

NATIONAL TEMPERATE FORAGE LEGUME GERMPLASM COLLECTIONS

Forage legumes are those plant species traditionally used as animal feed. Alfalfa, red and white clover are familiar forage legumes. These species are unique in that they have the ability to supply nitrogen to the soil through a symbiotic relationship with nitrogen-fixing bacteria.

Forage legumes are used to improve soil tilth, prevent erosion, and even used to reclaim contaminated soils. Containing a rich source of phytoestrogens and nutrients they can increasingly be found in grocery stores in the form of sprouts, teas and natural medicinal preparations.

The U.S. alfalfa, medic and clover collections dates back to 1898. Currently there are over 12,000 gene bank accessions representing over 200 species from the genera *Medicago* and *Trifolium*. The collection contains old and new cultivars, primitive landraces, wild types and related wild species collected from around the world

We work to conserve this wealth of crop genetic diversity and make it freely available in small quantities to a wide range of users, such as scientists, plant breeders and farmers. Germplasm can be requested from the curator or by using the order form on the GRIN web site.

Learn about and request seed from the U.S. collections of alfalfa, medics and clover by using the USDA, ARS Germplasm Resources Information Network (GRIN).

QUICK REFERENCE

GRIN on the world wide web

(<http://www.ars-grin.gov/npgs>)

Search for collection information, request seed, download PC-GRIN

Request copy of PC-GRIN

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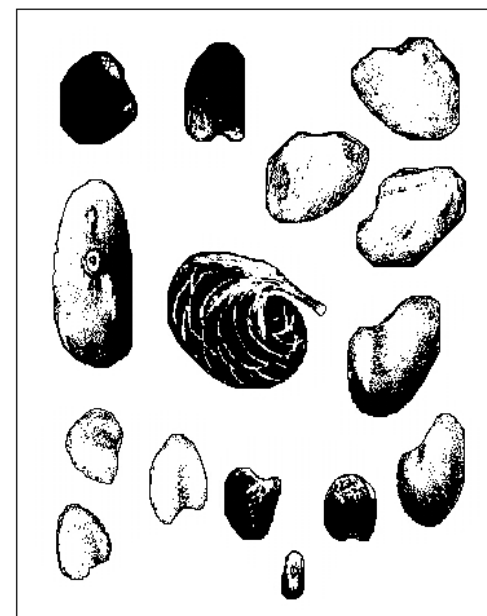
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Germplasm Resources Information Network (GRIN)

GERMPLASM COLLECTION USER GUIDE

Alfalfa, Medic and Clover



USING GRIN

Interested in finding out what is in the U.S. Forage Legume Collections? You are welcome to use the specialized database called GRIN (Germplasm Resources Information Network). Grin can be accessed at <http://ars-grin.gov/npgs>. You can also use pcGRIN, a stand-alone version of GRIN.

GRIN ON THE INTERNET

Important web site features

FAQs Check here if you don't know how to find an answer. Step-by-step instructions to common questions you might have using the **Search** Section of GRIN

Search GRIN

Accession queries History and descriptor data on individual accessions. Select material based on taxonomy, country of origin or other basic criteria.

Crop Science Registration/Plant Variety Protection queries Historic listing and current status of registered or protected cultivars, germplasm and breeding lines

Taxonomic queries Wide range of information at the taxonomy level,

including species citations, geographic range and special uses of species and links to other taxonomic databases

Research Crops and Descriptor/Evaluation Data

Queries Typing in the species or selecting either the Alfalfa, Medic or Clover Research Crop areas provides a form that allows you to select accessions based upon observation and evaluation data.

Request Seed Learn how to obtain seed from the National Plant Germplasm System. Request seed from the forage legume collections using the web site form

The GRIN Forage Legume database was upgraded in 1997. New data standards were established. Historic documents were reviewed. Latitude and longitude values were estimated for approximately 6000 collection sites

pcGRIN

pcGRIN is a DOS-based version of GRIN

It's worth obtaining the new version. The program can be requested from the GRIN Database Management Unit or downloaded from the web site. Individual PcGRIN CROP datasets of Alfalfa (2mb) and Clover (1mb) can be downloaded as

zipped files. Note the date adjacent to the file. This indicates when the data was extracted from the main database.

The CROP datasets include accession information such as history and taxonomy, and observation and characterization data that have been collected on individual accessions. Data can be exported to use in spreadsheets.

The GRIN Forage Legume Data Dictionary describes the data standards established during the 1997 revision. The GRIN Data Dictionary provides an overview of the entire GRIN database structure. Find both at <http://www.ars-grin.gov/npgs/aboutgrin.html>

UNDERSTANDING THE DATA IN GRIN

Many different individuals have collected accessions over many years. In the past less emphasis was placed on documenting acquisition specifics. Because of this, you will notice a large difference in the amount of historic data that are available for various accessions. Also, not all accessions have been evaluated for every descriptor. If you have trouble obtaining information or selecting germplasm from GRIN, we're here to help you.