS

1. Information about researcher and sending partner

Name and surname: Federica Bigongiali

Professional status: PhD student

Sending partner: Scuola Superiore Sant'Anna

Institute/Department/Research Unit: LAND-LAB

Address: Via S.Cecilia 3, 56100 Pisa Italy

E-mail and phone number of the researcher: f.bigongiali@sssup.it ; 050 883506

Supervisor name*: Paolo Barberi

Supervisor e-mail*: barberi@sssup.it

Supervisor phone number*: 050 883449

*Supervisor information only for PhD student, post-doc and junior researchers

2. Information about hosting partner

Hosting partner: Faculty of Agricultural Science, research Centre Flakkebjerg , Aarhus University (DK)

Institute/Department/Research Unit: Department of Integrated Pest Management

Address: Forsøgsvej 1 DK-4200 Slagelse. tel: +45 8999 1900

Supervisor name*: Niels Holst and Preben Klarskov Hansen

Supervisor e-mail*: Niels.Holst@agrsci.dk and PrebenK.Hansen@agrsci.dk

Supervisor phone number*:

* For senior scientist indicate the name of the collaborating colleague

3. Information about the visit

Duration: 6 months

Start date: 8th May 2007

End date: 18th October 2007

4. Description of the activities and outcomes

Background and context: Two years of experience in open field experiments have as their object the competition between cultivars of wheat and weeds in conventional and organic systems.

Objective: Study of competition between four varieties of spring wheat (chosen to represent the range in varietal weed suppressiveness among varieties in the Danish variety list) and four weeds . Cultivar was studied in pureness and in mixer between them.

Activities carried out: Sampling was carried out in order to monitor:

1. Regularity of density of wheat
2. Phenological phase (according with Zadoks scale (1974), once a week.
3. Density of weeds
4. Biomass of wheat and weeds
5. Height of wheat
6. Crop and weeds canopy cover (By digital image analysis)
7. Harvest
8. Statistical analysis of data

5. Links between visit activity and ENDURE

The visit activity is connected with RA1 Optimising and reducing pesticide use (Leader: DIAS).

Study in depth competition between wheat varieties (with different morphological characteristics) and weeds can give informations useful for the management of weeds.

6. Impact

Added value for the researcher: Added knowledges about competitive ability of wheat varieties, and statistical analysis

Added value for sending partner and hosting partner: Possibility to compare the different methodologies used to study competitive ability. Possibility to investigate how climatic conditions can influence competition between crop and weeds.

Date of submission

23/1/2008



Dr. Maurizio Sattin
IA3 activity leader

Approved

