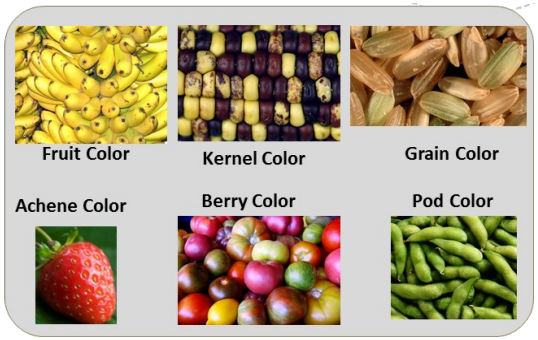
Diversity of data descriptions results in inconsistent nomenclature



The Planteome Project provides consistent terminology for all things plant biology related, from the molecular to environment levels.

Reference Ontologies for Plants

GRANULARITY	Environment Ontology (ENVO)			
	Plant Experimental Conditions Ontology (PECO)			
	Plant Taxonomy	NCBI	Plant Stress Ontology	Phenotypic Quality (PATO)	Biological Process (GO)
	Anatomy	Plant Anatomical Entity Plant Ontology (PO)		Plant Trait Ontology (TO) Crop Ontology (CO)	Plant Structure Development Stage (PO)
	Cell	Plant Cell (PO) Cell (CL)			
	Cellular Component	Cellular Component (GO)			
	Molecule	Molecular Entity (ChEBI, PR)		Molecular Function (GO)	Molecular Process (GO)

Key to Colors: Yellow & Orange: developed and maintained by Planteome. Blue: external reference ontologies

OSU Oregon State University

Crop Ontology for agricultural data

OBO Foundry

Goals of the Planteome Project:

- Develop and maintain a network of reference ontologies to link plant traits, phenotypes, gene expression, genomes and genetic diversity data across a wide range of plant species on a centralized platform
- Align reference ontologies with descriptors from species-specific vocabularies to link to breeding data (intersects on networks)
- Create mappings (links) to other ontologies and databases

Report bugs, request terms or download ontologies at https://github.com/Planteome

GLOBAL CORE BIODATA RESOURCE

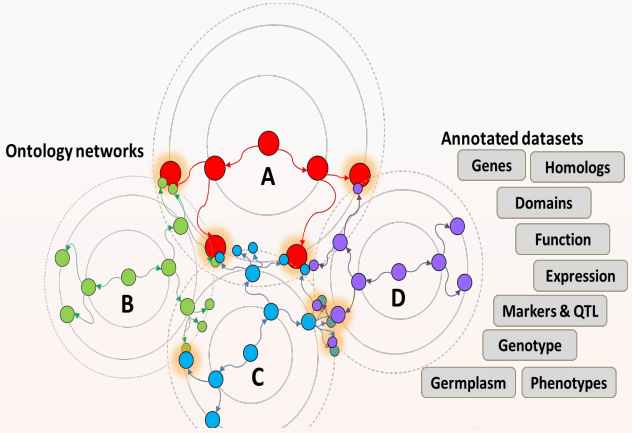
Planteome is recognized as a Global Core Biodata Resource

Funded by the National Science Foundation & USDA-ARS

Planteome

What is the Planteome Project?

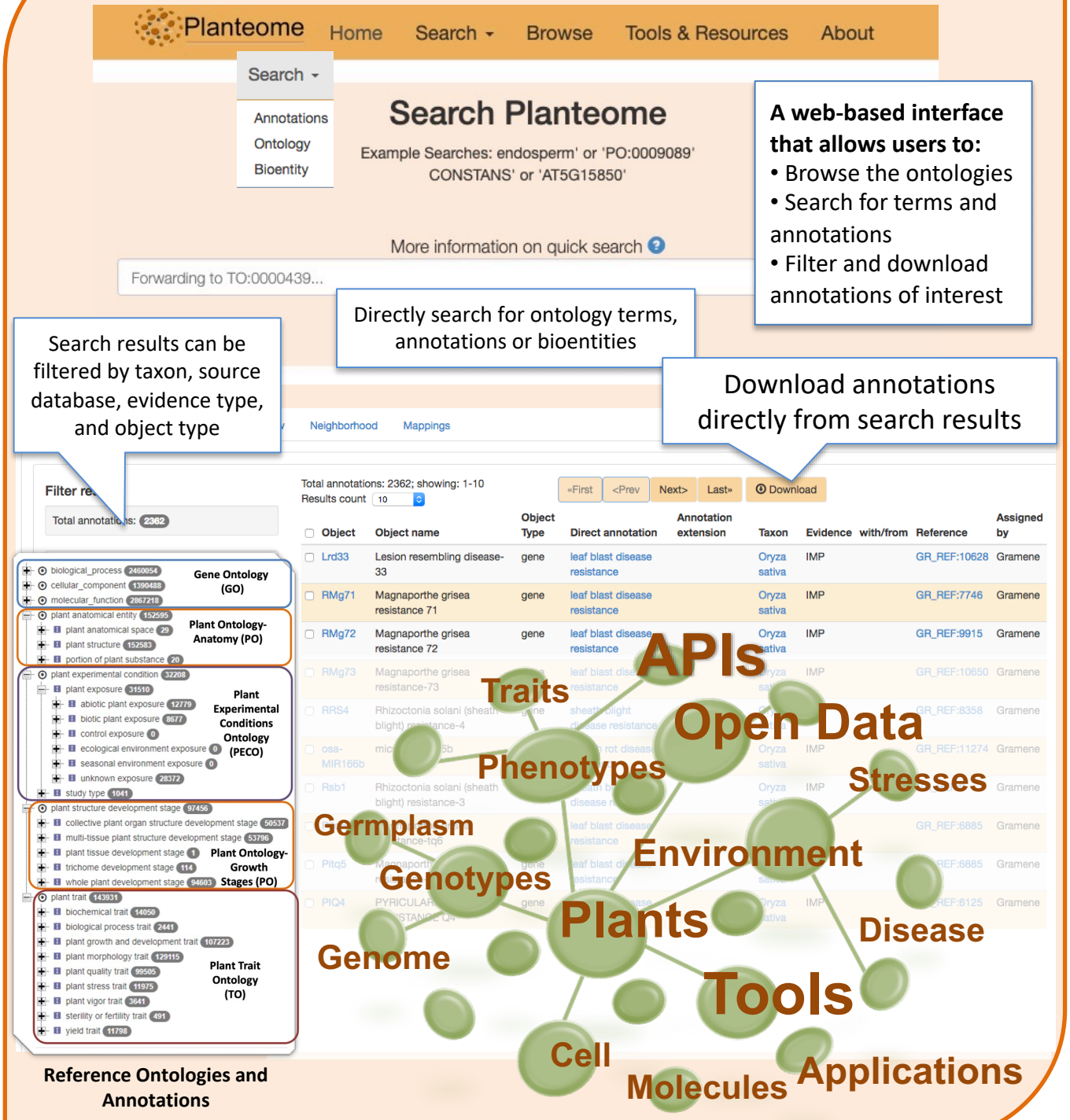
A suite of ontologies and plant genomics data from more than 85 plant taxa



A source for standard definitions reviewed by experts and links to annotations from plant genome databases

https://planteome.org

Navigating the Planteome website:



Reference Ontologies and Annotations

Using the Planteome

Hierarchical structure allows for taxon-specific annotation and comparisons across taxa.

You can ask questions such as:

- What genes are expressed that have an effect on plant height?
- Is there rice germplasm with known plant height characteristics?
- What traits have been characterized in lentil variety **REDCHIEF**?