

FIBRE CROPS WG REPORT FOR PHASE IX (2014-2018)

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1. CONTRIBUTION TO ECPGR OBJECTIVES

1.1. Achievements and success stories

Outcome 1. AEGIS is operational. Accessions in AEGIS are characterized and evaluated.

Unfortunately no progress during Phase IX.

A European Genebank Integrated System (AEGIS)

The first exposure of the WG to AEGIS took place during Phase IX, in the Second regular meeting of the Fibre Crops (Flax and Hemp) WG held in Šumperk-Velké Losiny, Czech Republic, 7-9 July 2010. At the time it was agreed to initially focus on flax for the selection of Most Appropriate Accessions (MAAs).

However, evidently the Working Group did not get sufficient understanding and/or incentive to pursue the AEGIS process and consequently, there was not much progress during the entire Phase IX. Currently only 70 *Linum usitatissimum* L. accessions are recorded in AEGIS, 52 from the Netherlands, 15 from the Nordic countries and 3 from Romania. A further set of 16 accessions of Czech origin are ready to be included into AEGIS after their approval by the National Coordinator. Three accessions of *Cannabis sativa* L. are recorded in the AEGIS European Collection at present (Table 1).

This situation will be the subject of further discussion and the chairman is planning to more strongly encourage the members to select the respective accessions to AEGIS.

Table 1. Number of *Linum usitatissimum* L. and *Cannabis sativa* L. accessions recorded in AEGIS catalogue

Crop	Country	Number of accessions	Remark
<i>Linum usitatissimum</i> L.	The Netherlands	52	
	Nordic countries	15	
	Romania	3	
	Czech Republic	16	In the process of being recorded after approval by National Coordinator
<i>Cannabis sativa</i>	Romania	3	
Total		89	

Outcome 2. Quantity and quality of data in EURISCO, including in situ and on-farm data, have been increased. Functionality of EURISCO meets users' expectations.

It can be considered that some progress took place in Phase IX.

EURISCO

The situation in EURISCO is much better compared to AEGIS.

The majority of the flax and hemp genetic resources accessions have already been included in EURISCO by the National Inventory Focal Points. Currently, EURISCO records 20 616 accessions of *Linum usitatissimum* L. from 30 countries. The largest part of *Linum* genetic resources are kept in genebanks in the Russian Federation, Romania, Germany, Czech Republic, Bulgaria and Ukraine (Table 2). Most of them are also recorded in the International Flax Data Base (IFDB). As *Cannabis*

sativa L. is concerned 1474 accessions from 17 countries are recorded in EURISCO. The largest collections are kept in Ukraine, Russian Federation, Romania and Hungary (Table 3).

Table 2. National Inventories of *Linum usitatissimum* L. recorded in EURISCO

Country	No of accessions in EURISCO
Albania	1
Armenia	6
Austria	59
Azerbaijan	9
Belgium	2
Bosnia and Herzegovina	1
Bulgaria	1461
Croatia	9
Czech Republic	2227
Estonia	5
Georgia	4
Germany	2321
Hungary	448
Ireland	3
Israel	44
Italy	396
Latvia	109
Lithuania	38
Netherlands	952
Nordic Countries	365
Poland	804
Portugal	229
Romania	3544
Russian Federation	5849
Slovakia	145
Slovenia	1
Spain	27
Switzerland	1
Ukraine	1435
United Kingdom	121
TOTAL	20216

Table 3. National Inventories of *Cannabis sativa* L. recorded in EURISCO

Country	No of accessions in EURISCO
Albania	1
Armenia	1
Austria	4
Bulgaria	35
Czech Republic	28
Germany	48
Hungary	121
Latvia	1
Nordic Countries	3
Poland	13
Romania	145
Russian Federation	467
Slovakia	27
Slovenia	3
Spain	7
Ukraine	568
United Kingdom	2
TOTAL	1474

1.2. Gaps or constraints identified

From my point of view as the chairman of the Fibre Crops (Flax and Hemp) WG, the main problem causing gaps and constraints can be found in membership and its rapid development. The Fibre Crops (Flax and Hemp) Working Group is quite young compared to other working groups (the first database was created in 2001) and it was established as one of the last ECPGR WG. At the beginning of its existence only few members participated in this WG (Table 4).

Table 4 Development of Fibre Crops (Flax and Hemp) WG members' base

Year	Number of members	Country	Notice
2006	14	ALB, AUT, BGR, CZE, GEO, DEU, HUN, ITA, LTU, NLD, POL, PRT, ROU, SVN	
2009	19	ALB, AUT-2, AZE, BLR-5, BIH-2, BGR, CZE, FRA, GEO, DEU-2, GRC, HUN-2, LVA-4, LTU-2, POL-4, PRT-4, ROU-3, RUS, SVN, SWE-3, SWZ-3, UKR	
2016	46	ALB, AUT-2, AZE, BLR-5, BIH-2, BGR, CZE, FRA, GEO, DEU-2, GRC, HUN-2, LVA-4, LTU-2, POL-4, PRT-4, ROU-3, RUS, SVN, SWE-3, SWZ-3, UKR	Genebank curator – 15 Crop scientist – 17 Information, documentation – 11 Breeder – 13 Policy and law – 8 Other expertise - 3
2017	48	ALB, AUT-2, AZE, BLR-5, BIH-2, BGR, CZE, FRA, GEO, DEU-2, GRC-3, HUN-2, LVA-4, LTU-2, POL-4, PRT-4, ROU-3, RUS, SVN, SWE-3, SWZ-3, UKR	Genebank curator – 15 Crop scientist – 18 Information, documentation – 4 Breeder – 15 Policy and law – 8 Other expertise - 3

However, during the period 2006–2017 the number of members extremely increased, but this did not help increasing the level of WG activities. On the contrary, the feedback between chairman and the members of WG has become very low. I do not know maybe two thirds of the members personally, I have never seen them and they do not know me. It is a very bad situation. The nomination of new members should be based on mutual discussion between chairman and National Coordinators and only the persons willing to deal actively in the WG should be nominated. It was stated also in chairmen meeting held in Ljubljana, 17–18 October 2017.

System of meetings

During the Fibre Crops (Flax and Hemp) WG existence (2006–2017), only two regular meetings were carried out. Other meetings where the activities of the FC (FH) WG were presented were held *ad hoc* as for example during the meetings of the ECPGR Networks or Documentation and Information WG (Table 5).

Table 5. Overview of FC (FH) WG past meetings

Meeting	Country	Town	Date	Remark
ECP/GR ad hoc meeting on Flax Genetic Resources	Czech Republic	Prague	7-8 December 2001	First mention to establish Fibre Crops (Flax and Hemp) WG
First regular FC(FH)WG meeting	The Netherlands	Wageningen	14-16 June 2006	
Occasional FC(FH)WG meeting	Germany	Quedlinburg	8–9 October 2009	In the framework of Sugar, Starch and Fibre Crops Network, Coordinating group meeting
Second regular FC(FH)WG meeting	Czech Republic	Šumperk – Velké Losiny	7-9 July 2010	First discussion about AEGIS

Ideally, regular WG meetings should be organized every four years. Therefore, the third meeting was to take place in 2014. Unfortunately, nothing was done due to absolute lack of interest from members. This is connected with the above-mentioned issue – many members in the group, they do not know each other, very poor feedback between the chairman and the members, practically zero reaction to ECPGR activities, hardly any reaction to the ECPGR calls for the projects (ECPGR Activity Grant Scheme – Phase IX), and so on.

A certain exception concerned discussion about the Flax and Hemp crop-specific standards for orthodox seeds in 2015-2016. Some feedback was received from Poland, Latvia and the remarks of the responsible curators were incorporated into the sheet sent by the ECPGR secretariat. Several genebanks agreed on the use of crop-specific standards for orthodox seeds, but the finalisation of the standards remained pending.

2. GRANT SCHEME ACTIVITIES

- **Grant Scheme proposals (submitted: 0)**

The WG chairman reacted to the first call for project proposals and all documentation was spread among the WG members. The members were invited to think of possible topics and aims which could be solved. Unfortunately, as previously stated, hardly ever feedback was received and when members answered, no common topic could be found on which to work together. The same situation repeated with other calls, and the result was that no project was submitted.

3. OTHER ACTIVITIES (CROSS-WORKING GROUP ACTIVITIES, LINKS WITH OTHER NETWORKS, PROJECTS AND INITIATIVES)

The chairman of Fibre Crops (Flax and Hemp WG is also active as the chairman of WG1 – Breeding and Plant Genetics Resources by ESCORENA FAO Flax and other Bast Plants Network (see below mentioned structure). There is a very strong link among some members who take part in both networks, ECPGR and ESCORENA.

ESCORENA FAO FLAX AND OTHER BAST PLANTS NETWORK - STRUCTURE OF THE NETWORK

The European Cooperative Research Network on Flax and other Bast Plants is one of the 20 active networks working within ESCORENA (European System of Cooperative Research Networks in Agriculture), a network supervised by the Food and Agriculture Organization of the United Nations, Regional Office for Europe and Central Asia (REU), Budapest.

The flax and other bast plants coordination centre is the Institute of Natural Fibres & Medicinal Plants (INF&MP), Poznań, Poland.

At present, the whole Network brings together 426 experts from 54 countries in the fields of research, economics, marketing and industry.

In the framework of this Network the magazine EUROFLAX NEWSLETTER is published (www.worldcat.org/title/euroflax-newsletter)

4. WORKING GROUP DOCUMENTS AND PUBLICATIONS

5. EXPECTED ADDITIONAL ACHIEVEMENTS AND FUTURE ACTIVITIES

The Fibre Crops (Flax and Hemp) WG needs to urgently address several topics, as follows:

- 1) AEGIS
- 2) EURISCO
- 3) Common projects
- 4) Members' base and its development
- 5) Changing members and chairman who reached a retirement age

Ad 1) AEGIS

The AEGIS collection creation can be considered as one of the Fibre Crops WG weaknesses and a large attention has to be devoted to it. It is necessary to encourage members, especially curators of genebanks to carry out the following steps in order to select the respective genetic resources for AEGIS collection.

- At first the members have to familiarize themselves with the respective documentation <http://www.aegis.cgiar.org/>
- To suggest Most Appropriate Accessions (MAAs) to the European collection. Because of lack of knowledge on hemp the attention concentrates first on flax
- The formal procedure for selecting the MAAs needs to be defined. This issue will be followed up by the Chair in consultation with all WG members, with genebank curators especially and also with the AEGIS Coordinator
- The development of a "List of selection criteria" for flax accessions has to be created. The experiences of other ECPGR WGs which are advanced in this process are recommended to be used
- Predominantly the accessions coming from the countries of own origin should be selected, accompanied with as much as possible passport as well as C&E descriptors filled in
- Since the MAA selection process will be time-consuming and involved costs cannot be supported by the institutes or the respective national genebanks, there will be need of financial participation of ECPGR/AEGIS. Participation should respect the principle of "input in kind" for the benefit of all
- All countries which are ready to contribute to MAAs selection and AEGIS collection creation have to sign the MoU for AEGIS.

Ad 2) EURISCO

The situation in EURISCO compared to AEGIS is much better. All accessions belonging to National inventories are included into EURISCO by the National Inventory Focal Points automatically. Given the fact that a lot of work was done for the International Flax Data Base (IFDB) creation, it is recommended to use the IFDB as one source for EURISCO complementation also.

The IFDB structure currently includes 39 passport descriptors of EURISCO + 7 characterization descriptors (stem length, flower: corolla size, flower: shape, petal colour, anther colour, 1000-seed weight, seed colour). Currently IFDB contains 11 141 items described by the MCPDs in agreement with EURISCO. I have critically to say the IFDB is still far from containing all European data referring to approximately 27 000 accessions. Efforts should be made to obtain the missing data. The IFDB is not searchable online yet, only downloadable as an Excel file (available from http://www.ecpgr.cgiar.org/Resources/germplasm_databases/list_of_germplasm_databases/crop_databases/crop_database_windows/flax.html).

Ad 3) Common projects

Initiation and coordination of the project ideas and proposals are one of the tasks of the WG chairman. However for these activities to be successful it is necessary to improve communication between the chair and interested WG members.

I recommend the following to get some improvement:

- All calls information should be spread among the WG members just after their launch
- Based on mutual discussion among the chair and WG members the most active members willing to cooperate will be chosen as potential partners in the project
- The principle an “expression of interest” should be kept
- WG priorities to be solved will be mutually discussed and selected (expression of interest)
- Based on my personal experience in Fibre Crops (Flax and Hemp) WG there is lack of money for complete finalization of passport as well as C&E descriptors in order to start with AEGIS collection creation
- After this pre-project discussion, the project will be prepared by the chair and project members and submitted to the Executive Committee (ExCo)
- Only one activity will be chosen in order not to exceed the budget of 15 000 EUR per year

Ad 4) Members’ base and its development

As previously stated the members’ base development has to be under the control of WG chair and he should discuss this item with the respective National Coordinators. Only members willing actively to cooperate should be selected and included into the group. In the case of Fibre Crops (Flax and Hemp) WG a very rapid increase of members was recorded in the period between 2006 and 2017 (from 14 to 48 members). Unfortunately the final result was: more members, less activity. A questionnaire covering the possibility to identify the “expression of member’s interest” will be prepared by the chairman of FCWG and spread among all members. Only the members willing to work actively in the WG should remain in the group.

Ad 5) Changing members and chairman who reached a retirement age

The activity of the members is closely connected with the active age. It depends on mutual discussion among the WG chair and the members who reached pensioner age whether they are willing further to continue actively the work in WG. The more important is in the case of chairman who is consider to be the promoter of activity group reacting on all events from the side of ECPGR. That is also my case when I am working more than two years as pensioner now and in this connection I would like to ask the ECPGR secretariat to think about my replacement by somebody younger and more active than me. I am willing to finish 2018 year in my position and starting 2019 somebody else could act as the new chairman of Fibre Crops (Flax and Hemp) WG further. I can continue this work as a pensioner for example from “home office” or from AGRITEC Ltd. where I am still working as full-time worker. But starting 2019 I think to reduce my full-time job. I can be helpful to ECPGR secretariat or Executive Committee to choose the useful candidate for this position, new Fibre Crops (Flax and Hemp) WG chairman.