

ECPGR Activity Grant Scheme Proposal Form

Second Call

Activity Proposal

Activity	
Full title	AEGIS progress and development of EURISCO and the European Crop Specific Databases for forages
Acronym (or short title)	ForageDB
Duration of Activity (in months)	12
Starting date	2016-01-01

Applying Working Group(s)

Working Group	Indicate name and surname of Working Group Chair
1. WG Forages	Anna Palmé
2. WG Doc&Info	Ian D. Thomas as contact person
3.	
4.	

Activity Coordinator

Activity Coordinator	
Name and Surname	Anna Palmé
Nationality	Swedish
Current position	Senior Scientist
Institute	Nordic Genetic Resource Centre
Country	Sweden
Telephone	+46 (0)40 53 66 42
Email	anna.palme@nordgen.org

Activity Partners

Please note that each partner needs to be a member of a Working Group's Pool of Experts to be eligible.

A maximum of 12 funded partners can be listed. For self-funded partners please use the separate box below.

Partner ID No.	Name and Surname	Institute	Country
1	Anna Palmé (Task 1 lead, task 2)	NordGen (the Nordic Genetic Resource Centre)	Sweden
2	Stephan Weise (Task 2 lead; Info&Doc WG)	IPK (The Leibniz Institute of Plant Genetics and Crop Plant Research)	Germany
3	Evelin Willner (Task 1 and 2)	IPK (The Leibniz Institute of Plant Genetics and Crop Plant Research)	Germany
4	Ian D. Thomas (Task 1 and 2, Info&Doc WG)	IBERS (The Institute of Biological, Environmental and Rural Sciences, Aberystwyth University)	United Kingdom
5	Petter Marum (Task 1 and 2)	Graminor AS	Norway
6	Valentin Maya Blanco (Task 1 and 2)	CICYTEX (Centro de Investigaciones Científicas y Tecnológicas de Extremadura)	Spain
7	Bartosz Tomaszewski (Task 1 and 2)	Plant Breeding and Acclimatization Institute	Poland
8	Lajos Horváth (Task 2)	Research Centre for Agrobiodiversity	Hungary
9	Wilhelm Graiss (Task 1 and 2)	HBLFA (Höhere Bundeslehr- und Forschungsanstalt Raumberg-Gumpenstein, Abteilung für Vegetationsmanagement im Alpenraum)	Austria
10	Kjell-Åke Lundblad (Task 2, Info&Doc WG)	NordGen (Nordic Genetic Resource Centre)	Sweden
11			
12			

Lajos Horváth has so far not provided an "Expression of Interest" form but have via e-mail expressed an interest to take part.

Self-funded partners

Partner No.	Name and Surname	Institute	Country
1			
2			
3			

4			
5			
6			

Description of Activity

Please address the following aspects: Background – Justification – Methodology or Approach – Expected impact.

Describe the Activity (max. 500 words):

Background

There is a great need for updating and improving the European Crop Specific Databases (ECCDBs). Many of the forage ECCDBs contain outdated information and very seldom receive updates from the collection holders. In addition, many of the data bases would benefit from an improved web interface. We therefore suggest initiating the ECCDB pilot study described below. In addition, the task of establishing the European Forage Collection (EFC) is far from finished and the Forage WG would like to continue working towards this goal and for the development of EURISCO and the inclusion of more characterization and evaluation data in EURISCO.

Aim

The aims of this activity are (1) to continue to work towards the establishment of the EFC and (2) to further develop and improve the ECCDBs for forages and EURISCO, as well as the data therein.

Approach

This activity will include: (A) a workshop with the aim to give input to the work described under B and C below, to evaluate progress towards the EFC and give an opportunity for knowledge exchange; (B) practical data base work with the aim to develop and improve the ECCDBs for forages and EURISCO as well as identify gaps in EURISCO and add characterisation and evaluation data in EURISCO; (C) AEGIS tasks including application of the duplicate finder to identify duplicates within the EFC, in-depth studies on the progress of AEGIS selection and plans for future AEGISs work; (D) documentation of the outcomes.

All these activities will be performed in close cooperation with the Barley ECPGR working group if both groups receive funding. The workshop will be held together with the Barley WG and will mainly include common sessions but also specific sessions focused on forages. The database work described in B above will also be performed on the Barley database and the approaches used could at a later stage be implemented on other ECCDBs. In addition similar AEGIS tasks will be performed in the Barley project.

Tasks and justification

Task 1: continue the work towards the establishment of a high quality EFC according to the principles of AEGIS. Within this task the following subtasks will be performed (the associate activity in “Objectives of ECPGR for phase IX” is given in parenthesis):

- 1.1 Evaluation of current status of EFC and use the PGR duplicate finder (<http://documents.plant.wur.nl/cgn/pgr/aegisd/f/>) to identify duplicates among the accessions within the EFC and develop this approach for future use (Activity 1.2.2).
- 1.2 Conduct an in-depth study focused on a few selected collections to identify the reason behind non-inclusion and to evaluate what would be needed to increase the number of AEGIS accessions (Facilitate activity 1.2.1).
- 1.3 Make plans aimed at increasing the number of forage accessions in the EFC (Facilitate activity 1.2.1).

Task 2: Work towards improved quality and increased quantity of data in EURISCO and the ECCDBs and for integration of the two. Within this task the following subtasks will be performed (the associate activity in “Objectives of ECPGR for phase IX” is given in parenthesis):

- 2.1 Develop and improve the ECCDBs and EURISCO (Activity 2.4.2). This work will be done on one of the Forage ECCDBs (Poa) as a pilot study but the same approach could be used for other ECCDBs in the future. The aim is that any update that is made in EURISCO should be automatically done also in the ECCDB. In addition, the web interface of the Poa ECCDB will be improved.
- 2.2 Use data in ECCDBs to identify potential gaps in EURISCO and inform the national focal points

of these potential gaps (Activity 2.1.1).

2.3 Evaluate if new features in EURISCO could be developed to facilitate the AEGIS process (Facilitate activity 1.2.1).

2.4 Inclusion of evaluation and documentation data on forages into EURISCO according to the plan developed in the Forages 2020 project 2015 (Activity 2.2.1)

2.5 Information exchange on DivSeek (<http://www.divseek.org/>) and discussion on how genetic/genomic data can be linked to gene bank accessions (Activity 1.5.2, facilitate activity 2.2.1) (Funding for this will be applied fore within the Barley project.)

Expected impact
Task 1 will result in an improved EFC and a better understanding on what actions are needed to increase the number of accessions in the EFC. Task 2 will result in an improved Poa ECCDB, development of approaches to improve other ECCDBs and an improved quality and increased quantity of data in EURISCO. See “Expected products” below for more details.

ECPGR Objective(s)

Objectives must be feasible and achievable within the project timeline. Please list here the corresponding number(s) of the ECPGR Outcome(s) and/or Output(s) and/or Activities to which your proposed Activity will contribute. The logframe describing ECPGR objectives is available from the website.

List ECPGR outcomes, outputs, activities to which this Activity contributes:
Task 1: Outcome 1(AEGIS is operational...): Activities 1.2.1 and 1.2.2
Task 2: Outcome 2 (Quantity and quality of data in EURISCO...): Activities 2.1.1, 2.2.1 and 2.4.2 Outcome 1(AEGIS is operational...): Activity 1.2.1 and 1.5.2

Expected products

List concrete products and results that are obtained by the Activity

Expected products/results
<p>Task 1</p> <ol style="list-style-type: none"> 1) Identification of duplicates present in the EFC 2) Better understanding of the actions needed to expand the EFC 3) Plans on how the Forage WG should work to increase the number of accessions in the EFC (including concrete plans for future applications)
<p>Task 2</p> <ol style="list-style-type: none"> 1) Improved features in one Forage ECCDB (Poa DB) and EURISCO including automatic updating of the ECCDB from EURISCO and an improved web interface. Approaches developed to do similar improvements in other ECCDBs. 2) Identification of potential gaps in EURISCO and delivery of this information to relevant national focal points. 3) Development of new features in EURISCO to facilitate the AEGIS process (if this is deemed useful) 4) Inclusion of characterization and evaluation data on forages into EURISCO

Workplan for the proposed period of the Activity

Brief description of meetings and/or main actions of the Activity.

Type of Action (indicate if "meeting" or "other action")	Description
1. Meeting: Workshop for all participants	A workshop with the aim to give input to the work on databases and AEGIS described below, to evaluate progress towards the European Forage Collection and give an opportunity for knowledge exchange.
2. Other action: AEGIS tasks	Application of the duplicate finder to identify duplicates within the EFC, in-depth studies on the actions needed to increase the number of accessions in the EFC and plans for future AEGIS work.
3. Other action: Practical data base work	Practical data base work on one Forage ECCDB (Poa) and EURISCO, with the aim to further develop and improve the databases, integrate the ECCDB with EURISCO to enable automatic updates from EURISCO into the ECCDB, development of approaches to do this in other ECCDBs, integration of characterisation and evaluation data into EURISCO, identification of potential gaps in EURISCO and of new features in EURISCO to facilitate the AEGIS process.
4. Meeting: Data base workshop	Small workshop to support the practical data base work described above.
5. Other actions: Report	Documentation of the outcomes of the project.

Additional remarks

Indicate any additional remark(s) that is/are important for the evaluation/implementation of the proposed Activity

Remarks:

--

Please send the completed form together with the budget table to the Chair of the submitting Working Group for submission of the Activity proposal.