The "Legume Federation" ("The Federated Plant Database Initiative for the Legumes") is an NSF project to foster data standards, distributed development, and comparative analysis, via gene families and shared phenotypes, to support research across the legume family – and to support robust agriculture for a world that is significantly legume-fed.

The goals of the Legume Federation include:
1) sharing knowledge, development, and data sets across all legume crops;
2) defining standards for data formats, metadata standards, Web service protocols, and ontology use;
3) establishing an open repository for data exchange; and
4) encouraging the use of common, open-source model organism database tools.

Clear standards and formats, with templates and tools for data collection and submission, will enable broader participation. Although a major focus of the project is on methods for distributed development, we emphasize that the fundamental mission is to enable improved agricultural productivity for this important group of crop plants by integrating genetic, genomic, and phenotypic data across species to enable identification of common molecular bases for important traits.

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GMOD software components

Tripal is a set of customizable Drupal modules for constructing biological websites.

Chado is a standardized database schema for storing biological data.

InterMine provides a set of web tools for browsing and searching genomic data across one or many species. Complex queries can be composed intuitively.

Project websites are using both JBrowse and GBrowse for genome browsing.

Gene families and tools

Families are based on and link to Phytozome families, but are legume-focused at LegumeInfo.

Map and trait data

Genetic maps are displayed using CMap. A next-generation map browser will be built as part of this project.

GBrowse and JBrowse viewers for each species... featuring synteny tracks to interlink homologous regions.

Public and private data repository at iPlant.