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**ADDENDUM TO  
INFORMATION RETRIEVAL FROM UPOV DATABASES USING NATIONAL SYSTEMS**

*prepared by the Office of the Union*

*Disclaimer: this document does not represent UPOV policies or guidance*

The Annex to this document contains a copy of a presentation on “Information retrieval from UPOV databases using national systems”, made by the Office of the Union at the thirty-fifth session of the Technical Working Party on Automation and Computer Programs (TWC).

[Annex follows]

INFORMATION RETRIEVAL FROM UPOV DATABASES USING NATIONAL SYSTEMS

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# INFORMATION RETRIEVAL FROM UPOV DATABASES

November 16, 2017



International Union for the Protection of New Varieties of Plants

## PREVIEW

- GENIE DB
- TG Template DB

## Current Use of UPOV databases

- Use of robots
  - Dense traffic
  - UPOV server crashing
- Manual input

## Web Services

- Machine to Machine communication
- Useful to exchange data with external systems based on a contract
- Contract:
  - Input format
  - Output format

## Restful services

- Input data included in the URL
- Output data: JSON format

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## Demonstration

- Use of free online converter
- Convert JSON format into CSV/Excel
- <http://www.convertcsv.com/json-to-csv.htm>

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## GENIE DB Web services

- Retrieve to most recently updated records of: UPOV codes; botanical names; and common names (see “UPOV Code List” below)
- Search for a record using keywords.
  - Upov Codes
  - Botanical names
  - Common names in different languages

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## UPOV Code List

- <https://webaccess.wipo.int/genie/upovcode/UpovCodeList>

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## UPOV Code Detail for a given keyword

- <https://webaccess.wipo.int/genie/upovcode/UpovCodeInfo/{keyword}>

UPOV

```
{
  "upovCodeList":
  [
    {
      "upovCode": "COPRI",
      "principalBotanicalName": "Coprinus",
      "otherBotanicalName": "Coprinus",
      "commonName": "",
      "cropSpecificForm": "1"
    },
    {
      "upovCode": "COPRI_COM",
      "principalBotanicalName": "Coprinus comatus mull ex fv",
      "otherBotanicalName": "Coprinus comatus mull ex fv",
      "commonName": ""
    }
  ],
  "responseCode": "1",
  "responseMsg": "SUCCESS"
}
```

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## PREVIEW

- GENIE DB
- TG Template DB

## UPOV TG web services

- Facilitate drafting of individual authorities' test guidelines
- Retrieve UPOV characteristics and their states of expression in all available languages using the UPOV TG web services.
- Given a TG code and a language code, it is possible to retrieve:
  - List of characteristics (Chapter 8)
  - List of Technical questionnaire characteristics (Chapter 10)

## List of Characteristics

- For example, in the case of Turnip (**TG code=37**), it is possible to retrieve the list of characteristics in English (**EN**) using:  
<https://www3.wipo.int/upovRestServices/upovCode/CharacteristicList?tgCode=37&languageCode=EN>

UPOV

```
responseCode: 1
message: "SUCCESS"
characteristicOrderList:
  0:
    characteristicOrder: 1
    name: "<p style=\<cursor: auto;\>Ploidy</p>\n"
  1:
    characteristicOrder: 2
    name: "<p style=\<cursor: auto;\>Leaf: attitude</p>\n"
  2:
    characteristicOrder: 3
    name: "<p style=\<cursor: auto;\>Leaf: reflexing of top</p>\n"
  3:
    characteristicOrder: 4
    name: "<p style=\<cursor: auto;\>Leaf: green color</p>\n"
  4:
    characteristicOrder: 5
    name: "<p style=\<cursor: auto;\>Leaf: type</p>\n"
  5:
    characteristicOrder: 6
    name: "<p style=\<cursor: auto;\><u style=\<cursor: auto;\>Lobed-leaf varieties only</u> Leaf: number of lobes</p>\n"
  6:
    characteristicOrder: 7
    name: "<p style=\<cursor: auto;\><u style=\<cursor: auto;\>Entire-leaf varieties only</u> Leaf: depth of incisions of blade base</p>\n"
  7:
    characteristicOrder: 8
    name: "<p style=\<cursor: auto;\>Leaf: undulation of margin</p>\n"
  8:
    characteristicOrder: 9
    name: "<p style=\<cursor: auto;\>Leaf: dentation of margin</p>\n"
```

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## List of TQ Characteristics

- For example, in the case of Turnip (**TG code=37**), it is possible to retrieve the list of TQ characteristics in English (**EN**) using:  
<https://www3.wipo.int/upovRestServices/upoVCode/TQCharacteristicList?tgCode=37&languageCode=EN>

UPOV

```
responseCode:      1
message:           "SUCCESS"
tqCharacteristicsPojo:
  0:
    characteristicOrder: 0
    name:                "<p style=\"cursor: auto;\">Ploidy</p>\n"
  1:
    characteristicOrder: 1
    name:                "<p style=\"cursor: auto;\">Leaf: green color</p>\n"
  2:
    characteristicOrder: 2
    name:                "<p style=\"cursor: auto;\">Leaf: type</p>\n"
  3:
    characteristicOrder: 3
    name:                "<p style=\"cursor: auto;\">Leaf: length</p>\n"
  4:
    characteristicOrder: 4
    name:                "<p style=\"cursor: auto;\">Root: position in soil</p>\n"
  5:
    characteristicOrder: 5
    name:                "<p style=\"cursor: auto;\">Root: thick cork layer around skin</p>\n"
  6:
    characteristicOrder: 6
    name:                "<p style=\"cursor: auto;\">Root: color of skin above soil</p>\n"
  7:
    characteristicOrder: 7
    name:                "<p style=\"cursor: auto;\">Root: color of flesh</p>\n"
```

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## List of States of Expression

- For example, in the case of Turnip (**TG** **code=37**), it is possible to retrieve the list of states of expression in English (**EN**) for the first characteristic using:
- <https://www3.wipo.int/upovRestServices/upovCode/SOEList?tgCode=37&languageCode=EN&characteristicsOrder=1>

UPOV

```
responseCode: 1
message: "SUCCESS"
soeList:
  0:
    soeValue: "diploid"
    soeNote: 2
  1:
    soeValue: "tetraploid"
    soeNote: 4
```

UPOV

## List of States of Expression of a TQ characteristic

- For example, in the case of Turnip (**TG code=37**), it is possible to retrieve the list of states of expression in English (**EN**) for the first TQ characteristic using:
- <https://www3.wipo.int/upovRestServices/upovCode/TQSOEList?tgCode=37&languageCode=EN&SequenceNumber=1>

UPOV

```
responseCode: 1
message: "SUCCESS"
soeList:
  0:
    soeValue: "above middle"
    soeNote: 3
  1:
    soeValue: "at middle"
    soeNote: 5
  2:
    soeValue: "below middle"
    soeNote: 7
```

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