VERBALE N.18 DEL COLLEGIO DEI DOCENTI DEL DOTTORATO DI RICERCA IN *SCIENZE DELLE PRODUZIONI VEGETALI E ANIMALI*
RIUNIONE DEL GIORNO 08.02.2024

Il giorno **08.02.2024**, alle **ore 9.00**, viene aperta la riunione del Collegio dei Docenti del Corso di *Dottorato di Ricerca in Scienze delle Produzioni Vegetali e Animali*, convocata d'urgenza con mail del 05.02.2024, con i seguenti punti all'OdG:

1. Comunicazioni
2. Proposta di Commissione e data di esame finale dei Dottorandi Luca BONFIGLIOLI, Gaia Salvatore FALCONIERI, Alberto PACCHIARELLI (36° ciclo)
3. Varie ed eventuali

La riunione si svolge per via telematica tramite posta elettronica.

Sono presenti: Prof.ssa Stefania ASTOLFI, Prof. Giorgio Mariano BALESTRA, Prof.ssa Loredana BASIRICO', Prof.ssa Roberta BERNINI, Prof.ssa Laura BERTINI, Prof. Umberto BERNABUCCI, Prof.ssa Mariateresa CARDARELLI, Prof.ssa Carla CARUSO, Prof. Giuseppe COLLA, Prof. Mario CONTARINI, Prof. Valerio CRISTOFORI, Prof. Marco ESTI, Prof.ssa Ljiljana KUZMANOVIC, Prof. Nicola LACETERA, Prof.ssa Katia LIBURDI, Prof. Roberto MANCINELLI, Prof.ssa Stefania MASCI, Prof. Angelo MAZZAGLIA, Prof. Andrea MAZZUCATO, Prof. Maurizio MICHELI, Prof. Rosario MULEO, Prof. Simone PRIORI, Prof.ssa Maria Nicolina RIPA, Prof. Francesco ROSSINI Prof. Roberto RUGGERI, Prof. Luca SANTI, Prof. Daniel Valentin SAVATIN, Prof. Francesco SESTILI, Prof. Cristian SILVESTRI, Prof. Stefano SPERANZA, Prof.ssa Anna Maria TIMPERIO, Prof. Andrea VITALI, Prof. Eduardo Gabriel VIRLA, Dott. Alberto BATTISTELLI, Dott. Eugenio BENVENUTO, Dott. Gianluca BURCHI, Dott. Aldo CERIOTTI, Dott. Gianfranco DIRETTO, Dott.ssa Anna Maria D'ONGHIA, Dott.ssa Chiara FRAZZOLI, Dott. Angelo SANTINO, Dott.ssa Chiara VOLPI.

È assente giustificato il Prof. Raffaele CASA.

Svolge la funzione di Presidente la Prof.ssa Roberta BERNINI - Coordinatrice del Corso di Dottorato di Ricerca - e di Segretario verbalizzante la Prof.ssa Katia LIBURDI.

1. Comunicazioni
(a) La Coordinatrice comunica al Collegio dei Docenti di aver ricevuto la Nota del Direttore Generale Prot.0002192 del 02/02/2024 che fa riferimento alla cessazione dell'erogazione della borsa di studio nei confronti di Federico DI LORETO, a seguito della rinuncia del Dottorando alla frequenza del Corso di Dottorato a partire dal 01.02.2024. Il Dottorando beneficiava di una borsa di studio finanziata nell'ambito del Progetto National Research Centre for Agricultural Technologies AGRITECH (Tutor: Prof.ssa Mariateresa CARDARELLI; co-tutor: Prof. Giuseppe COLLA).
(b) La Coordinatrice rende noto il link del Webinar di presentazione dell'Offerta Formativa di Rome Technopole per gli studenti e i Dottorandi di Ricerca che si svolgerà venerdì 9 febbraio p.v. dalle ore 10.30 alle ore 12.30 (https://vai.uniroma3.it/spoke3).

2. Proposta di Commissione e data di esame finale dei Dottorandi Luca BONFIGLIOLI, Gaia Salvatore FALCONIERI, Alberto PACCHIARELLI (36° ciclo)
La Coordinatrice comunica di aver ricevuto le schede dei valutatori esterni della tesi dei Dottorandi Luca BONFIGLIOLI, Gaia Salvatore FALCONIERI, Alberto PACCHIARELLI (in allegato al presente verbale).
La Coordinatrice si congratula con i Dottorandi per le eccellenti valutazioni conseguite che consentono loro di essere ammessi all'esame finale.

In accordo al Regolamento di Ateneo in materia di Dottorato di Ricerca, vengono proposti Commissione, data, ora e luogo di esame.

Commissione

Componenti effettivi

- Prof. Marco CIRILLI - Professore Associato, SSD AGR/03
  Università degli Studi di Milano Statale; E-mail: marco.cirilli@unimi.it
- Prof. Andrea PORCEDDU - Professore Ordinario, SSD AGR/07
  Università di Sassari; E-mail: aporceddu@uniss.it
- Prof.ssa Laura ZUCCONI GALLI FONSECA - Professore Associato, SSD BIO/01
  Università degli Studi della Tuscia; E-mail: zucconi@unitus.it

Componenti supplenti

- Prof. Alfredo DI FILIPPO - Professore Associato, SSD BIO/03
  Università degli Studi della Tuscia; E-mail: difilippo@unitus.it
- Prof. Luigi RUSSI - Professore Associato, SSD AGR/07
  Università degli Studi di Perugia; E-mail: luigi.russi@unipg.it

Data e ora: 15.03.2024, ore 9.30.
Luogo: Aula Blu, Dipartimento di Scienze Agrarie e Forestali (DAFNE).
Modalità di svolgimento: in presenza.
Il Collegio dei Docenti approva.

7. Varie ed eventuali

Nessuna.

La riunione si chiude alle **ore 18.00**.
Il Collegio dei Docenti approva il verbale.

Il Segretario
Prof.ssa Katia LIBURDI

Il Presidente
Prof.ssa Roberta BERNINI

PhD Program in Plant and Animal Science, University of Tuscia, Viterbo (Italy)

Coordinator: Prof. Roberta BERNINI

Reviewer report (template)

N.B. The following template should be intended as a flexible model. The actual report may be adapted by the reviewer according to his/her needs.

PhD student: BONFIGLIOLI Luca

Title of the thesis: Durum wheat assessment for organic agriculture and for tolerance to drought and salinity

Reviewer (surname, name and affiliation): GRAUSGRUBER Heinrich, Institute of Plant Breeding, University of Natural Resources and Life Sciences, Vienna, Tulln an der Donau, Austria

Scientific quality	**Excellent**	**Good**	**Fair**	**Poor**
Originality of the research		X		
Suitability of the title with respect to the content		X		
Efficacy of the abstract	X			
Clarity of the aims	X			
Exhaustiveness of the introduction/state of art		X		
Suitability of the methodology	X			
Description of the experimental procedure	X			
Interpretation of the results		X		
Appropriateness of the discussion		X		
Completeness of references		X		
Overall evaluation		*X*		

General comments and remarks:

- Formula for broad-sense heritability (p. 14) is not correct; probably a typo – student should check if it is only a typo or if calculations were wrong; in the latter calculations and tables need to be revised
- No idea if university politics does not allow to include the PDF of the published works, but if yes, it would be better to include just the respective PDFs of the works related to Chapters 3 to 5 (and not the MS Word document of the final manuscript version).
- The citation style throughout the document (chapters) is different: for some chapters it is not by authors but by numbers. Including the respective PDFs of the published chapters would not suggest that the student is inconsequent with respect to the citation style but this is due to the different journals where the work was published.
- Despite the point above, the citation style in the "References" is very heterogeneous. For example: (i) inconsequent use of upper and lower case in titles of articles and journal titles; (ii)

inconsequent use of 'pp.' in journal articles (should be preferably generally avoided); (iii) inconsequent inclusion of issue number (may be generally deleted); (iv) inconsequent reference to the DOI; (v) missing of article ID or page numbering for some references or missing information on book editors and/or publisher for some cited book chapters.

The thesis is accepted:

☐ ***After minor revisions***

With major revisions, is it requested a revised version after 6 months?

☐ ***NO***

Date

Signature

Signed by:	Heinrich Grausgruber
Date:	22.01.2024 13:32:58

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PhD Program in Plant and Animal Science, University of Tuscia, Viterbo (Italy)

Coordinator: Prof. Roberta BERNINI

Reviewer report (template)

N.B. The following template should be intended as a flexible model. The actual report may be adapted by the reviewer according to his/her needs.

PhD student: Luca Bonfiglioli

Title of the thesis: Durum wheat assessment for organic agriculture and for tolerance to drought and salinity.

Reviewer (surname, name and affiliation): Mastrangelo Anna Maria, CREA-Research Centre for Cereal and Industrial Crops, Foggia, Italy.

Scientific quality	**Excellent**	**Good**	**Fair**	**Poor**
Originality of the research			X	
Suitability of the title with respect to the content	X			
Efficacy of the abstract	X			
Clarity of the aims	X			
Exhaustiveness of the introduction/state of art	X			
Suitability of the methodology	X			
Description of the experimental procedure		X		
Interpretation of the results		X		
Appropriateness of the discussion	X			
Completeness of references				
Overall evaluation	*X*			

General comments and remarks:

With three published papers this thesis is very reach of results well discussed. I have just some minor remarks to do:

- Table 2.7 pag. 23, and Table 2.8 pag. 24: add measure units for the phenotypic traits.
- Fig. 3.5 pag. 46: explain all the abbreviations in the legend (many are missing from WRKY to NACRS).
- Pagg. 68-69: report the number of biological replicates for the experiment in controlled conditions.
- Table 4.1 pag. 72: something wrong with the value 99 leaves.
- Chapters 5 and 6: the analysis with the SSRs linked to root traits based on the literature is very interesting and offers good indications for marker assisted selection, but in my opinion it should be stressed in the Discussion that further studies are needed to state that these markers can be used to transfer stress tolerance alleles from the tolerant genotypes to susceptible ones, if the

association between the marker and the phenotype has not been found exactly in the genotypes tested in the present study. Indeed, the tolerant genotypes could carry different QTLs for stress tolerance, and the percentage of the phenotypic variation which can be attributed to the locus linked to the SSR marker herein analyzed is not known due to the very small number of genotypes tested.

The thesis is accepted:

- ☐ ***In the present form***
- ***X*** ***After minor revisions***
- ☐ ***After major revisions***

With major revisions, is it requested a revised version after 6 months?

- ☐ ***YES***
- ☐ ***NO***

Date January 23, 2024 Signature

Anne Marie Hostyn

PhD Program in Plant and Animal Science, University of Tuscia, Viterbo (Italy)

Coordinator: Prof. Roberta BERNINI

Reviewer report (template)

PhD student: Gaia Salvatore Falconieri

Title of the thesis: Unraveling the molecular basis of the microbe-plant-pest network using tomato as a model system

Reviewer (surname, name and affiliation): Baccelli, Ivan – Consiglio Nazionale delle Ricerche (CNR) – Istituto per la Protezione Sostenibile delle Piante (IPSP)

Scientific quality	**Excellent**	**Good**	**Fair**	**Poor**
Originality of the research	X			
Suitability of the title with respect to the content		X		
Efficacy of the abstract	Abstract not provided			
Clarity of the aims	X			
Exhaustiveness of the introduction/state of art		X		
Suitability of the methodology	X			
Description of the experimental procedure	X			
Interpretation of the results	X			
Appropriateness of the discussion		X		
Completeness of references		X		
Overall evaluation	X			

General comments and remarks:

I have read this thesis with great pleasure. The thesis topic is topical and original. The work performed by the PhD student is coherent with the objectives stated. The thesis is overall well-written and presented. Some minor grammar mistakes can be found within, but with a second reading that I recommend, these shortcomings will be easily corrected. This is my list of remarks:

1) An abstract is missing.

2) The introduction is very long and addresses probably too many topics. I do not suggest cutting because more is better than less, but the specific state-of-the-art of the beneficial microbes studied with the thesis should emerge more clearly. In particular, it should be stated more clearly the aspects concerning *B. bassiana* and *T. harzianum* , or their combination, that have never been studied or understood before. Are there any other proteomics/metabolomics studies published so far? Are there any other studies using the two microbes alone/in combination and/or against these pests? My feeling is that the novelty of the thesis work (which is real) is not however sufficiently highlighted. The chapter 2 could be used to shortly highlight, in a few sentences, the aspects never or poorly investigated so far.

3) Discussion and (accordingly) references: again, how these data fill a gap of knowledge in the specific literature concerning *B. bassiana* and *T. harzianum* is not sufficiently highlighted in my opinion. The chapter

5 could be used for this purpose. In particular, it could be used to summarize the main new results/conclusions obtained with the thesis work, both in relation to the Goals stated in the chapter 2 and to the state-of-the-art of the two microbes.

4) Paragraph headings: please change the titles from 4.2.1.1 to 4.2.1.7. It is really too difficult to understand the content. I suggest using more words and less math symbols.

Other comments:

-pag. 9: "defense is an intact and impenetrable barrier composed of bark and a waxy cuticle." It think "cell wall" rather than "bark" should be used.

- "On the contrary" is often used to mean "In contrast with". Please check within the whole thesis.

- pag. 16: "modulation of environmental stress". Hormones can modulate the plant's response to stress, but not the stress agent. Please correct.

- pag. 27: "Ostrinia nubilalis" in italics.

- pag. 28: "1.5.2 Trichoderma spp.", italics missing

- pag. 38: "Solanum proteome", italics missing

- pag. 41, 3.1.6: "(i) controls", specify what are the controls.

- pag. 44: remove space after "activity was determined"

- pag. 51: "*Beauveria bassiana* promote" correct as "Beauveria bassiana promotes"

- pag. 62: "4.1.3 *Beauveria bassiana* affects the profile of plant hormone" correct as "hormones"

- pag. 66, Fig 17 legend: it seems that the disease severity classes (from II and III) do not consider the range 3-5 mm, why??

- pag. 70: "This suggest that SOD activity in B. cinerea-infected samples is higher than in B. bassiana + B. cinerea-treated plants (Fig. 19B)". This conclusion is not clear to me… (add "s" after suggest)

- Fig. 21, 22, 23: specify what "cc" stands for

The thesis is accepted:

- ☐ ***In the present form***
- ☒ ***After minor revisions***
- ☐ ***After major revisions***

With major revisions, is it requested a revised version after 6 months?

- ☐ ***YES***
- ☐ ***NO***

Date 23/01/2024 Signature

PhD Program in Plant and Animal Science, University of Tuscia, Viterbo (Italy)

Coordinator: Prof. Roberta BERNINI

Reviewer report (template)

N.B. The following template should be intended as a flexible model. The actual report may be adapted by the reviewer according to his/her needs.

PhD student: Gaia Salvatore Falconieri

Title of the thesis: Unraveling the molecular basis of the microbe-plant-pest network using tomato as a model system

Reviewer (surname, name and affiliation): Patrizia Polverino de Laureto, Università di Padova

Scientific quality	**Excellent**	**Good**	**Fair**	**Poor**
Originality of the research		x		
Suitability of the title with respect to the content	x			
Efficacy of the abstract: not present				
Clarity of the aims	x			
Exhaustiveness of the introduction/state of art	x			
Suitability of the methodology	x			
Description of the experimental procedure	x			
Interpretation of the results	x			
Appropriateness of the discussion	x			
Completeness of references	x			
Overall evaluation	*X*			

General comments and remarks:

The thesis is well designed and written. Figures are of high quality. Results and conclusions are well structured.

The thesis would improve if an abstract were added to the text. It would be useful for future readers as well as for the PhD student for her practical use.

Moreover, a small paragraph about the statistical analysis employed in the experiments could be added, even though in the legends of the figure and in the experimental section the specific statistics is correctly reported.

Another suggestion concerns the description of the procedure used for proteomic analysis. In the para 3.1.3.4 Chromatographic and mass spectrometric analysis, some parameters are indicated with unusual value (4E5). Maybe these values could be removed because they are not informative or particularly useful for the output of the analysis. In the same para, I would suggest checking the procedure used for reducing and carbamidomethylate SS bridge and the column used for HPLC analysis.

The thesis is accepted:

- ☐ ***In the present form***
  X After minor revisions
- ☐ ***After major revisions***

With major revisions, is it requested a revised version after 6 months?

- ☐ ***YES***
- ☐ ***X NO***

Date

January 23, 2024

Signature

Patrizia Pothuizen de Santo

PhD Program in Plant and Animal Science, University of Tuscia, Viterbo (Italy)

Coordinator: Prof. Roberta BERNINI

Reviewer report (template)

N.B. The following template should be intended as a flexible model. The actual report may be adapted by the reviewer according to his/her needs.

PhD student: Alberto Pacchiarelli

Title of the thesis: Validation of new sustainable intensification models of hazelnut orchard

Reviewer (surname, name and affiliation): Lodolini Enrico Maria, Università Politecnica delle Marche

Scientific quality	**Excellent**	**Good**	**Fair**	**Poor**
Originality of the research		X		
Suitability of the title with respect to the content		X		
Efficacy of the abstract		X		
Clarity of the aims		X		
Exhaustiveness of the introduction/state of art	X			
Suitability of the methodology		X		
Description of the experimental procedure		X		
Interpretation of the results		X		
Appropriateness of the discussion		X		
Completeness of references	X			
Overall evaluation		X		

General comments and remarks:

The thesis is accepted:

- ☐ ***In the present form***
- ☐ ***After minor revisions X***
- ☐ ***After major revisions***

With major revisions, is it requested a revised version after 6 months?

- ☐ ***YES***
- ☐ ***NO***

Date

28/01/2024

Signature

Enrico Maria Lodolini

PhD Program in Plant and Animal Science, University of Tuscia, Viterbo (Italy)

Coordinator: Prof. Roberta BERNINI

Reviewer report (template)

N.B. The following template should be intended as a flexible model. The actual report may be adapted by the reviewer according to his/her needs.

PhD student: Dott. Alberto Pacchiarelli

Title of the thesis: Validation of new sustainable intensification models of hazelnut orchard
Reviewer: Celano Giuseppe, Università degli Studi di Salerno

Scientific quality	**Excellent**	**Good**	**Fair**	**Poor**
Originality of the research	x			
Suitability of the title with respect to the content	x			
Efficacy of the abstract	x			
Clarity of the aims	x			
Exhaustiveness of the introduction/state of art	x			
Suitability of the methodology		x		
Description of the experimental procedure		x		
Interpretation of the results	x			
Appropriateness of the discussion	x			
Completeness of references	x			
Overall evaluation	*x*			

General comments and remarks:

Excellent Thesis. Very minor suggestions are indicated in thesis.

The thesis is accepted:

- ☐ ***In the present form***
- ***X*** ***After minor revisions***
- ☐ ***After major revisions***

With major revisions, is it requested a revised version after 6 months?

- ☐ ***YES***
- ☐ ***NO***

Date

01/09/2024

Signature