



Annex 7
International Ph.D. in Agrobiodiversity

Coordinator	Prof. Paolo Bàrberi paolo.barberi@sssup.it	
Short description	The PhD Programme in Agrobiodiversity is aimed at the enhancement of human resource capacities in the use and management of genetic, species and habitat diversity in agroecosystems, in order to improve their sustainability and the conservation and valorization of genetic resources for the well-being of present and future generations For more information: http://www.sssup.it/agrobiodiversity	
Language	English	
Duration	3 years	
Curricula	A	Plant genetic resources
	B	Functional biodiversity in agroecosystems
Reserch Areas	- Genetic variation in single genes and entire genomes of agricultural and forestry plants and their wild relatives;	
	- Mechanisms that control the variability in genes and/or groups of genes, as those involved in resistance to pathogens and/or pests and tolerance to environmental stresses;	
	- Role of functional biodiversity, including interactions between pests/pathogens/weeds and domesticated/volunteer/wild plants, to support agro ecosystem resistance, resilience and stability;	
	- Role of functional biodiversity at genes/species/habitat levels to support agro ecosystem services, (e.g. crop yield, produce quality, crop protection, soil quality) and multifunctional land use;	
	- Physiology of plant adaptation to the environment.	
Positions	Six positions with scholarship	
Scholarship	Euro 14.000,00 (Euro fourteen thousand) per year (gross amount inclusive of the national insurance "Gestione separata INPS"), being disbursed in monthly instalments.	
Application deadline	Candidates are requested to apply online by 31 May 2015 in accordance with the procedures indicated in art. 3 of the call.	
Application enclosures	<p>Applicants should attach to their application:</p> <ol style="list-style-type: none"> a. copy of a valid identity document; b. Curriculum Vitae et Studiorum; c. Degree transcripts of MA/MSc: <ul style="list-style-type: none"> • for degrees obtained in Italy/EU countries, please submit a signed self-declaration (<i>autocertificazione</i>); • for degrees obtained in non-EU countries, please submit the degree certificate issued by the relevant University. <p>The document must, in any case, contain the following information:</p> <ul style="list-style-type: none"> - personal data, 	

- University details,
- Degree name,
- final score.

Students who have not yet defended their MSc thesis by the application deadline should submit the documents above except (1) the Master's degree and (2) final score. If selected in the list of candidates eligible for a scholarship, they are required to submit these information as soon as possible and in any case no later than 31 October 2015. In case of failure to deliver these documents, the scholarship will be awarded to the next eligible candidate in the ranking list.

- d. Detailed list of classes/exams successfully attended/passed (written in one of the following languages: English, Italian, French, German, Spanish or Portuguese). This list should contain information regarding credits (or equivalent units) and marks for each course taken and should also be provided by candidates who have not yet obtained their MSc degree by the deadline.
- e. a copy of the degree thesis or an abstract in English and copies of any other publication they deem suitable;
- f. At least two reference letters written by people who have supervised the applicant's work during his/her university studies or work period
- g. a Research Project, of no more than 3500 words (in English). The Research Project should include:
 - a title;
 - the scientific background and the relevant bibliography;
 - the aim and objectives of the research;
 - the experimental methods which could be used;

The submitted research project is meant for evaluation purposes and should preferably address one of the following subjects:

- Improved weed management in agroecosystems through increased diversity at genetic, species and/or habitat level.
- Cover crops as functional biodiversity components in arable and vegetable agroecosystems.
- Ecological services provided by species and habitat diversity and their management in agroecosystems.
- Exploring the role of functional biodiversity in agroecosystems through modelling.
- Plant biodiversity and its role in flooding/submergence tolerance.
- Rice tolerance to submergence: genetic, molecular and physiological basis of differences among species.
- Plant and crop fortification with iodine: identification of the molecular/physiological basis for differences between plant species.
- Physiology of the synthesis of anthocyanins in plants: identification of the molecular/physiological basis for differences between plant species.
- Environmental, metabolic, and hormonal regulation of plant growth.
- Analysis and exploitation of genetic resources in crop and forest tree species.
- Genetic mapping of complex traits in crops.
- Gene regulation mediated by non-coding RNAs in crop and/or model species.
- Addressing socio-economic issues concerning maintenance and exploitation of plant genetic resources in Africa.
- Postharvest stress physiology in perishable horticultural crops.
- Genotype x Environment interactions in the regulation of fruit ripening and composition.
- Management constraints to the yield-formation process in cereals.
- Soil fertility and plant-soil- water interactions.
- Improvement of nutritional and nutraceutical composition of cereals.

Other attachments, if any

- Publications (e.g.: articles on scientific journals, conference proceedings, etc);
- Other Master's and/or specialization degrees in subjects consistent with the research topics of this PhD programme;
- Teaching experience at university level
- Research and work experience
- Internships
- Language certificates (e.g.: Cambridge First Certificate in English (FCE), or

	<p>TOEFL (at least 220 points computer-based or 500 points paper-based). The level of equivalence of English language certificates is assessed by the Selection Committee.</p> <ul style="list-style-type: none"> • Mobility experience abroad (e.g.: Erasmus or similar) • Any other document certifying the applicant's excellence (prizes, fellowships and grants)
Selection of candidates	<p>The selection will be based on the assessment of the submitted documentation. Scores will be expressed in points out of a maximum of 100. The Examination Committee will assign a score based on the CV and the submitted publications, as well as the Research Project (in terms of quality and relevance for the Ph.D. programme).</p> <p>Applicants should obtain at least 70/100 points in order to be included in the ranking list of eligible candidates.</p> <p>The <u>admitted candidates</u> will be informed by e-mail of the results of the competition and will be asked to confirm acceptance of the scholarship by answering to info-lifesciences@sssup.it within 7 days. In case of lack of response within such period, the scholarship will be allocated to the next eligible candidate in the ranking list.</p>
Selection schedule	<p>The ranking list will be published on the web site http://www.sssup.it/phdapplicationonline no later than July, 3rd, 2015</p>
Information	<p>info-phdlifesciences@sssup.it tel. +39 050.883.345</p>