# ECPGR Working Group for Grain Legumes (WGGL)

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## Progress report for the period June 2006 – June 2008

| **I. RESULTS** | | | |
|---|---|---|---|
| **a. Comparison of workplan (milestones) versus results obtained** | | | |
| Workplan (milestones) | Which results have been obtained? | Which aims/goals have not been (fully) reached? | Completeness ratio (%) |
| **Milestone 1** | | | |
| **Milestone 2** | | | |

**b. Contribution to the four ECP/GR priorities for Phase VII**

1. Characterization/evaluation (including modern technologies)

**i**. Seed of 1536 *Pisum* accessions from 8 European collections were grown and prepped for DNA. This work was co-ordinated via the WGGL. During this reporting period the samples have been genotyped using 37 RBIP TAM makers and 5 SNP TAM markers as part of the EU GLIP project (appendix 1.)
**ii**. 2 x 200 accessions of *Vicia faba* from collections in Spain and France now form part of an extended composite collection together with 600 accessions from ICARDA (Aleppo) and are being genotyped with 50 SSR markers. The intention is to develop a core collection for Vicia from the analysis of this dataset. The work is being funded through the Generation Challenge programme.

2. Task sharing

In February 2007 Portugal reported problems with regeneration of their *Vicia faba* germplasm. Working Group member from Spain offered to assist.

3. *In situ*/on-farm conservation and development

**i**. The Chair of the Network attended the startup meeting of the AEGRO project 'An Integrated European In Situ Management Work plan: Implementing Genetic Reserves and On Farm Concepts' (AGRI GENRES 057). A report of the meeting was circulated to the WG and presented at the WGGL meeting in 11/07.
**ii**. Two members of the WGGL are due to attend and present legume case studies at the forthcoming co-ordination meeting of the AEGRO project in September.

3. Documentation and information

Progress has been made on a number of European Central crop databases.
**i**. *Vicia*. A new catalogue has been compiled in 2007 from 28 collections in 22 European countries. The collection comprises of 12476 entries.
**ii**. *Pisum*. A new catalogue has been compiled (07/08) from 43 collections in 26 European countries. The collection comprises of 32500 entries.
**iii**. *Lupinus*. In 05/08 the compilers initiated an updating of this database.

A number of the other existing GL databases were formed some years ago and plans are being developed for their updating.

**c. Relevance (regional / international)**

Did your work and/or outputs have inter-regional dimension? (if it did, give precisions)

**i.** The work and outputs of the WGGL were introduced as part of an international workshop for breeders held as part of the EU Grain Legume Integrated Project (04/07).
**ii.** Several members of the WGGL were invited as experts to participate in a meeting held by the Global Crop Diversity Trust to develop global conservation strategies for Lathyrus, Lentil, Chickpea and Vicia faba in 02/07.
**iii**. In November 2007 myself as Network Coordinating Group Chair was involved in collating information on grain legume germplasm in European collections in urgent need of regeneration for the Global Crop Diversity Trust. This formed part of a joint submission with the Cereals Co-ordinating Network.

**d. Lessons learnt (recommendations)**

Which lessons learnt are also relevant for other Working Groups?

The compilation of urgent regeneration needs was a useful exercise for the Network and should be a useful one for others to follow. It is important to update this information so that ECPGR has the information to hand when the need arises.

Another important area where further effort would be useful is in the coordination and maintaining for good data on levels of safety duplication.

| II. ANALYSIS | |
|---|---|
| **a. Bottlenecks** | |
| What were the experienced bottlenecks? | How do you plan to solve the bottlenecks? |
| Many of the agreed actions require in kind time and this does not always become available in the expected timeframe. | Revisit the workplan and revise timetables as necessary. |
| Regeneration of allogamous grain legumes is of ongoing concern. Information on urgent regeneration needs have been compiled (02/08) which provides an overview of the problem. | Collation of information was undertaken in response to the Global Trust offer of funds to assist in the regeneration of unique grain legume germplasm. |
| The numbers of collections represented within the central crop database is growing. The majority of the data is restricted to passport data with variable but generally low levels of data for key descriptors | Higher priority on key descriptors in any revision of the CCDB's. |
| **b. Internal support needed (Secretariat, Steering Committee, other Working Groups, etc.)** | |
| The Secretariat was most helpful in offering flexibility over one off actions.<br><br>Excellent Secretarial support was provided in the recent coordination and compilation of emergency regeneration requirements within European GL Collections where rapid communication within a number of member states was required. | |
| **c. External resources needed (collaboration, external funding)** | |
| All molecular diversity work was dependent on external funding sources. The work of WGGL members in preparing samples for this project was a significant undertaking and in-kind contribution to this project. | |

## Appendix 1.
## WGGL Co-ordinated *Pisum* Germplasm Screening with RBIP markers as part of the EU Grain Legumes Integrated Project

| | ECPGR members and affiliates | Region and Country of Collaborating Collection |
|---|---|---|
| **1** | Wojtek Swiecicki | Poznan, **Poland** |
| **2** | Loek van Soest | CGN, Wageningen, **NLD** |
| **3** | Sijka Angelova | Plovdiv, **Bulgaria** |
| **4** | Gerard Duc | Dijon, **France** |
| **5** | Graca Pereira | Elvas, **Portugal** |
| **6** | Alvaro Ramos &<br>Constantino Caminero Saldaña | Valladolid, **Spain** |
| **7** | Dr.Petr Smykal &<br>Dr. Miroslav Hybl | AGRITEC, **Czech Republic** |
| **8** | Margarita Vishnyakova | VIR, St. Petersburg, **Russia** |