WP 4
Access

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Users

WP4 Access

Quarantine collections
Users

Questionnaire for users DL4.2

WP4 Access

Results describing the different general cases DL4.3

Quarantine collections

Questions for collections (with WP2 questionnaire) DL4.1

Guidelines for collections to improve access to resources DL4.4 (Joined to DL6.2)

Recommendations for info-portal and tools developed by WP5 and WP7 DL4.5
WP4 – Access
Analysis of results from both questionnaires: major points

44 answers from collections users
Biais toward users of bacterial collections

Who are the collection’s users?

- 55% Public/NPPO laboratory for plant pest diagnostics
- 39% Public research laboratory/institute
- 4% Private company
- 2% Private laboratory for plant pest diagnostics

Huge majority of public users
Probably representative of users of Quarantine material
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Analysis of results from both questionnaires: major points

Objective of the use of quarantine material?

- Development of diagnostic tests (ex: reference material)
- Positive controls to perform tests
- Trials (e.g. for the development of treatments, epidemiological studies...)
- Other scientific research
- Educational purposes
- Other

1 user, several needs
No real differences between types of organisms
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Analysis of results from both questionnaires: major points

Objective of the use of quarantine material?

Major needs:
- Positive control
- Development of diagnostics tests

Necessity for:
- Reliable and well characterised material
- Access to the whole diversity of the targeted organisms
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Analysis of results from both questionnaires: major points

Type of material needed

- Herbarium voucher specimens
- Specimens on slides
- Liquid-preserved specimens (in alcohol)
- Mounted specimens (pinned specimens) (dry specimens)
- Nucleic acids
- Inactivated cells
- Plant fragment containing the organism
- Living organisms (including freeze dried viable specimens)
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Analysis of results from both questionnaires: major points

**Type of material needed**

Correspond to the habits of the different communities
Need for nucleic acid is quite high
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Analysis of results from both questionnaires: major points

**Type of material needed**

<table>
<thead>
<tr>
<th></th>
<th>Users</th>
<th>Collections (results from WP2)</th>
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</thead>
<tbody>
<tr>
<td>Living material</td>
<td>45%</td>
<td>Living material</td>
</tr>
<tr>
<td>Dead material</td>
<td>21%</td>
<td>Dead material</td>
</tr>
<tr>
<td>DNA/RNA</td>
<td>34%</td>
<td>DNA/RNA</td>
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</tbody>
</table>

Distortion between users and collections answers
- Users only regroup quarantine users (collections replied generally)
- Users may be not aware that collections can provide nucleic acids

Demand for nucleic acids may rise in the future
(no subjected to quarantine regulations, except for Dual-Use organisms)
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Analysis of results from both questionnaires: major points

**Difficulties to have access to the material**

- **16%** YES for all or most organisms
- **36%** YES only for some organisms
- **48%** NO

Majority of users have access to the needed material. BUT can be difficult in some cases.
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Analysis of results from both questionnaires: major points

Difficulties to have access to the material

Situation variable following type of organisms.

Easier for bacteria. Where several well organised collections exist.

Insects: when doubt the specimens are sent to experts. Strength (exchanges) and weakness (when experts retire)
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Analysis of results from both questionnaires : major points

What are these difficulties?

- Unavailability of material (41%)
- Difficulty to identify contacts/No web access (30%)
- Restriction due to plant health or other regulation (18%)
- Cost to purchase biological material (9%)
- Others (2%)

Situation equivalent for all organisms (except bacteria where the restrictions due to regulations are the biggest problem).

2 major problems:
- Unavailability of material (incomplete collections)
- Visibility of collections
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Analysis of results from both questionnaires: major points

Sources of supply

- **National / international reference collection (formalised collection)**: 18%
- **Internal research or working collection (informal collection)**: 25%
- **Informal exchanges with experts from other laboratories/institutes**: 33%
- **Informal exchanges between scientists**: 24%
- **Direct field sampling**: 25%

Situation similar for all organisms (except bacteria where the main source of supply is the collections)

**Informal exchanges** are the main source of quarantine resources for users

Informal exchanges between scientists:

- **Strength**: diversity of sources, access to the resources, increase scientific exchanges

- **Weakness**:
  * Quality of characterisation and reliability of material?
  * Traceability of living material (crucial for quarantine organisms and in the light of Nagoya protocol)
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Analysis of results from both questionnaires: major points

How to facilitate access?

Visibility and clear contact person are essential to have access to the resources

Suggestions:
- Database/catalog to search among resources
- Web site for visibility
- More collections
- Funding

Web site including on-line catalogue: 33%
Direct contact: 30%
MTA (Material Transfer Agreement): 14%
Formalised ordering process: 12%
Guidance through the administrative process (LOA (Letter of Authorisation), quarantine agreement): 11%
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Analysis of results from both questionnaires: major points

Services offered by collection to help access to resources (results from WP2)

Does your institute/lab has an ordering process?

- Telephone or paper: 26%
- Online: 7%
- Not applicable: 9%
- No: 58%

Does your institute/lab has a MTA?

- Yes: 42%
- No: 58%

Majority of collections do not offer website (visibility) neither ordering process
Clear gap between users needs and collections offer

Deposit

Generally: users aware of the possibility, willing to do it and find this easy
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Analysis of results from both questionnaires – **Major conclusions**

No real specificity between type of users, type of uses, and type of organisms

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**Users**

- Resources for
  - Positive control
  - Development of diagnostics tests

  ➔

- Need reliable material
- Need access to the whole diversity of organisms

**Difficulties**

- Incomplete collections
- Lack of visibility from collections

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**Collections**

- Lack of visibility
- No formalised ordering process

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**Gap**

- Major source of supply = informal exchange.
- Reliability of material?
- Traceability of movements of material?
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Recommendations for collections
DL4.4 joined to DL6.2

Recommendations for collections (to be developed by Sylvia Bluemel WP6):

**Complete collections**
Duplicate at least reference material to enhance access
Enlarge collections to at least cover all quarantine organisms

**Visibility**
Web site with at least
List of strains
List of up-to-date contact

⇒ **Info-portal developed by WP5**

**Traceability**
Define clear and easy ordering process (order letter)
Implement MTA (Material Transfer Agreement)
Keep track of all movements of material
Order letter
CIRM-CFBP example

Your company
(letterhead)

Thank you to fill every blank

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<tr>
<th>Delivery Address</th>
<th>Invoice address</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>VAT number (only for EU member countries):</td>
</tr>
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</table>

purchase order number:

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<tbody>
<tr>
<td>Name:</td>
<td>CIRM-CFBP IRHS</td>
</tr>
<tr>
<td>Tel:</td>
<td>42, rue Georges Morel</td>
</tr>
<tr>
<td>Fax:</td>
<td>B.P. 60057</td>
</tr>
<tr>
<td>email:</td>
<td>49071 BEAUCOUZE Cedex</td>
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References

<table>
<thead>
<tr>
<th>N° CFBP</th>
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<tr>
<td>Ex. 3923</td>
<td>Ex. Brenneria alni</td>
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<td></td>
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</tbody>
</table>

Objectives of this strains order:

Research program(s) associated to this order:

Date **/**/****  Seal of the company  Authorized person name and signature
MTA
Core MTA proposed by ECCO
To be adapted

ECCO core Material Transfer Agreement
for the supply of samples of biological material from the public collection

Scope of agreement

This Agreement applies to the use, handling, distribution and any disposition of the MATERIAL supplied by the COLLECTION, and addresses the identified key points

- Traceability
- Fair and Equitable Benefit Sharing
- Intellectual Property Rights
- Quality
- Safety and Security

Definitions

a. The COLLECTION – acronym and address of the Collection/BRC supplying the material.

b. AGREEMENT: This document.

c. RECIPIENT: The party to whom the COLLECTION sends the MATERIAL. In case this is not the END-USER but an INTERMEDIARY, this INTERMEDIARY agrees (i) to forward to the END-USER the present MTA and the MATERIAL in unchanged form and quantity as received from the COLLECTION, and (ii) to use for this

d. END-USER: The party to which the MATERIAL is sent by the COLLECTION.

h. ORIGINAL MATERIAL: That which was originally supplied to the COLLECTION by the DEPOSITOR.

i. PROGENY: Unmodified descendant (e.g. sub-culture or replicate) from the ORIGINAL MATERIAL.

j. UNMODIFIED DERIVATIVES: Replicates or substances which constitute an unmodified functional subunit or product expressed by the MATERIAL, such as, but not limited to, purified or fractionated subsets of the MATERIAL, including expressed proteins or
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Recommendations for tools developed by WP5 and WP7
DL4.5

Info-portal should include

- Core common to all collections
  * Information about regulations (quarantine, Dual-Use, Nagoya protocol)
  * Search engine to retrieve the collections associated with the different type of organisms
  * Examples of ordering process and MTA

- Pages specific to individual collections:
  * Description of each collection including up-to-date contact and type of collection (private, work collection, public collection, country...)
  * Link toward the collection’s web-site and catalog when existing
  * Or a detailed list of holdings (at least excel sheet) (diversity, type of material, biological and geographical origin)
  * Mean to order (type order letter, MTA if used by the collection)
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Achievements

4.1: To design a questionnaire for collections
Questions added to WP2 questionnaire for collections
DL4.1 included in WP2 questionnaire for collections

4.2: To design a questionnaire to be transferred to the collections stakeholders
Questionnaire designed and displayed through collections
DL4.2 : Questionnaire displayed through EPPO web-site

4.3: To gather results from both questionnaires and assess what are the stakeholders needs
The analysis was finalised at the « experts meeting » in March 2015
DL4.3 available on Q-Collect share point

4.4: To produce guidelines
From the analysis of results from questionnaires, produce guidelines to help collections to meet the users needs and recommandations for the tools developped by WP5 and WP7

DL4.4: guidelines for collections
Joined to DL6.2 – To be finalised

DL4.5: recommendations for info-portal, web-site and tools developped by WP5 and WP7. – To be finalised
Thank you for your attention
Dual-Use organisms  (http://www.australiagroup.net)

Bacteria
Xanthomonas albineans
Xanthomonas axonopodis pv. citri (Xanthomonas campestris pv. citri A) [Xanthomonas campestris pv. citri]
Xanthomonas oryzae pv. oryzae (Pseudomonas campestris pv. oryzae)
Clavibacter michiganensis subsp. sepedonicus (Corynebacterium michiganensis subsp. sepedonicum or Corynebacterium sepedonicum)
Ralstonia solanacearum, race 3, biovar 2

Fungi
Colletotrichum kahawae (Colletotrichum coffeanum var. virulans)
Cochliobolus miyabeanus (Helminthosporium oryzae)
Microcyclus ulei (syn. Dothidella ulei)
Puccinia graminis ssp. graminis var. graminis / Puccinia graminis ssp. graminis var. stakmanii (Puccinia graminis [syn. Puccinia graminis f. sp. tritici])
Puccinia striiformis (syn. Puccinia glumarum)
Magnaporthe oryzae (Pyricularia oryzae)
Peronosclerospora philippinensis (Peronosclerospora sacchari)
Sclerophthora rayssiae var. zeae
Synchytrium endobioticum
Tilletia indica
Thecaphora solani

Viruses
Andean potato latent virus (Potato Andean latent tymovirus)
Potato spindle tuber viroid

+ : Nucleic acids or GMO containing the pathogenicity elements of these organisms

Movements inside Europe: like quarantine organisms
Outside Europe : more complex