

Problelematic Traits Discussion

Sweetpotato Breeders Meeting 2018,
Nairobi, Kenya

Ted Carey, CIP

SWEETPOTATO ACTION FOR SECURITY AND HEALTH IN AFRICA



Traits for evaluation/selection



- Trait, method, scale
- Croponontology.org (planteome.org)
- 206 traits described in crop ontology
 - Crop descriptors, breeding traits, different programs have different traits, and may change over time
- Need for curation and additional traits
- Traits linked to Sweetpotatobase and HIDAP



Sweet Potato Ontology

Ontology curators

- Reinhard Simon, Integrated IT & Computational Research (IITCR) leader, CIP

Scientists

- Vilma Hualla Mamani, Research assistant (IITCR), CIP
- Raúl Eyzaguirre, CIP
- Raúl Cordova, CIP
- Robert O. M. Mwanga, NARO
- Genoveva Rossel, CIP
- Wolfgang J. Gruneberg, CIP
- Vilma Hualla Mamani
- Jorge Espinoza
- Maria Andrade
- Dieudonne Harahagazwe, Crop Ecophysiologicalist and Modeler, CIP-SSA
- Harrison Dapaah
- Sammy Agili
- Harrison Dapaah
- Felistus P. Ndingo-Chipungu
- Sreekanth Attaluri
- Regina Kapinga
- Tinh Nguyen
- Xie Kalyung
- Koko Tjintokohadi
- Ted Carey
- Jan Low
- Genoveva Rossel

Crop Lead Center



Partners



CGIAR research program



CO_331

[Add New Terms](#)

[API](#)

[Help](#)

[Agtrials](#)

[Annotation Tool](#)

[Register](#)

[Login](#)

Traits, methods and scales

[DOWNLOAD](#)

[SHOW OBSOLETE TERMS](#)

English



- [-] Sweet Potato traits
 - [+] Abiotic stress trait [is_a](#)
 - [+] Agronomic trait [is_a](#)
 - [+] Biochemical trait [is_a](#)
 - [+] Biotic stress trait [is_a](#)
 - [+] Morphological trait [is_a](#)
 - [+] Quality trait [is_a](#)

Ter

[SoyBase Soybean Trait Ontology](#) 678 terms

[MAXGLYCINE](#)



SoyBase soybean trait ontology

[Soybean 90 variables](#)

[HAGRAMA](#)



Soybean Trait Dictionary in template v5 - IITA - July 2015

[Sugar Kelp trait](#) 46 variables

[KELPMASTER](#)



Sugar Kelp trait ontology

[Sweet Potato](#) 206 variables

[RSIMON](#)



Sweet Potato Trait Dictionary in template v5 - CIP - June 2016

[Vitis](#) 273 variables

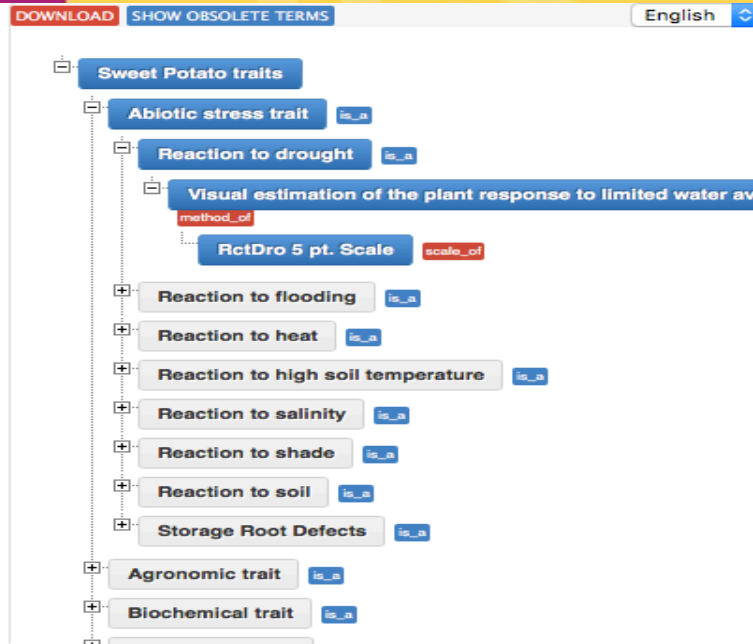
[ERIC_DUCHÉNE](#)



Grape Ontology including OIV and biodiversity descriptors. INRA July 2017

Continuous need for curation

e.g., Reaction to drought (MCPD trait)



Variables

RnDrt_Et_1to9

RctDro 5 pt. Scale

Permalink

General

0 Comments

Identifier [CO_331:0000582](#)

Category 1 Very low

Category 3 Low

Category 5 Intermediate

Category 7 High

Category 9 Very High

Scale class Ordinal

Scale name RctDro 5 pt. Scale

created_at Mon Jun 06 12:09:23 UTC 2016

name RctDro 5 pt. Scale

Continuous need for curation

e.g., Commercial/marketable root yield

DOWNLOAD SHOW OBSOLETE TERMS English

- Sweet Potato traits
 - Abiotic stress trait is_a
 - Agronomic trait is_a
 - Average commercial root weight is_a
 - Estimated marketable yield per hectare - Method method_of
 - t/ha scale_of
 - Biomass yield is_a
 - Foliage total yield is_a
 - Growing season is_a
 - Harvest index is_a
 - Marketable root yield is_a
 - Estimated marketable yield per hectare - Method method_of
 - t/ha scale_of
 - Number of commercial storage roots is_a

Variables

RtACRW_Cp_g

t/ha Permalink Gen

Identifier CO_331:0000320

Decimal places 2.0

Lower limit 0.0

Scale class Continuous

Scale name t/ha

created_at Mon Jun 06 12:08:28 UTC 2016

name t/ha

[Add a new attribute](#)

Continuous need for curation

e.g., Maltose content

Traits, methods and scales

DOWNLOAD SHOW OBSOLETE TERMS English

- Morphological trait is_a
- Quality trait is_a
 - Beta-carotene content is_a
 - Calcium content is_a
 - Fiber content is_a
 - Fiber cooked is_a
 - Fructose content is_a
 - Glucose content is_a
 - Iron content is_a
 - Magnesium content is_a
 - Maltose content is_a
 - Maltose content - Method method_of
 - % scale_of
 - Overall appearance of cooked sample is_a
 - Overall taste of cooked sample is_a

Variables

Term information

Maltose content - Method Permalink General

Identifier [CO_331:0000128](#)

Method class Measurement

Method description Miller, Gail Lorenz (1959)

Method name Maltose content - Method

Method reference CloneSelector2015:Def_07

created_at Mon Jun 06 12:08:55 UTC 2016

name Maltose content - Method

Need to add or fix a trait?



Sweetpotatobase.org at the bottom of the trait page

Help

Is the trait you are looking for not here?

Please submit your new trait [using the trait submission form](#).

To speed up addition of your trait into the database please contact us using the [Contact Form](#).

If you are a keenly interested stakeholder, sign up for the user group at [github/plant-trait-ontology](https://github.com/plant-trait-ontology)

This does require a community of practice!