



# Beijing Agricultural Think Tank Platform

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# Organization Introduction

## ■ Beijing Academy of Agriculture and Forestry Sciences (BAAFS)

- Founded in 1958
- 14 professional research institutes
- 1100+ employees, 456 with PhD degree

## ■ Institute of Agricultural Information and Economics ( AIE )

AIE is a specialized research institute under BAAFS, it mainly carries out research and extension services in the fields of agricultural information resource, information technology, agricultural economic management, etc.



# Beijing Agricultural Think Tank Platform

The goal of this platform is to build a resource-rich, well-organized and functional agricultural science and technology knowledge service platform.

<http://www.agritk.ac.cn/>



The screenshot displays the Beijing Agricultural Think Tank Platform website. The header includes the platform name, a search bar, and navigation links. The main content area is divided into several sections:

- 国际科技资讯 (INTERNATIONAL):** Lists international agricultural science news with dates.
- 国内科技资讯 (DOMESTIC):** Lists domestic agricultural science news with dates.
- 政策扫描 (POLICY):** Lists policy updates related to agriculture.
- 国内观察 (DOMESTIC OBSERVATION):** Lists domestic observations and analyses.
- 数据中心 (DATA CENTER):** Contains several data visualizations:
  - 2017年全国涉农发明专利申请总量分布情况:** A map of China showing the distribution of agricultural patent applications by province in 2017.
  - 2017年发明专利申请人TOP10:** A bar chart showing the top 10 patent applicants in 2017, with the highest being 1027.
  - 涉农国家重点实验室:** A pie chart showing the distribution of agricultural key laboratories across different regions.
  - 涉农国家工程技术研究中心:** A pie chart showing the distribution of agricultural engineering technology research centers.
  - 涉农国家农业科技项目数量TOP10排名:** A bar chart showing the top 10 agricultural science and technology projects.
  - 国家科学技术奖农业领域获奖情况:** A bar chart showing the number of awards in the agricultural field.
  - 2008-2017年农业领域SCI论文发表趋势:** A line and bar chart showing the trend of SCI paper publications in the agricultural field from 2008 to 2017.
- 领域专题 (Special Topics):** A row of icons representing various agricultural topics like crop production, animal husbandry, and food safety.
- 智库名录 (Think Tank Directory):** A list of affiliated think tanks and institutions, including logos for Tsinghua University, M&K Company, and others.

# Agricultural Information Resources



At present, the platform has gathered more than 1 million pieces of agricultural information resources from China, other countries and a few international organizations.

- **Resource types** : literature, patents, news, policies, national plans, projects, achievements etc.
- **Agricultural theme** : seed industry, planting industry, animal husbandry, fishery and other categories.

- ◆ the resources is mainly in Chinese and English.
- ◆ Resource formats include text, PDF, numeric values, and so on.

# Data acquisition

- BAAFS Internal data
- Data from the government and academic associations
- The open data from the Internet
- Commercial database



research reports



# metadata and semantic

## ■ a good resource-sharing platform

Abundant in resources, authoritative and reliable, timely in update, standardized, good in continuity

## ■ The value of metadata and semantics

Data standardization, Data management, Data integration and sharing

Resource recommendation, Data association, Data discovery. etc



# MetaData

➤ A core metadata model of agriculture information resource dataset (DB11T836-2011) is established by fully considering the metadata contents necessary for data content, data display, data management, etc.

ICS 65.020.01  
B 07  
备案号: 32945-2012

# DB11

北京市地方标准

DB11/T 836—2011

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农业信息资源数据集核心元数据

Core metadata of agricultural information resource dataset

序号	中文名称	英文名称	标识	定义
1	数据集标识	dataset identification	datasetID	数据集的唯一标识
1.1	数据集代码	identifier	identifier	标识数据集的唯一代码
1.2	数据集中文名称	Chinese title	Chtitle	数据集的中文名称
1.3	数据集英文名称	English title	Entitle	数据集的英文名称
1.4	数据集别名	alias	alias	数据集的其他名称
2	主题	subject	subject	揭示数据集内容的词语或短语
2.1	主题词	subject words	subjectWords	描述数据集的专业主题词语
2.2	主题词表	thesaurus	thesaurus	主题词的来源, 一般是指专业或学科中的主题词表
2.3	自由关键词	keywords	keywords	由用户自由选取的描述数据集内容的词语
3	摘要	abstract	abstract	数据集的简要说明
4	目的	purpose	purpose	对开发该数据集目的的说明
5	类型	type	type	对数据集所属类型的说明

序号	中文名称	英文名称	标识	定义
6	数据量	size	size	数据集所包含数据量的说明
6.1	记录数	number of records	recordNumber	数据集所包含的记录数
6.2	存储量	memory size	memorySize	以数据集所占的物理存储空间表示的数据量
7	数据格式	data format	dataFormat	数据的格式说明
8	数据源	source	source	数据集中部分或全部数据的来源信息
9	数据集提供者	provider	provider	提供数据集的机构或个人
10	责任农业专家	experts	experts	负责数据集内容科学性审核的农业专家
11	更新频率	update frequency	frequency	描述数据集在多长的时间内更新一次
12	数据集时间	dataset date	datasetDate	与数据集的创建和修改事件相关的时间
12.1	创建时间	date of creation	creationDate	数据集内容的创建日期
12.2	最近修改时间	date of last modification	lastModified	数据集内容最近一次修改的日期
13	语种	language	language	数据集内容所采用的语种

# MetaData

- On the basis of common metadata, different databases extend and add their own unique metadata fields, so as to form the metadata standard of this database.
- In the end, we developed 12 types of metadata standards.

申请年	2019
预算经费	
直接经费	
实际资助机构	中华人
资助机构二级分类	
资助国家	中国
资助地区	
项目类别	国家重
项目申请领域分类	水资源
项目详情介绍的页面url	
项目负责人	
项目负责人所在国家	中国
项目负责人职称	
项目管理人员	

## Data process





- Science Technology Knowledge Organization System(STKOS)  
is a Super Vocabulary of Science & Technology, initiated by the National Science and Technology Library, and jointly built by Chinese Academy of Sciences(CAS), Institute of Scientific and Technical Information of China (ISTIC), Chinese Academy of Medical Sciences (CAMS), Chinese Academy of agricultural Sciences (CAAS).
- STKOS has collected 241,530 agricultural terms and 92,869 concepts.
- STKOS is used in platform data retrieval and Keyword extraction.

# Challenges



- Limited agricultural information resources
- Variety of data formats
- Poor metadata quality
- Metadata attribute error
- Low level of automation and artificial intelligence
- Multilingualism

# Future plan



- Carry out extensive cooperation with more organizations to realize mutual sharing of agricultural information resources
- Strengthen the research and application of AI technology
- Try to achieve multi - language unified retrieval and intelligent recommendation based on AGROVOC
- Strengthen the research and application of semantic knowledge organization technology and look forward to cooperating with our peers.



**Thank you**

**<http://www.agritk.ac.cn/>**

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