Instituto Nacional de Investigação Agrária e Veterinária, I.P.

REPÚBLICA PORTUGUESA
AGRICULTURA, FLORESTAS E DESENVOLVIMENTO RURAL

Conservação de Recursos Genéticos Vegetais
40 anos
Banco Português de Germoplasma Vegetal

Conservation and Valorization Of Plant Genetic Resources

Ana Maria Barata, Carlos Garpar, Filomena Rocha, Violeta Lopes, Isabel Silva, Madalena Vaz

Banco Português de Germoplasma Vegetal
Instituto Nacional de Investigação Agrária e Veterinária

"Sementes nutritivas para um futuro sustentável" Rachel Pedder-Smith, 2004

A Conservação da Biodiversidade para a Alimentação e Agricultura é uma responsabilidade global dos povos

The conservation of the Biodiversity for Food and Agriculture is a global responsibility of People

WHERE WE ARE...

Headquarters

1 ***Campus* Oeiras**
Quinta do Marquês - Oeiras

Decentralized Centers

2 **Braga Laboratory**
Portuguese Plant Gene (BPGV)

3 **Vairão Laboratory**
Vila do Conde

4 **Alcobaça Experimental Station**

5 **Santarém Experimental Station**
Portuguese Animal Gene Bank
Quinta da Fonte Boa - Vale de Santarém

6 **Dois Portos Experimental Station**

7 **Elvas Experimental Station**

8 **Agricultural Chemical Laboratory**
Rebelo da Silva
Lisbon - Tapada da Ajuda

Experimental Farms

9 **Salvaterra Experimental Station**
Salvaterra de Magos

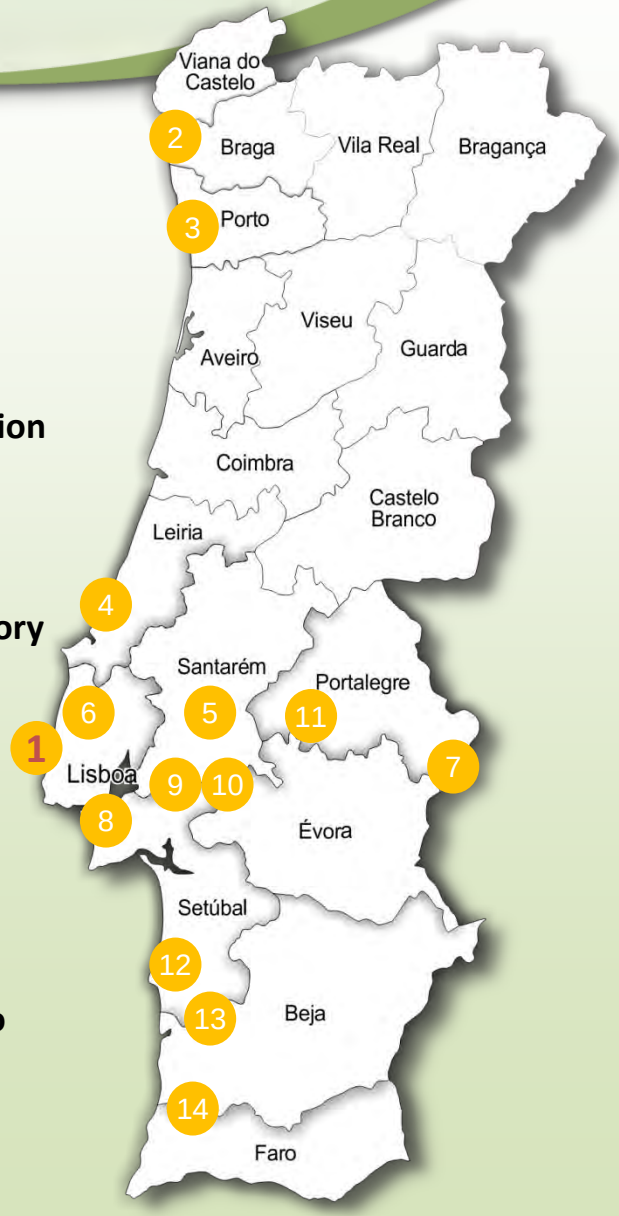
10 **António Teixeira Experimental Station**
Coruche

11 **Alter Genetic Laboratory**
Tapada do Arneiro - Coudelaria de Alter
Alter do Chão

12 **Monte dos Alhos**
S. Domingos da Serra

13 **Watered Cultures**
D. Manoel de Castello Branco
Alvalade do Sado

14 **Fataca**
Odemira

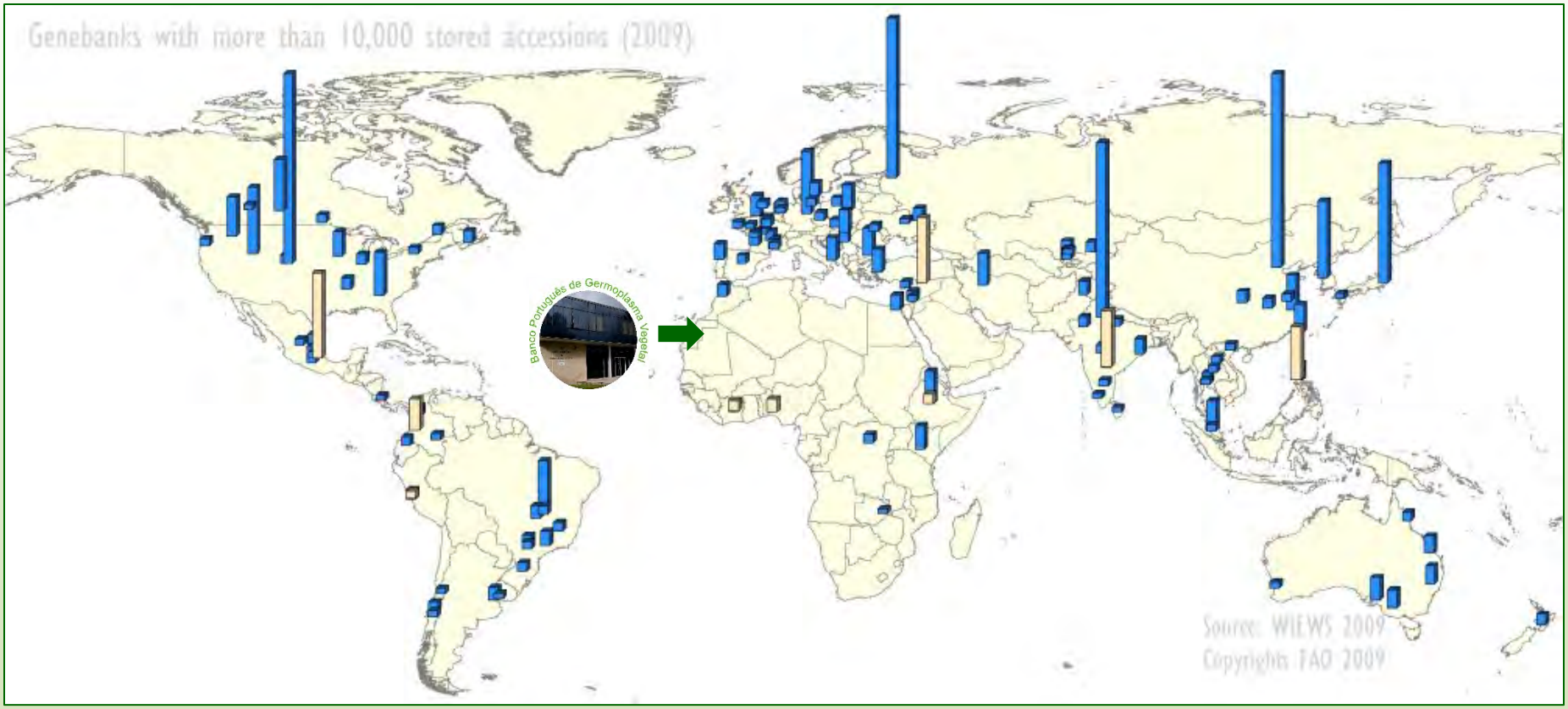


INIAV'S MISSION

- Scientific and Technical Support
- Laboratorial Services
- State Functions:
  - National Reference Laboratories (NRLs)
  - Genetic Resources:
    - Portuguese Plant Gene (BPGV)
    - Portuguese Animal Gene Bank (BPGA)
    - National Collections of Reference

Banco Português de Germoplasma Vegetal (BPGV)

Geoghraphical Distribution of Genebanks with more than 10000 accessions

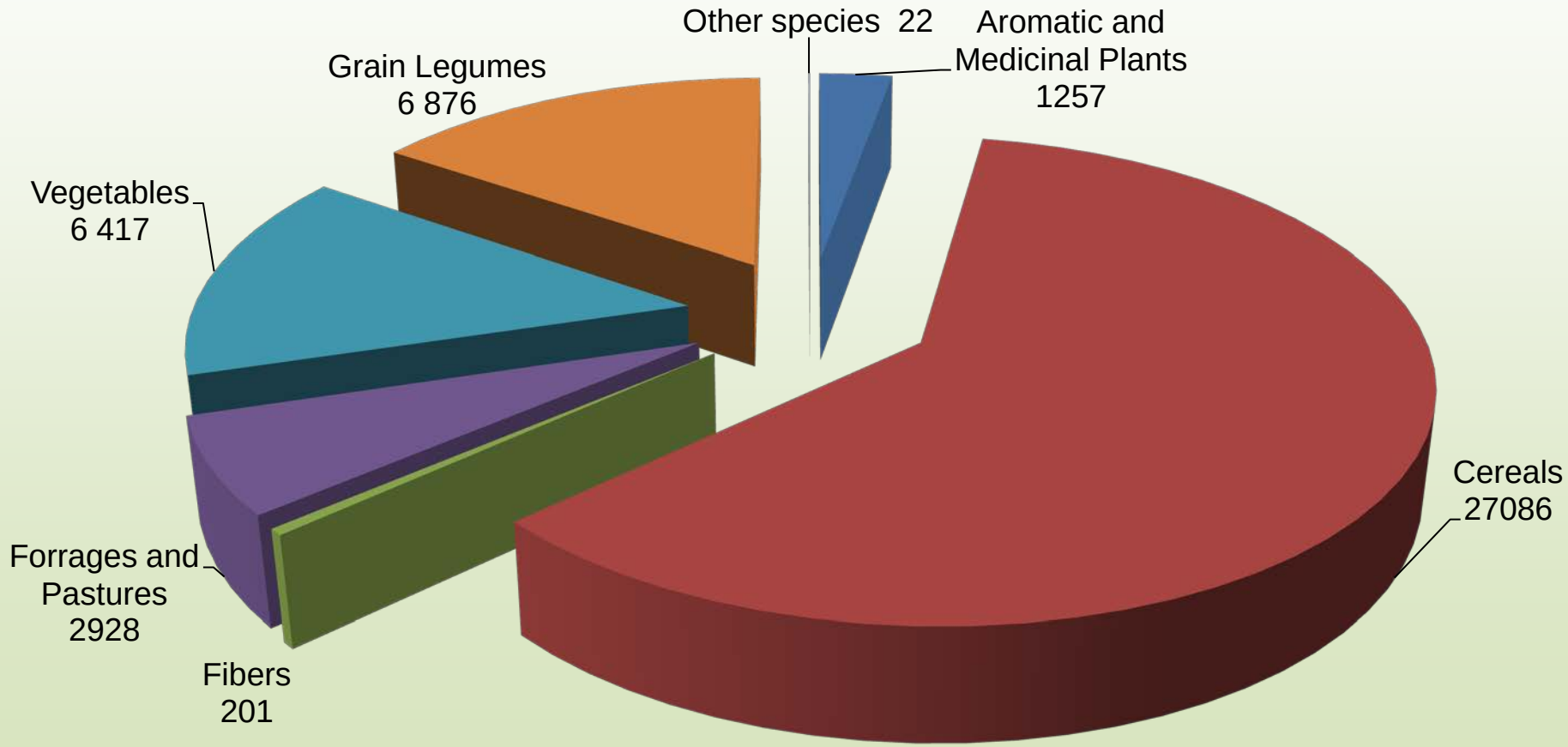


Source: WIEWS 2009; Country reports; USDA-GRIN 2009

Total collection conserved at BPGV

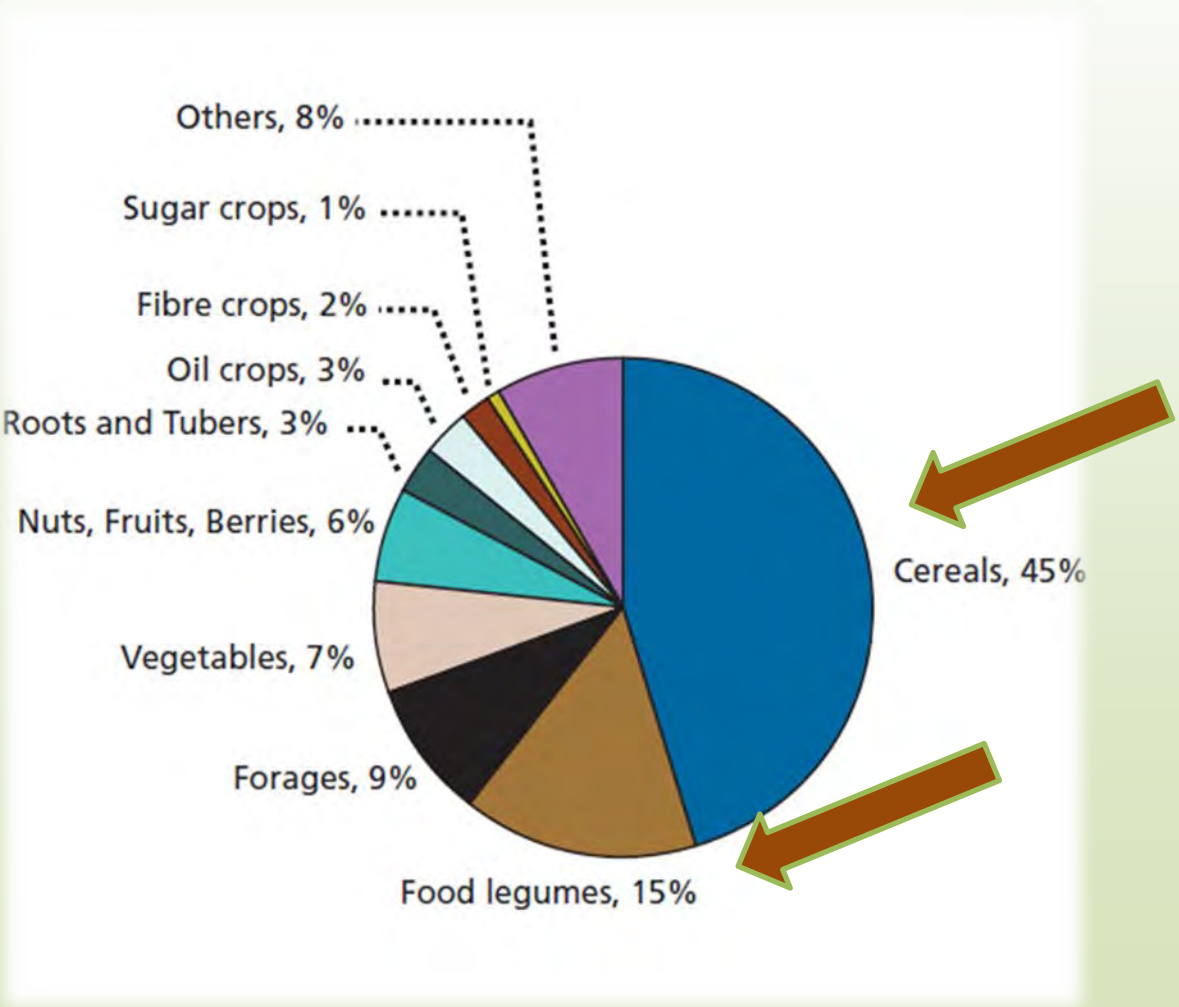
Group of species	Total
Aromatic and Medicinal Plants	1 257
Cereals	27 086
Fiber	201
Forrages and pastures	2 928
Vegetables	6 417
Grain legumes	6 876
Other species	22
Total	**44 752**

Total collection conserved at BPGV



Ex situ Conservation in the world

Collection contribution



Biodivesity
Conservation and Valorization

Strategies

- Collecting
- Conservation
- Evaluation
- Documentation
- Access

Collecting Missions

Cultivated species












CWR species












International Collecting Missions

Banco Português de Germoplasma Vegetal

Cold

Conservation

In vitro

field

Conservation in cold conditions

Medium Term Collection

Long Term Collection

Conservation in field collections

Humulus lupulus L.

Aromatic and Medicinal Plants

Mentha aquatica L.

Mentha pulegium L.

Thymus caespititius Brot.

Origanum vulgare L.

Mentha cervina L

Genus *Allium*

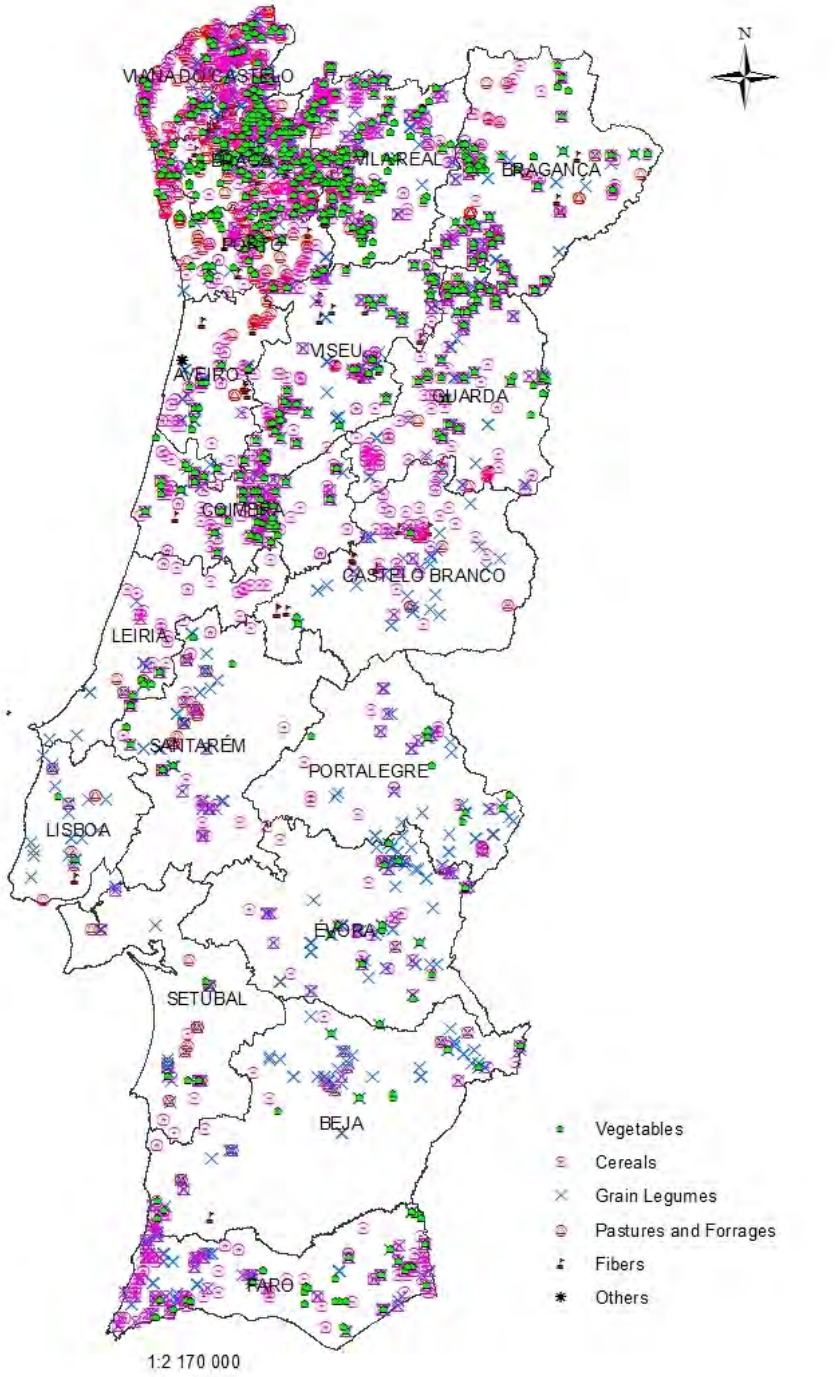
In vitro Conservation

Maize
Mediterranean Collection

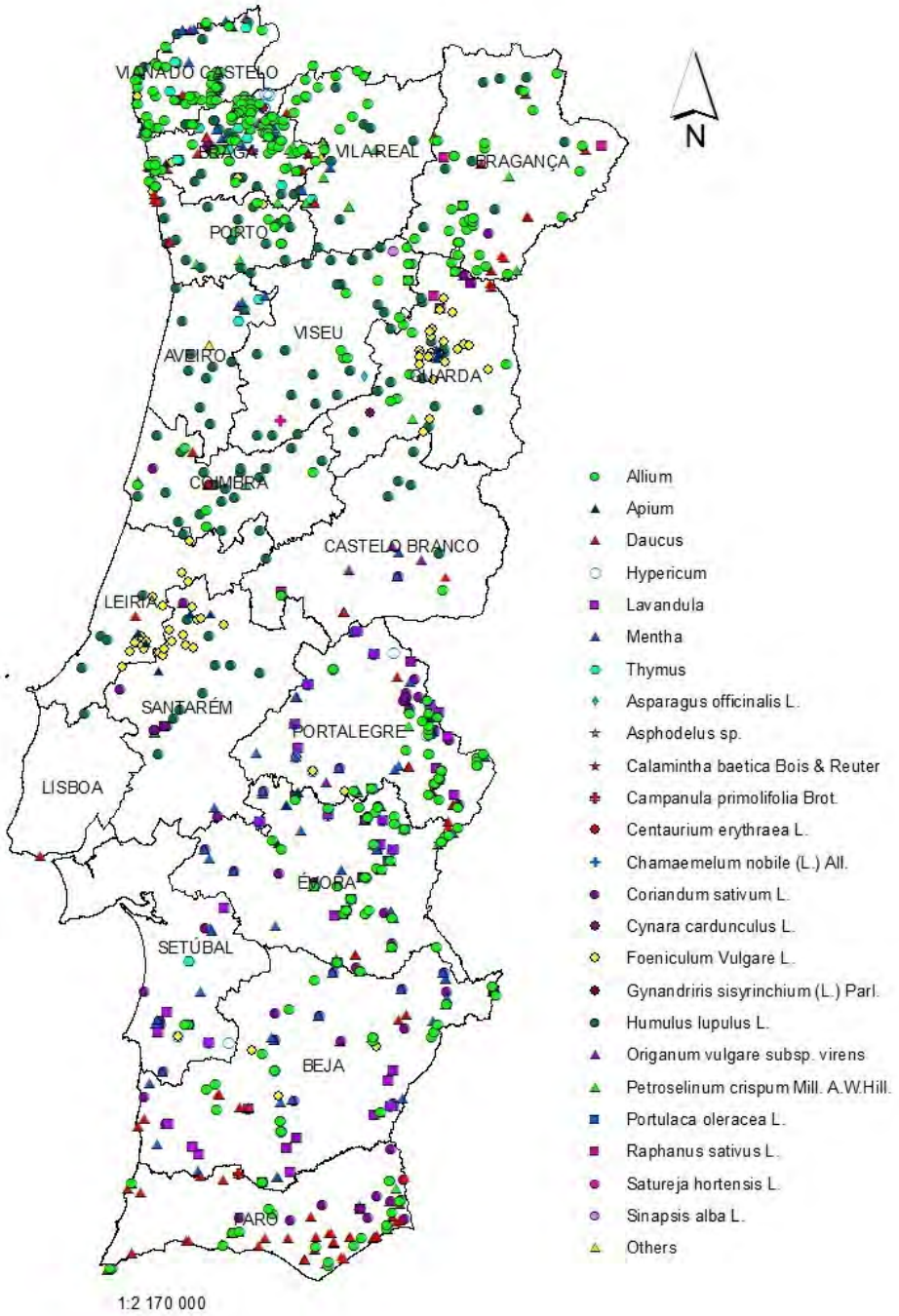
País	Nº acessos
França	16
Alemanha	8
Grécia	216
Itália	19
Marrocos	172
Portugal	1 690
Espanha	193
Yemem	43
Total	2 357

Maize European *Core Collection*

País	Nº acessos
França	16
Alemanha	8
Grécia	12
Itália	19
Portugal	17
Espanha	24
Total	96



National Collection conserved in BPGV



National Collection conserved in BPGV

Steps for cold conservation

Register

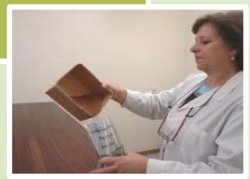
Cleaning

Germination Tests

Humidity Content

Drying

Packing



Seal

Morfological and Agronomic Caracterization

Phaseolus vulgaris L.

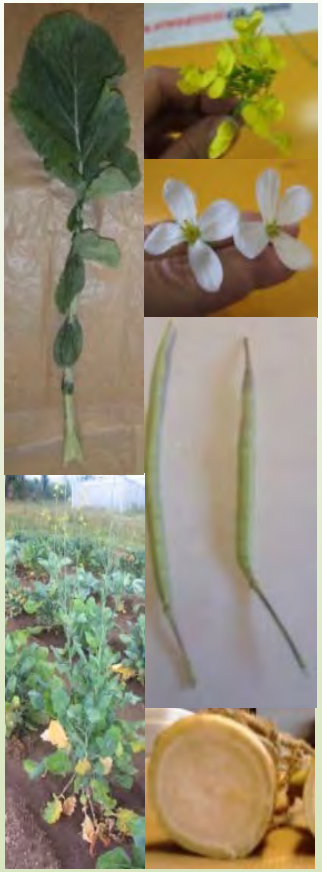
Capsicum spp.

Secale cereale L.

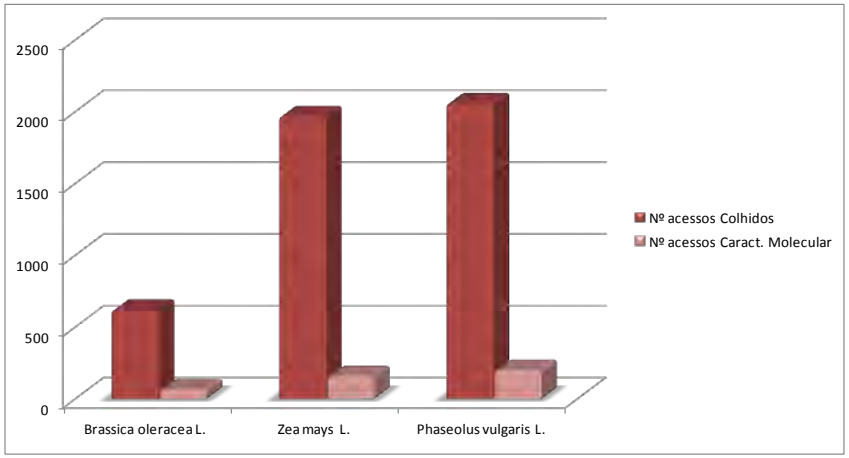
Solanum lycopersicum L.

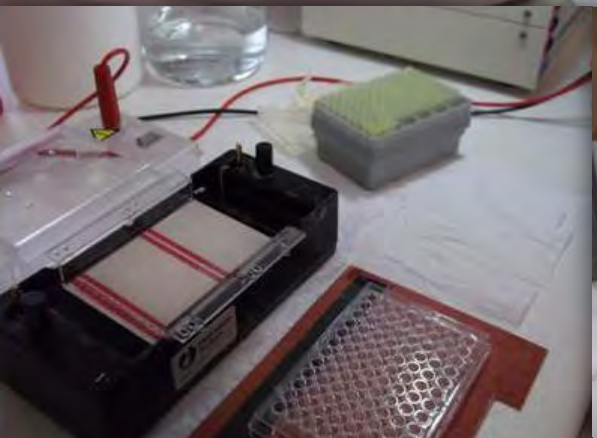
Zea mays L.

Brassicas spp.



Molecular Evaluation





Multiplication and Regeneration

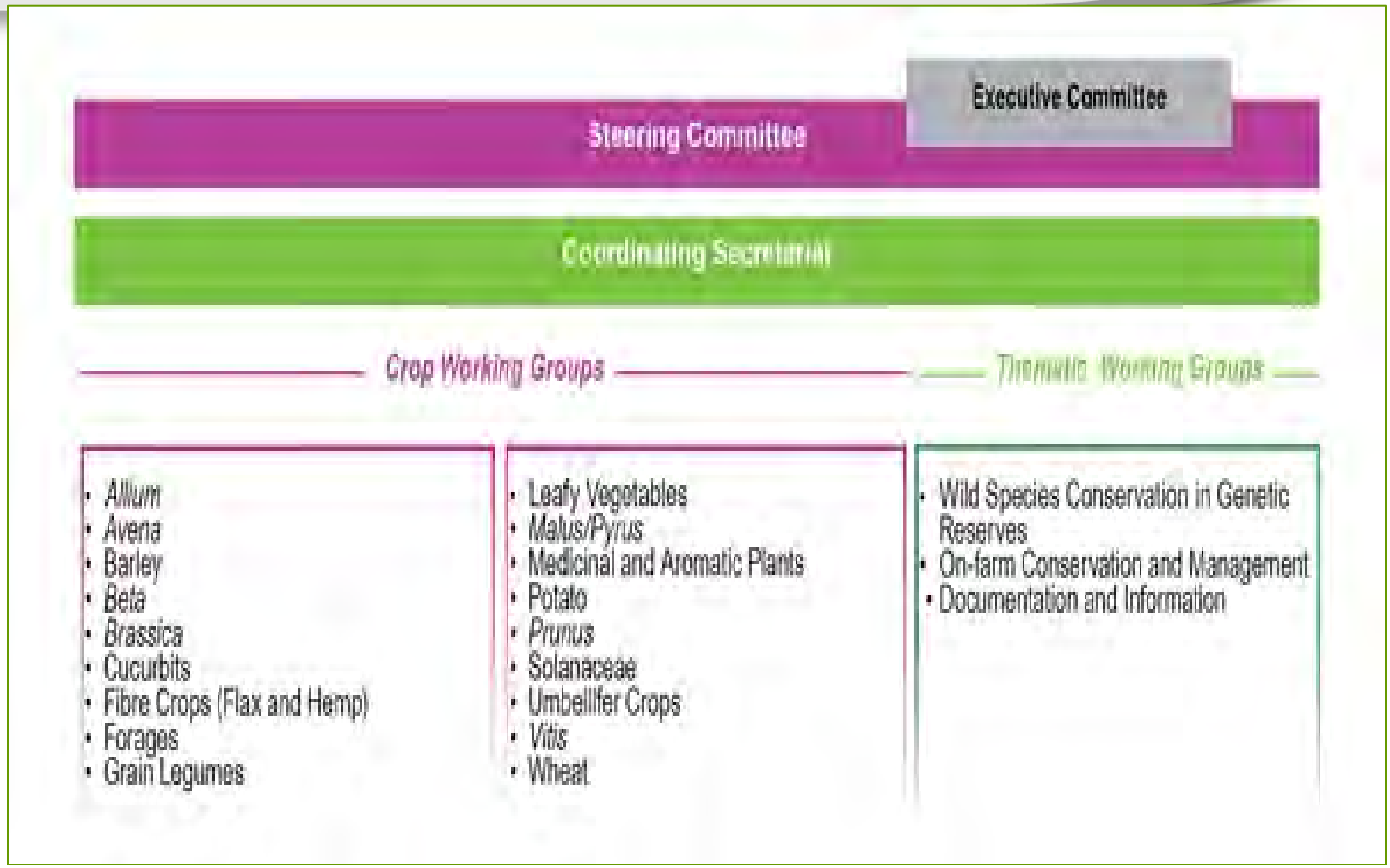
European Cooperative Programme for Plant Genetic Resources

ECP/GR

eurisco

Finding seeds for the future

iniav



European Network of National Inventories - 1.8 million of acessions

RECURSOS GENÉTICOS VEGETAIS-PLATAFORMA ON-LINE

No âmbito das estratégias definidas no **"Plano Nacional para os Recursos Genéticos Vegetais"**, o **Banco Português de Germoplasma Vegetal (BPGV)** disponibiliza o acesso à informação de conservação dos Recursos Genéticos Vegetais no País.

A informação está disponível no endereço **http://bpgv.iniav.pt**, estando suportado na plataforma internacional ***GRIN-Global*** enquanto ferramenta de organização, gestão e disponibilização de informação em Recursos Genéticos.

A informação agora disponibilizada resulta dum processo contínuo de atualização e incremento de conhecimento da conservação nacional de recursos genéticos vegetais.

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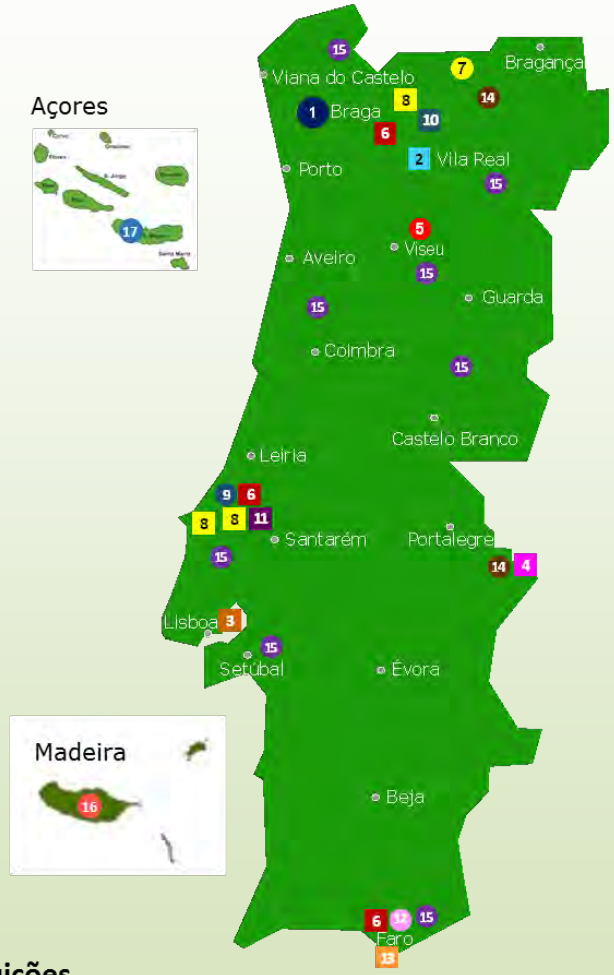
National Plan for Plant Genetic Resources for Food and Agriculture

2015

National Collections



Coleções

1 - Aromáticas e Medicinais; Cereais; Fibras; Forragens e Pastagens; Hortícolas; Leguminosas grão, Outras Espécies
2 - Cucurbitáceas
3 - *Lupinus*
4 - Fibras; Forragens e Pastagens; Leguminosas grão
5 - Macieiras – **Coleção de referência**
6 - Macieiras – **Coleção Regional**
7 - Pereiras – **Coleção de referência**
8 - Pereiras – **Coleção Regional**
9 - Cerejeiras, Ginjeiras – **Coleção de referência**
10 - Cerejeiras, Ginjeiras – **Coleção Regional**
11 - Ameixeiras – **Coleção Regional**
12 - Figueiras – **Coleção de referência**
13 - Amendoeira, Citrinos, Alfarrobeiras e Nespereiras, Romãzeiras, Pêros – **Coleção Regional**
14 - Oliveira
15 - Videira
16 - Aromáticas e Medicinais; Cereais; Fibras; Forragens e Pastagens; Hortícolas; Leguminosas grão, Outras Espécies
17 - *Leguminosas grão*

Instituições

1 Banco Português de Germoplasma Vegetal; 2 Universidade de Trás os Montes e Alto Douro; 3 Instituto Superior de Agronomia; 4 INIAV – Elvas; 5 DRAPC; 6 INIAV, DRAPN, DRAPALG; 7 DRAPN; 8 INIAV, DRAPN; 9 INIAV; 10 DRAPN; 11 INIAV; 12 DRAPALG; 13 DRAPALG; 14 INIAV, DRAPN; 15 INIAV, PORVID; 16 ISOPLEXIS, Madeira; 17 Universidade dos Açores

Valorization strategies

Maize brad ofArcos de Valdevez

Slow Food Foundation for Biodiversity

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The Ark of Taste

- About the project
  - History
  - International Ark Commission
  - National Ark Commissions
- Criteria for inclusion
- FAQs
- Nominate a product
- To download
- Contacts

Nominations from around the world

Ark of Taste

« Back to the Map

Category: Bread and Oven-baked Salted Products

Broa de milho

Portugal

The Northern regions of Portugal have never been suitable for wheat growing, due to their high altitude and poor soil. Corn represented a valid alternative to wheat here, and in some farms of the Arcos de Valdevez municipality corn is still used – as it once was - to make *broa de milho* bread.
To prepare the *broa de milho* four parts of corn and one of buckwheat must be stone milled, sifted and heaped into the wooden *masseira* (kneading trough). Water and salt is added and slowly and the corn flour is kneaded with a wooden spoon (this requires strong arms as it is very stiff). When the dough has a solid structure the *masseria* is closed and the dough is left for 30 minutes to rest. The buckwheat flour is then added together with a lump of starter, and after a short knead the dough is marked with the sign of the cross and left to rise for a couple of hours.
To bake the bread, a stone oven is fired up with pine and broom wood (occasionally, but hardly ever, also eucalyptus). When it reaches the right temperature, the loaves (which have been shaped in terracotta bowls) are turned onto the oven floor and baked. The oven iron door is sealed with two long strands of bread dough, and when they turn brown the loaves are done. The crust is brown-gold, and the bread smells of toasted corn, warm yeast and caramel. Inside the crumb is solid, crumbly and has a faint yellow-grey color. This old-fashioned heavyweight bread, typical of Arcos de Valdevez, perfectly couples with sardelle or fried stockfish.

Boarded in 2005

Valorization Strategies

Common bean Tarrestre

Press Area | Italian

Slow Food Foundation for Biodiversity

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Category: Vegetables

Tarrestre bean of Sierra - Soajo and Peneda

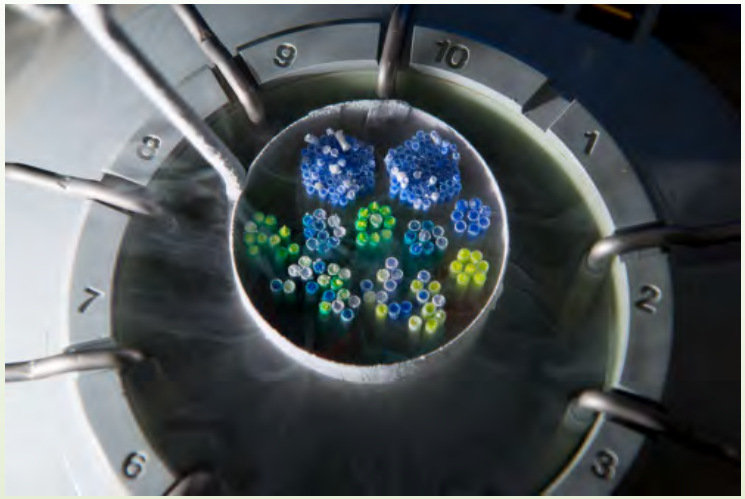
Portugal

Tarreste bean is a small, kidney-shaped bean with thin skin. It ranges between a great variety of colors, from beige (which is the predominant color) to white, yellow, chestnut, black and red. The beans can be smooth or striped. The plant is semi-climbing, with matures relatively early crop and has small tough pods.
After cooking, the bean remains intact and is creamy and velvety inside and has a strong flavor. It can be used in soups or in dishes served with pasta or rice. A selection of traditional recipes using the Tarreste bean can be found in attachment.
This bean is rich in fiber and unsaturated fatty acids, which can help to reduce the plasmatic level of cholesterol and triglycerides.
As recent studies on Tarreste bean report,"...The analysis of the results shows that the bean helps to reduce cholesterol and triglycerides levels... this is also due to the level of fiber and other properties", "Tarreste bean is different from other varieties because it has a lower cholesterol level and a high level of acetate and butyrate" and "Tarreste bean helps to increase butyrate levels, which could help to combat the oncogenesis. This interesting topic needs to be deeply analyzed in the future".
Tarreste bean is cultivated on terraced slopes, where work continues to be done manually as the particular landscape doesn't allow mechanized methods.
The first stage of production is preparation of the soil, which can be done manually; manure is mixed into the soil, which is then leveled and made ready for sowing seeds. Seeds are sown from April to the end of May, either by hand or with a sowing machine. Usually the bean is cultivated alongside corn, but it may be raised as a monocrop. Fertilizers added to the crop are organic and manure-based, and weeding is done by hand to avoid the use of herbicides. Harvest is carried out from August to September.
After being harvested, the beans are dried, shelled and quality controlled. After being cleaned, the beans are put into storage for one year. In order to conserve the beans, they are traditionally stored in wooded boxes along with bay and eucalyptus leaves. To further increase their life, the beans are refrigerated.
Tarrestre bean is produced in the area of Arcos de Valdez, mainly in the mountain areas of Sierra of Penada and of Soajo (hamlet of Sistelo, Cabreiro, Gavieira, Soajo, Gondoriz, Cabana Maior, Ermelo, Carralcova, Sá, Vilela, S. Cosme e S. Damião, Miranda, Rio Frio, Eiras, Sabadim, Mei, Padroso, Portela, Extremo, Alvora, Loureda, Rio Cabrão, Aboim das Choças e Rio de Moinhos).

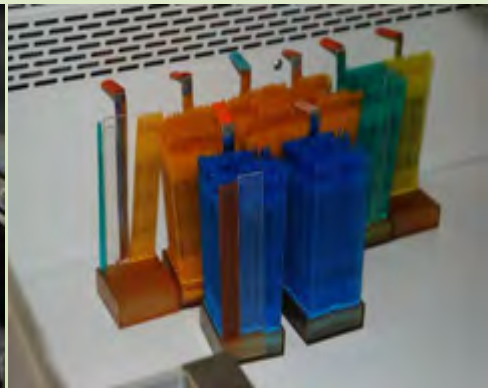
Animal Genetic Reources

in the North

Since 2015 and
in colaboration
with the National Federation of the
National Breed Associations,
located in S. Torcato Guimarães,
That we conserve bovine semen



6264 doses



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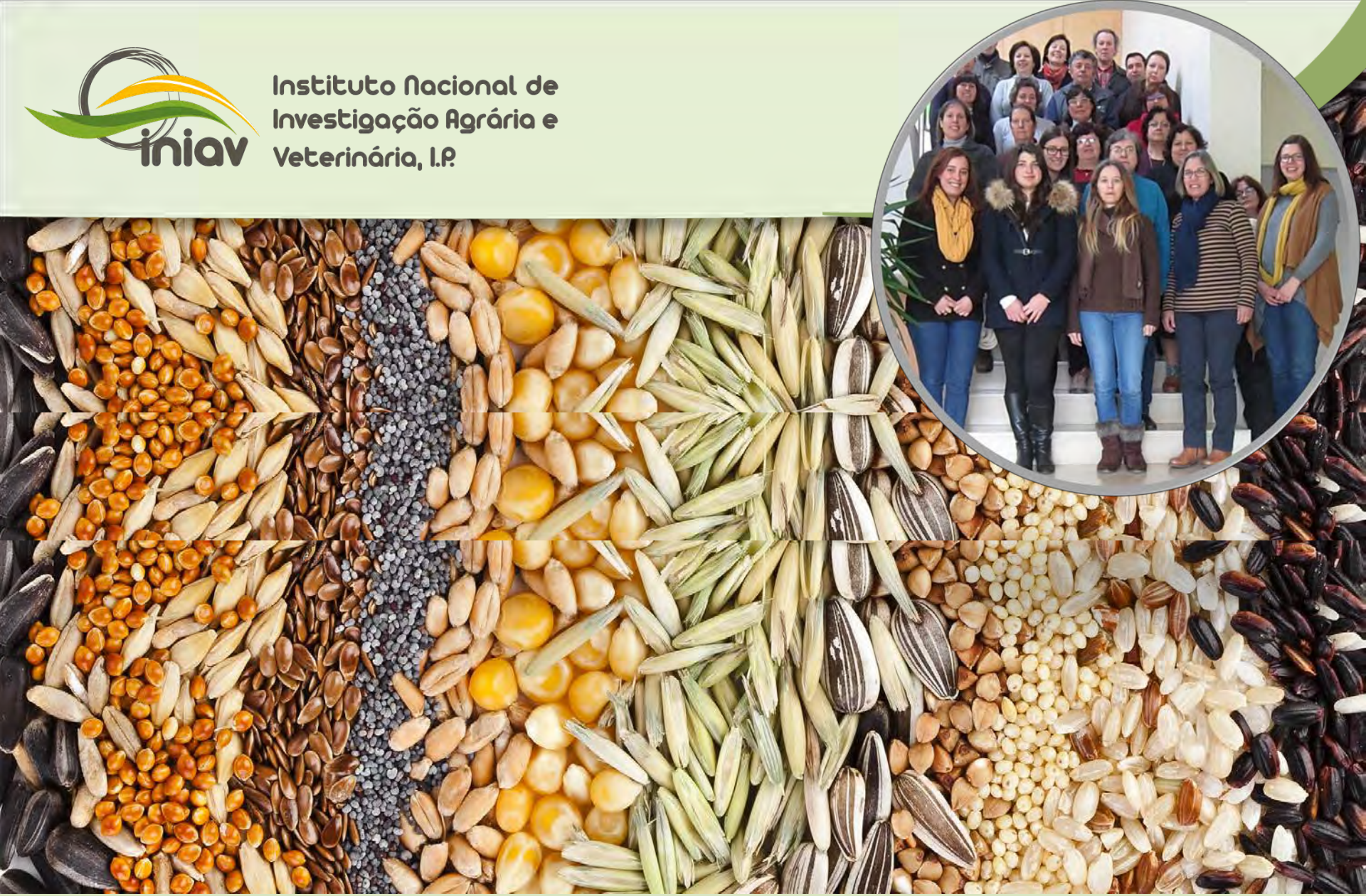

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AGRICULTURA, FLORESTAS E DESENVOLVIMENTO RURAL

Thank you very much for your kind attention