

Example of mappings and application in data search

Phenotype data file in breeding, stored in repositories

Germplasm ID	GW	PH	GCOL	GY
24530	5	1	2	35
85432	8	3	4	48
78452	4	2	4	43
56093	8	2	1	50



Grain Weight



Plant height



Grain Color



Grain yield

Metadata

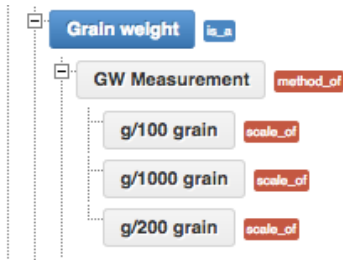
CO_321:0000025

Semantic for data integration

Trait Ontology

Wheat

Crop Ontology



Term ID	TO:0000162
Term	<u>grain quality trait</u>
Definition	A fruit quality trait (TO:0002728) that is the commercial and /or economical value of the grain (i.e. fruit (PO:0009001)), or its overall improvement.
Ontology source	plant_trait_ontology
Synonyms	n/a
Alt ID	TO:0000588
Bioentities	retrieve bioentities annotated to this term for this filter set

CO_321:0000025

(automated)
mapping

GACS

Marie-Angélique
Laporte, Bioversity



grain
 ↪ cereal products
 ↳ brewers grains, cereal grains, cereals, feed grains
 ⦿ *grains*
 ⦿ products
 ⦿ حب (ar), 谷类 (zh), **zrno** (cs), **graan** (nl), **Grain** (fr), **Korn** (de), अनाज/दाना (hi), **gabonaszem** (hu), **Granella** (it), 穀物 (ja), 낱알 (ko), မြေထဲမှယူသော (lo), *Bijian* (ms), غله (fa), **Ziarno** (pl), **grãos** (pt), *Grão* (pt), зерно (ru), **zrno** (sk), **granos** (es), เมล็ดธัญพืช (th), *taneliler* (tr), *hububat* (tr)
<http://id.agrisemantics.org/gacs/C1825>

Drill-down Browsing of Ontologies

Filter tree by bioentity type

Total bioentities: 1553993

No current user filters.

Your search is pinned to these filters

- document_category: bioentity

Taxon

Type

- biological_process 1500396
- cellular_component 1144813
- molecular_function 1566709
- plant anatomical entity 59429
- plant experimental condition 8445
- plant structure development stage 87590
- plant trait 17634
 - biochemical trait 1418
 - biological process trait 1893
 - other miscellaneous trait 0
 - plant growth and development trait 8141
 - plant morphology trait 12733
 - fruit quality trait 1979
 - brown rice protein 414
 - exocarp thickness 0
 - fruit color uniformity 0
 - fruit crispness 3
 - fruit firmness 1
 - fruit flavor trait 12
 - fruit hollowness 0
 - fruit ripening trait 1292
 - fruit senescing quality trait 29
 - fruit surface area 0
 - fruit tenderness 0
 - grain quality trait 141
 - bran percentage 6
 - cracked grain percentage 14
 - crushed grain percentage 2
 - grain density 80
 - grain thickness 0
 - rice grain thickness 0
 - rice GrThk_Av_mm 0

Term ID	CO_320:0000020
Term	rice grain thickness
Definition	The weight of a sample of whole grains including the hull
Ontology	RiceTrait
source	
Synonyms	GrThk, GRTH
Alt ID	n/a
Bioentities	retrieve bioentities annotated to this term for this filter set

1. Crop Ontology Trait and standard variable within Trait Ontology

2. Pop-up window providing additional information on the Crop Ontology Trait

Wheat Grain weight search in AGRIS



Effects of all straw returned to the field on grain number and grain weight at different spikelets and grain positions in winter wheat [may.2011]

Qu Huijuan, Anhui Agricultural University; Li Jincai, Anhui Agricultural University; Shen Xueshan, Anhui Agricultural University

Abstract:

Objective The objectives of this study were to research the change of gain number and grain weight of wheat with spikelet and grain position in main stem and tiller spike under the condition of straw returned to the field. Method A location field experiment was conducted from 2008 to 2010, single maize straw returned to the field, single wheat straw returned to the field, wheat and maize straw ...



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Genotypic variation in linear rate of grain growth and contribution of stem reserves to grain yield in wheat [2008]

Ehdaie, B.; Alloush, G.A.; Waines, J.G.

Abstract:

Grain growth in wheat depends on current photosynthesis and stem water-soluble carbohydrates (WSC). In semiarid regions with terminal drought, grain filling in wheat crops may depend more on stem WSC content than on current assimilates. Reduction in grain yield under drought is attributed to shorter duration of linear grain growth despite increased contribution of stem reserves to grain yield. ...

Grain yield in Wheat trials in Agtrials

Name	Project	Location	Crop
Aberdeen-19apr2011-In-dry	Wheat - triticeae coordinated agricultural project	Aberdeen	Wheat
Aberdeen-19apr2011-nn-dry	Wheat - triticeae coordinated agricultural project	Aberdeen	Wheat
Aberdeen-19apr2011-nn-irri	Wheat - triticeae coordinated agricultural project	Aberdeen	Wheat
Bozeman, Mt, 13 May11	Wheat - triticeae coordinated agricultural project	BOZEMAN, MT, USA	Wheat
Bozeman, Mt, 14may09-dry	Wheat - triticeae coordinated agricultural project	BOZEMAN, MT, USA	Wheat
Bozeman, Mt, 14may09-irri	Wheat - triticeae coordinated agricultural project	BOZEMAN, MT, USA	Wheat
Davis, Ca, 9nov10	Wheat - triticeae coordinated agricultural project	DAVIS, CA, USA	Wheat
Havre, Mt, 22apr10	Wheat - triticeae coordinated agricultural project	HAVRE, MT, USA	Wheat
Horse Heaven, Wa, 23mar11	Wheat - triticeae coordinated agricultural project	HORSE HEAVEN, WA, USA	Wheat
Huntley, Mt, 12apr11	Wheat - triticeae coordinated agricultural project	HUNTLEY, MT, USA	Wheat