Crops, Descriptors, & Observations

NordGen Webinar Series
Session 6 – April 17, 2024

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Sessions

Session	Topic	Lecture/Demo	QA
1	Introduction / Overview	05 Dec. 2023	12 Dec. 2023
2	Creating Ancillary (Related) Records and Standards	10 Jan. 2024	17 Jan. 2024
3	GG requirements for Establishing Crops, Traits, and Coded Values in GG	24 Jan. 2024	31 Jan. 2024
4	How GG crop tables interrelate	06 Mar. 2024	13 Mar. 2024
5	Recording Observation records in GG	20 Mar. 2024	27 Mar. 2024
6	**Using GG's features to search on and report on the data**	**17 Apr. 2024**	24 Apr. 2024
7	Review of Crops and Descriptors	01 May. 2024	08 May. 2024
8	NordGen's Crop Methods and Projects Mapping and Start-Up (Teached by NordGen)	15 May. 2024	

Today

Using GG to search on and report the data – Session 6

- o Review / Questions?
- o Searching in the CT / ST
- o Trait Wizard
- o Searching in the PW
  - ▪ Descriptors
  - ▪ Observations
- o PW Reports

- o Writing SQL queries

CT: Set up (Crop or Trait) Lists

Trait Titles (review)

All trait should have corresponding
English Titles and Descriptions

Visual clue that
Title is missing

Trait Wizard

- Optional to CT – must be installed on PC
- Good for *adding/editing* traits, codes and their respective titles and descriptions
- Attachments – not recommended (yet)
- Not fully documented

Searching on the PW

- Descriptors section
- But also Observations on Results

Reports (on PW)

Must be logged in
(only staff accounts can access this report)

Select a report using either the list of all reports, or find by category.

| All Reports | Reports by Category | Reset Reports |

List of all reports

Crop Traits and Codes ▼

Information in the crop trait and crop trait code dataviews related to crop descriptors.

Name	Value
Crop_Name	ELDERBERRY

SQL

List Traits for a Crop
SELECT crop.name AS Crop, ct.coded_name
FROM   crop
     JOIN crop_trait ct
          ON crop.crop_id = ct.crop_id

/* remove the following two lines to see all traits; as is,
there must be observations recorded for the trait */
     JOIN crop_trait_observation cto
          ON ct.crop_trait_id = cto.crop_trait_id

/* Remove comments and edit red text for a specific crop:
WHERE crop.name = '**Alfalfa**'
*/
GROUP BY crop.name, ct.coded_name
ORDER BY crop.name, ct.coded_name

```sql
SELECT crop.name AS Crop, ct.coded_name
FROM   crop
    JOIN crop_trait ct
        ON crop.crop_id = ct.crop_id

/* remove the following two lines to see all traits; as is,
there must be observations recorded for the trait */
    JOIN crop_trait_observation cto
        ON ct.crop_trait_id = cto.crop_trait_id

/* Remove comments and edit red text for a specific crop:
WHERE crop.name = 'Alfalfa'
*/
GROUP  BY crop.name, ct.coded_name
ORDER  BY crop.name, ct.coded_name
```

SQL Tips

- Use the Search Tool to start
- Add a line in the beginning of the search text: --dumpsql
- Use the online SQL references

--dumpsql example

SQL tip

SQL Is picky
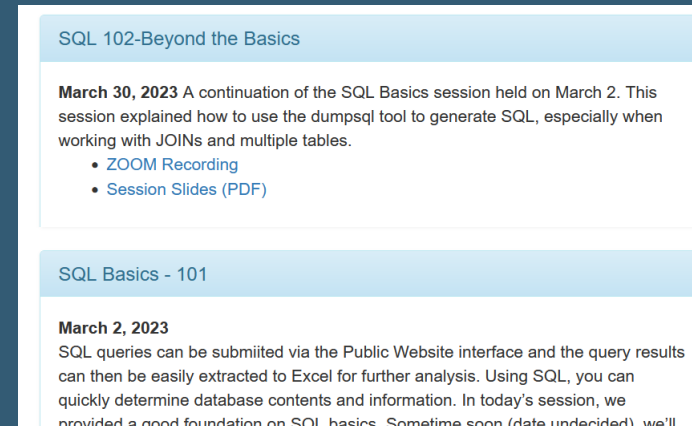
'inventory'

Only select queries are allowed

SQL Error: Unclosed quotation mark after the character string 'inventory' order by table_name, ordinal_position'. Incorrect syntax near 'inventory' order by table_name, ordinal_position'.

```
Information_schema
SELECT table_name, column_name, data_type,
character_maximum_length
FROM information_schema.columns
/* to see all tables, omit the WHERE clause */
WHERE table_name = 'inventory'
```

Save SQL

References On GG Project Site

- Two online Q &A's on SQL on GG Training page

SQL 102-Beyond the Basics

March 30, 2023 A continuation of the SQL Basics session held on March 2. This session explained how to use the dumpsql tool to generate SQL, especially when working with JOINs and multiple tables.
- ZOOM Recording
- Session Slides (PDF)

SQL Basics - 101

March 2, 2023
SQL queries can be submiited via the Public Website interface and the query results can then be easily extracted to Excel for further analysis. Using SQL, you can quickly determine database contents and information. In today's session, we provided a good foundation on SQL basics. Sometime soon (date undecided), we'll

- Guides and Excel maps online at https://www.grin-global.org/sql_examples.htm

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GRIN-Global   About GRIN-Global   GG Sites   Release Notes   Documentation

Library: SQL for the Public Website

Homework

Prepare an Excel workbook w/ several spreadsheet tabs:

- Traits (Descriptors)
- Codes for some traits

Other References

- USDA's Descriptors on GG: https://npgsweb.ars-grin.gov/gringlobal/descriptors

- Refer to http://rrginc.com/gg_training/ for links to the webinar's presentations (PDFs) and other links