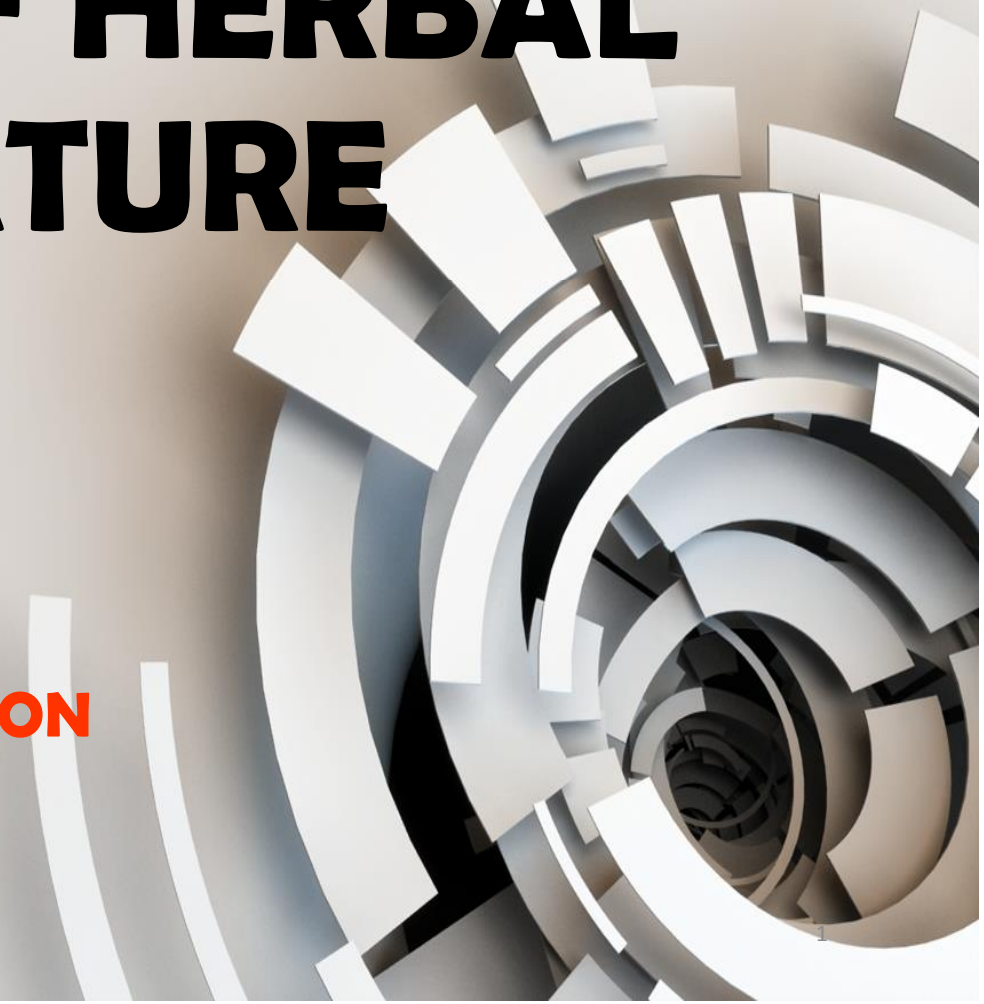
UNIT 5
REVIEW OF HERBAL LITERATURE



CONTENT:

5.1 – MONOGRAPHS

5.2 – PHARMACOPOEIA

5.3 – WEB BASED INFORMATION DATABASE

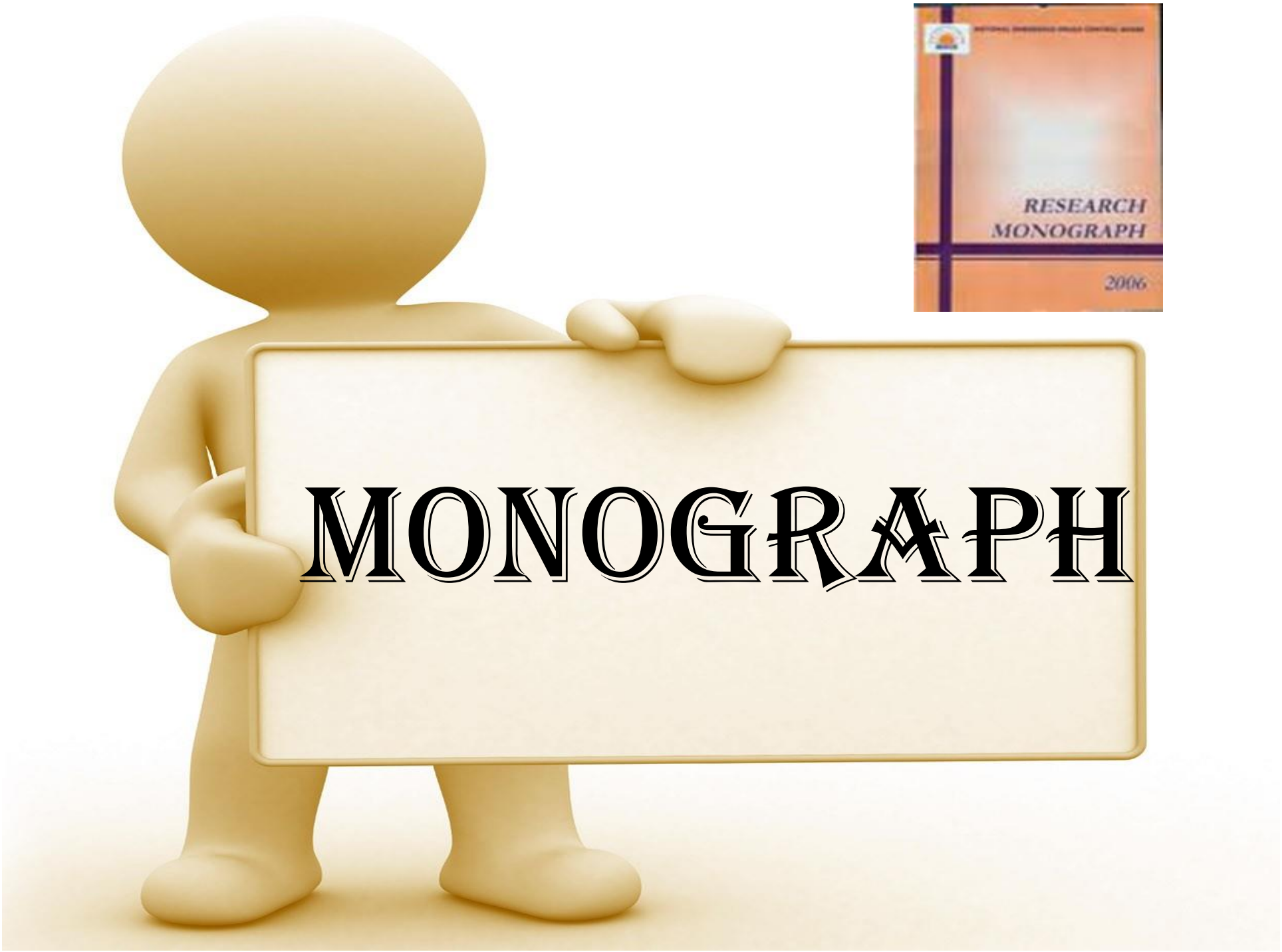
LEARNING OUTCOME

- Explain **sources of references** for herbal literature review
- Describe the **distinct features** of **herbal monographs**, **pharmacopeias**, and **web-based information database**

HERBAL LITERATURE

Three available herbal literature

- Monographs
- Pharmacopoeia
- Web based information


RESEARCH
MONOGRAPH
2006
MONOGRAPH

MONOGRAPH

- A monograph is a **specialist work of writing on a single subject** or **an aspect of a subject**, usually by a single author.

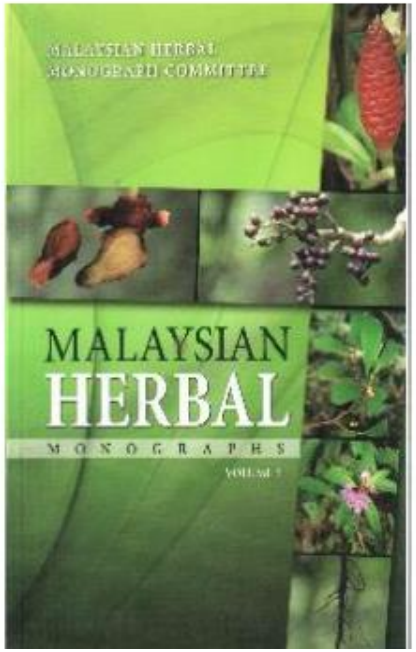
- The term "monographia" is derived from the Greek *mono* (single) and *grapho* (to write), meaning "writing on a single subject".

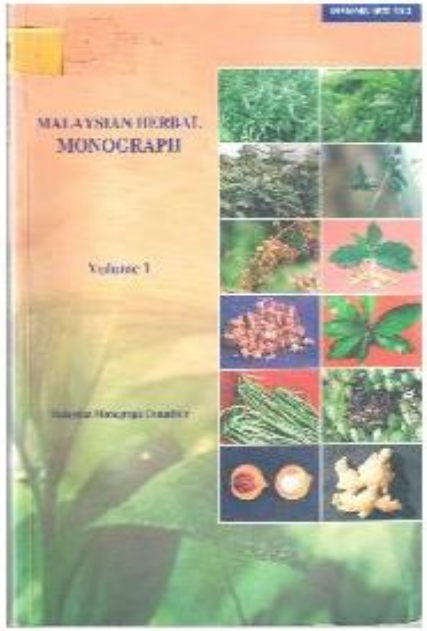
HERBAL MONOGRAPHS

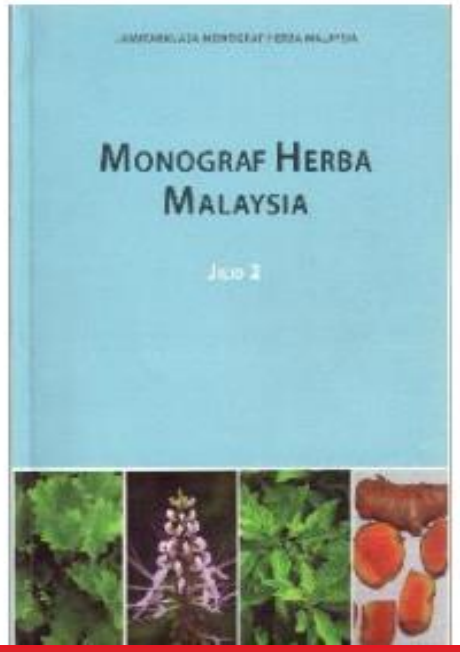
- A modern herb monograph is a **compilation or report** about a **specific herb** providing **detailed information** which is **organised in a logical structure**, including botanical and pharmaceutical information
- Monographs can vary in length, from a single page summary to a multi-page text.
- Published herb monographs have served an **important role in ensuring the quality of herbal** supplies by including detailed descriptions of their physical characteristics, particularly of dried herbs in trade.

MALAYSIA HERBAL MONOGRAPHS

- *Volume* 1, published in 1990 by KKM
- *Volume 2*, published in 2009 by FRIM
- *Volume 3* , published in 2013 by FRIM
- 20 monograph/species in each volume.



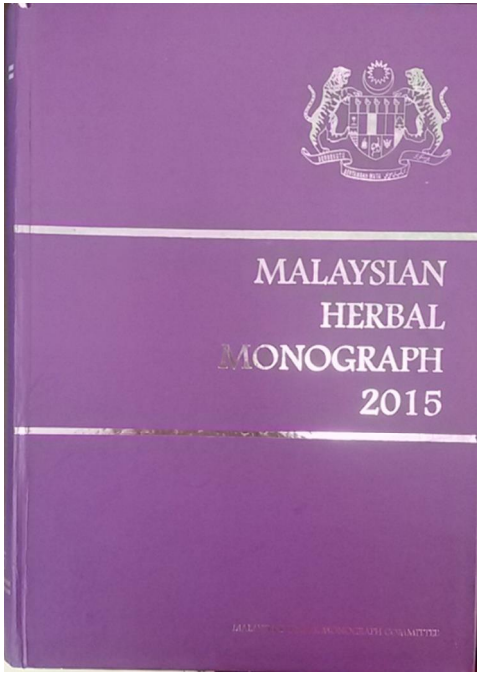




MALAYSIA HERBAL MONOGRAPHS

Malaysian Herbal Monograph 2015

- published in 2015 by Institute for Medical Research
- **69 monographs**
- 60 monographs (16 revised/update) extracted from MHM Volume 1-3
- 9 monographs are new herbal monographs



INSTITUTION INVOLVED

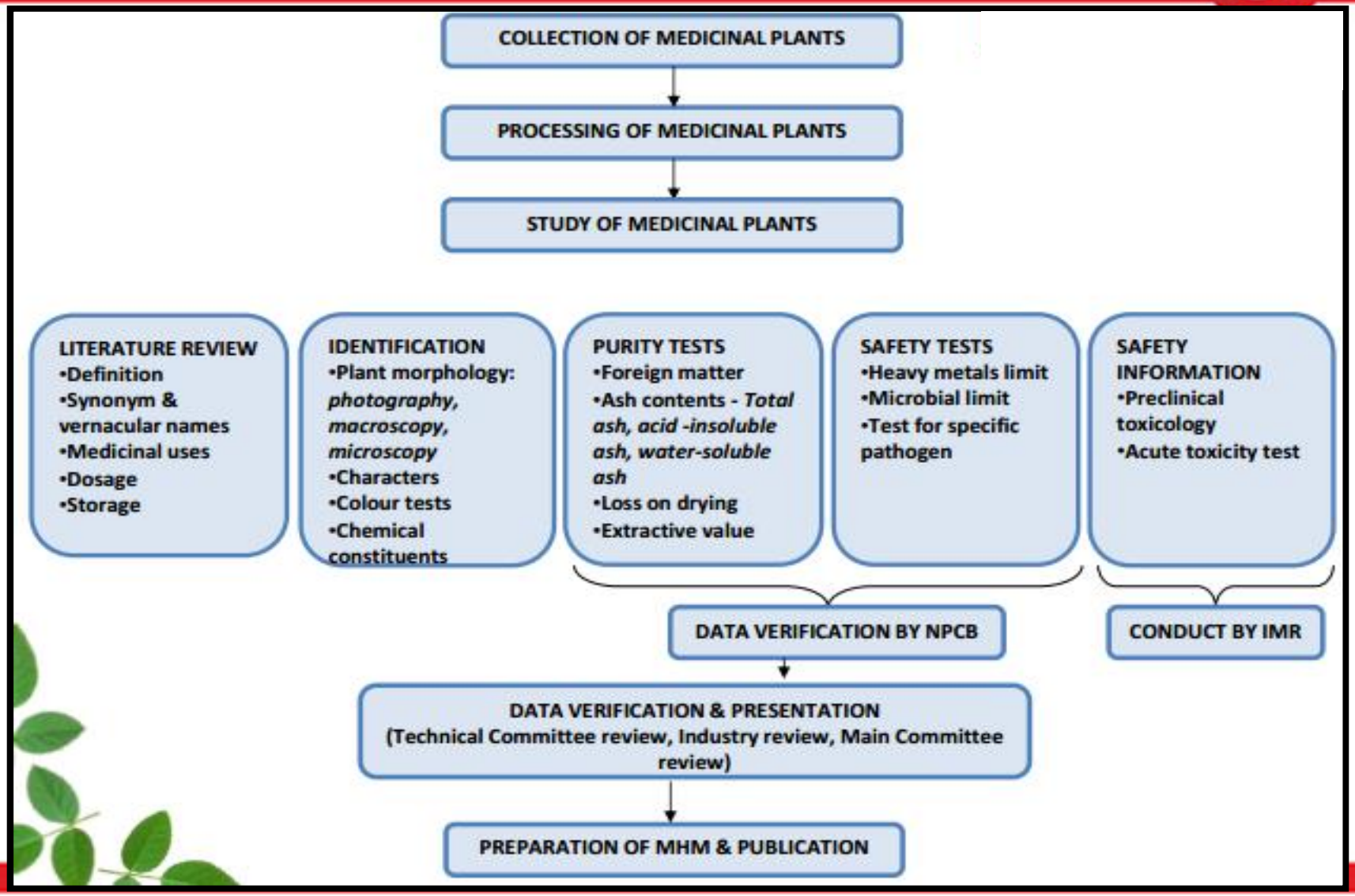
Institution involved in development of Malaysian Herbal Monograph (MHM)

- Institute of Medical Research (IMR)
- National Pharmaceutical Control Bureau (NPCB)
- Forest Research Institute Malaysia (FRIM)
- Malaysian Agriculture Research and Development Institute (MARDI)
- Local Universities such as UKM, UPM and USM

-Technical/Scientific Committee

-Main Committee

WORKFLOW IN PRODUCING MONOGRAPHS



THE IMPORTANCE OF MALAYSIAN HERBAL MONOGRAPHS

1. Invaluable source of scientific information on herbal medicines - Regulators, manufacturers, academia, researchers, health professionals & others
2. Authorities information

- Therapeutic uses of herbal medicines

- Summaries of pharmacological, clinical & toxicological data

3. Ensuring the quality and right raw material goes into the product

- Guidance for authentication of plant material

- Guidance for quality control profile for herbal materials and products (correct species & correct part)

*Authentication is the most basic quality step

USE OF THE HERBAL MONOGRAPHS

- WHO encourages countries to provide safe and effective traditional remedies and practices in public and private health services
- The **monographs** are intended primarily **to promote harmonization in the use of herbal medicines** with respect to levels of **safety**, **efficacy**, and **quality control**
- The monographs will be supplemented and updated periodically as new information appears in the literature, and additional monographs will be prepared.

THE PURPOSE

The purpose of the WHO herbal monographs is to:

1. provide **scientific information on the safety, efficacy, and quality control/ quality assurance** of widely used medicinal plants, in order to facilitate their appropriate use
2. provide **models** to assist Member States in **developing their own monographs or formularies** for these or other herbal medicines; and
3. **facilitate information exchange** among Member States.

THE CONTENT

Each herbal monograph contains two parts:

1. The first part - consists of pharmacopoeial **summaries for quality assurance** (botanical features, distribution, identity tests, purity requirements, chemical assays, and active or major chemical constituents)
2. The second part- summarizes clinical applications, pharmacology, contraindications, warnings, precautions, potential adverse reactions, and posology

FIRST PART CONTENT

PHARMACOPOEIAL SUMMARIES FOR QUALITY ASSURANCE

1. Definition – provides Latin binomial pharmacopoeial name
2. Synonyms and selected vernacular names - those names used in commerce or by local consumers
3. Description – provides detailed botanical description intended for quality assurance at the stages of production and collection
4. Plant material of interest – provides detailed description of the drug material (under) is for the same purpose at the manufacturing and commerce stages
5. General identity tests, Purity tests, and Chemical assays -all normal compendial components included under those headings in these monographs
6. Major chemical constituents - active or major chemical constituents with a characteristic profile that can be used for chemical quality control and quality assurance

SECOND PART CONTENT

1. Dosage forms and of Medicinal uses - categorized as those uses supported by clinical data, those uses described in pharmacopoeias and in traditional systems of medicine, and those uses described in folk medicine, not yet supported by experimental or clinical data
2. Pharmacology (both experimental and clinical)
3. Contraindications such as sensitivity or allergy
4. Warnings & Precautions - discussion of drug interactions, carcinogenicity, teratogenicity and special groups such as children and nursing mothers
5. Adverse reactions
6. Posology

CONCLUSION

The **herbal monograph** provides an **organised set of information about an individual plant**, ideally giving details of **traditional uses, constituents, actions,** and **research findings with references**.

A reliable herbal monograph saves a lot of time and effort searching for evidence.

PHARMACOPOEIA

PHARMACOPOEIA

- Derived from Greek word **'Pharmakon'** means **drug** and **'Poiea'** means **to make**.
- Pharmacopoeia, pharmacopeia, or pharmacopoea - literally, "**drug-making**''
- It is a **legal and official book issued by recognized authorities** usually appointed by **Government of each country**.
- It comprises list of pharmaceutical substances, dosage forms along with their description and standards.

PHARMACOPOEIA

- A **book containing directions for the identification of samples** and **the preparation of compound medicines**, and **published by the authority** of a government or a medical or pharmaceutical society.
- In a broader sense it is a **reference work for pharmaceutical drug specifications**.
  - containing a **description of drugs** used in current medical practice and noting their formulae, analytical composition if known, physical constants, main chemical properties useful for identification and mode of preparation of compound preparations/combination products.

LIST OF PHARMACOPEIAS

a) Argentine b) Austrian c) Belgian d) Brazilian e) **British**
f) Chinese g) Egyptian h) **European** i) French j) German
k) Hungarian l) **Indian** m) **International** n) Italian
o) Japanese p) Yugoslavian q) Mexican r) Netherlands
s) Nordic t) Polish u) Portuguese v) Rumanian
w) Russian x) Spanish y) Turkish z) **United state.**

*** COUNTRIES HIGHLIGHTED IN BLUE COLOUR ARE THE WELL KNOWN/RELIABLE PHARMACOPOEIA**

GENERAL CONTENT

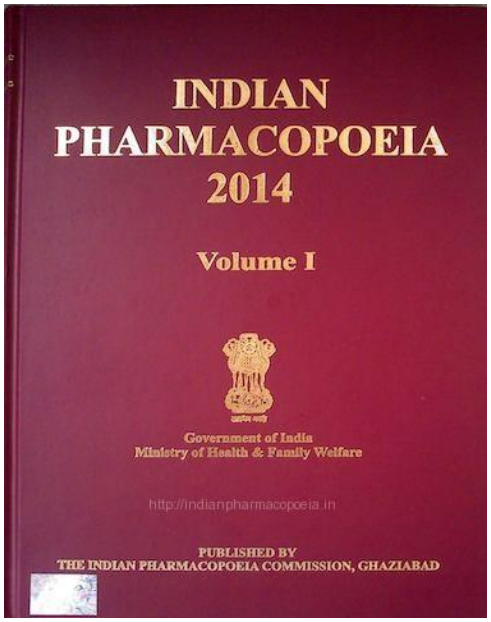
- **Category :** as antifungal , anti bacteria, adrenal glucocorticoid
- **Description**: Physical form of the material, whether hygroscopic, odour, and indication of polymorphism, if applicable
- **Identity Test**: usually using equipment like IR spectrometry, TLC, HPLC, or conventional method like titration, if appropriate
- **Non-specific purity tests**: such as light absorption, optical rotation, sulphated ash etc

- **Related Substance** : to identify Impurities in the drugs that may result from manufacturing process or by degradation of product during storage
- **Assay:** to measure the percentage content of active compound in the product/ drugs itself
- **Storage guidelines :** considering different geographical atmosphere

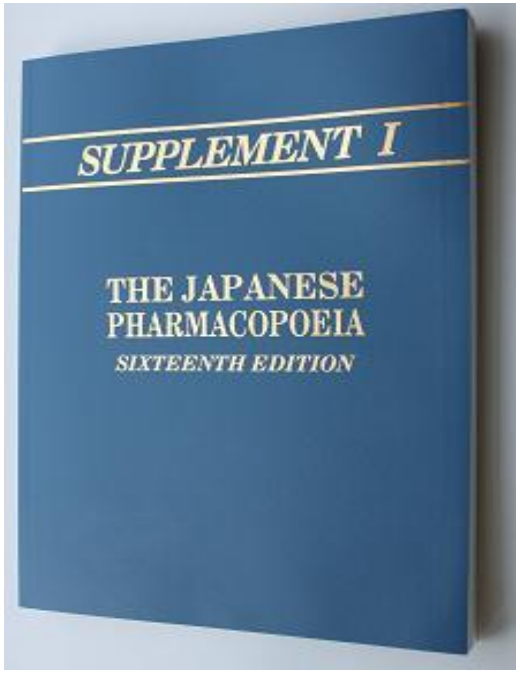
EXAMPLE FOR TYPES OF SUBSTANCES IN PHARMACOPOEIA MONOGRAPHS

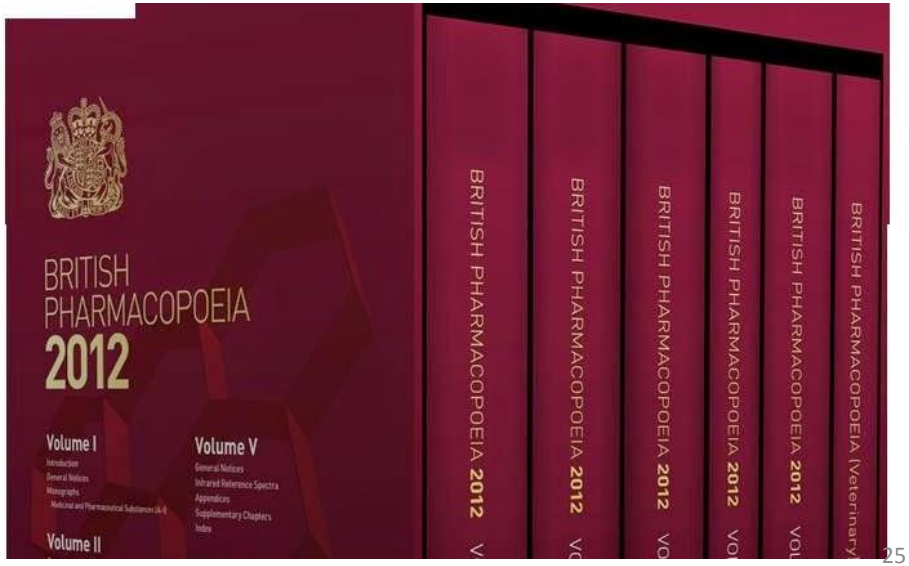
- Pharmaceutical substance
- Dosage Forms
- Supplementary Information
- Excipient
- Substances of biological origin and biotechnology

etc….


INDIAN
PHARMACOPOEIA
2014
Volume I
Government of India
Ministry of Health & Family Welfare
http://indianpharmacopoeia.in
PUBLISHED BY
THE INDIAN PHARMACOPOEIA COMMISSION, GHAZIABAD

USP
U.S. Pharmacopeia
National Formulary
Volume 1
Table of Contents
Front Matter
General Notices
General Chapters TOC
General Chapters
Reagents
Reference Tables
Dietary Supplements
NF Monographs
Combined Index
Volume 2
Table of Contents
General Chapters TOC
General Notices
USP Monographs (A–H)
Combined Index
Volume 3
Table of Contents
General Chapters TOC
General Notices
USP Monographs (I–Z)
Combined Index
U.S. PHARMACOPEIA
The Standard of Quality
2013
USP 36
NF 31
Volume 1
Volume 2
Volume 3


SUPPLEMENT I
THE JAPANESE
PHARMACOPOEIA
SIXTEENTH EDITION


BRITISH
PHARMACOPOEIA
2012
Volume I
Volume II
Volume V
BRITISH PHARMACOPOEIA 2012
BRITISH PHARMACOPOEIA (Veterinary)

LEARNING CHECK!!

What are the differences between herbal monographs and pharmacopoeia?

DISTINCT FEATURES:

- CONTENT → Herbal vs API
- PURPOSE : Herbal monographs & pharmacopoeial monographs are different,
- Herbal monographs provide scientific information on the safety, efficacy, and quality control of widely used medicinal plants;
- pharmacopoeia are comprehensive scientific references for drug regulatory authorities, physicians, traditional health practitioners, pharmacists, manufacturers, research scientists and the general public.

WEB BASED
INFORMATION
DATABASES

WEB BASED INFORMATION DATABASES

Web-based information system :

- an information system that **uses Internet web technologies** to **deliver information and services** to users or other information systems/applications.

Database - an electronic filing system :

- a **collection of information** organized in such a way that a computer program can quickly s**elect desired pieces of data**.

CHARACTERISTICS OF WEB BASED DATABASE

1. **Global access:**
   The internet enables worldwide access, using existing infrastructure and standard telecommunications protocols.
2. **Ease of use:**
   Web browsers provide a familiar interface that is user-friendly and easily learned.
3. **Multiple platforms:**
   Web-based design is not dependent on a specific combination of hardware or software. All that is required is a browser and an internet connection.

4. Cost effectiveness:
Initial investment is relatively low, because the internet serves as the communication network. Users require only a browser, and web-based systems do not require powerful workstation. Flexibility is high, because numerous outsourcing options exist for development, hosting, maintenance, and system support.

5. Security issues:
Security is a universal issue, but internet connectivity raises special concerns. These can be addressed with a combination of good design, software that can protect the system and detect intrusion, stringent rules for passwords and user identification, and vigilant users and managers.

6. Adaptability issues:
The internet offers many advantages in terms of access, connectivity, and flexibility. Converting a traditional database design to the web, however, can require design modification, additional software, and some added expense.

MALAYSIAN HERBAL DATABASE

http://www.globinmed.com/index.php?option=com_content&view=article&id=80849&Itemid=101

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Through Malaysia For The World!

Traditional & Complementary Medicine (T&CM)

Definition and description of therapies, policy, training and education, research in the practise of (T&CM) and integrated medicine system.

Read More

Conservation

Compilation of herbal plants (description, geographical distribution, taxonomy, line drawings), biodiversity and herbarium.

Read More

Research & Publication

Description of herbal and T&CM research, searchable publication and process from medicinal plant discovery to clinical trial in producing a high-quality registered herbal drug.

Read More

Content Menu

- Home
- Conservation
- IMEvidence

News Update

The Energy Fields of Life

Homeopathy 'treatments' must be labelled to say they do not work, US government orders

Acupuncture shows success against hypertension

Advances in the use of acupuncture

Content Menu

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- Safety
- Medicinal Herbs & Plant Database
  - Malaysian Herbal Monograph
  - Medicinal Herbs & Plants
  - Essential Oil
  - Western Herbs
  - South Central America Herbs
  - Native American Herbs
  - South Africa Herbs
  - Ayurveda Herbs
  - Medicinal Herbs & Plants Database
- Policy, Law, Standard and IPR

HOME ⇨ MEDICINAL HERBS & PLANT DATABASE

Filter

Title Filter

Display # 10

Title	Hits
Andrographis paniculata Nees	4429
Aquilaria malaccensis Lamk.	834
Baeckea frutescens L.	182
Blumea balsamifera (Linn.) DC	183
Cananga odorata (Lam.) Hook. f. & Thomson	779
Carica papaya L.	119
Centella asiatica (L.) Urban	5171
Cinnamomum verum J.S. Presl.	916
Citrus hystrix DC (Fruits)	215
Citrus hystrix DC (Leaves)	232

Page 1 of 6 Start Prev 1 2 3 4 5 6 Next End

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- Health Conditions
- Safety
- Medicinal Herbs & Plant Database
  - Malaysian Herbal Monograph
  - Medicinal Herbs & Plants
  - Essential Oil
  - Western Herbs
  - South Central America Herbs
  - Native American Herbs
  - South Africa Herbs
  - Ayurveda Herbs
  - Medicinal Herbs & Plants Database
- Policy, Law, Standard and IPR
- Research & Publications

HOME ⇨ MEDICINAL HERBS & PLANT DATABASE ⇨ MALAYSIAN HERBAL MONOGRAPH

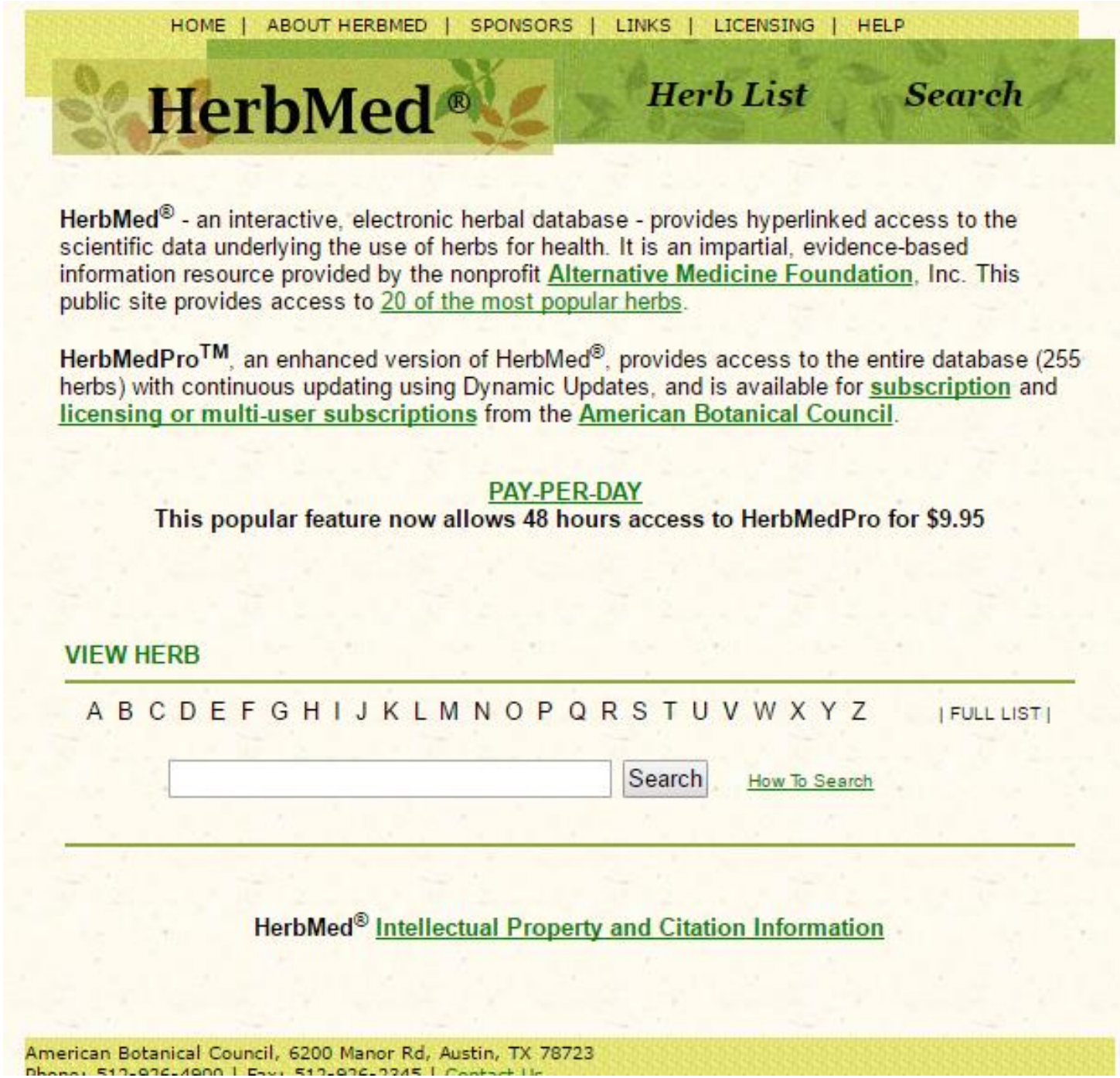
Andrographis paniculata Nees

MALAYSIAN HERBAL MONOGRAPH

Hempedu Bumi Herb

Andrographis paniculata (Burm.f.) Wall. ex Nees

Acanthaceae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HerbMed® - an interactive, electronic herbal database - provides hyperlinked access to the scientific data underlying the use of herbs for health. It is an impartial, evidence-based information resource provided by the nonprofit Alternative Medicine Foundation, Inc. This public site provides access to 20 of the most popular herbs.
HerbMedPro™, an enhanced version of HerbMed®, provides access to the entire database (255 herbs) with continuous updating using Dynamic Updates, and is available for subscription and licensing or multi-user subscriptions from the American Botanical Council.
PAY-PER-DAY
This popular feature now allows 48 hours access to HerbMedPro for $9.95
VIEW HERB
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| FULL LIST |
Search
How To Search
HerbMed® Intellectual Property and Citation Information
American Botanical Council, 6200 Manor Rd, Austin, TX 78723

RELATED LINKS

The following is a categorized listing of most of the main herbal sites and information resources on the World Wide Web. It is not intended to be fully comprehensive. Many of the sites provide hyperlinks to other related resources so that it is possible to access may more from just a few key sites.

INDEX:

Structured Databases-

Searchable - Non-Searchable - Glossaries
Herbal Monographs and Information Resources
Online Journals, Libraries, and Citations
Mailing Lists
Professional and Trade Associations
Related Links
Cultivation & Conservation Issues
Illustrations
Virtual Gardens
Education, Research & Training - Associations
Adverse Effects - Safety and Standards
Legal & Regulatory Information

Herbal Monographs and Information Resources

Although they are often described as databases, the following resources are primarily sets of monographs. They are all quality evaluated or compiled from a particular perspective. It is important to question the criteria underlying the collection and presentation of these resources.

Publicly available:

HerbData New Zealand
http://www.herbdatanz.com/index.htm
It is not clear what organization is behind the site. Seems to be mainly the work of one individual, Ivor Hughes, who has authored most of the monographs. Others are abstracted from reputable sources. Also provides list of articles, Online Campus chat room, and search capability. CD Rom sold on site .

Longwood Herbal Task Force
http://www.mcp.edu/herbal/
Monographs, patient and professional information from the faculty, staff and students of the Children's Hospital, the Massachusetts College of Pharmacy and Health Sciences and the Dana Farber Cancer Institute. No longer maintained.

Memorial Sloan-Kettering Cancer Center- Herbs, Botanicals, & Other Products
htttp://www.mskcc.org/mskcc/html/11570.cfm
Provides information evaluated by oncologists and healthcare professionals at MSK, including a clinical summary for each agent and details about constituents, adverse effects, interactions, and potential benefits or problems.

Phytotherapies.org Monographs
http://www.phytotherapies.org

Online Journals, Libraries, and Citations:

Bibliography from Bastyr University
http://www.bastyr.edu/library/bibliographies/botmcore.htm
A collection of citations from the literature on herbals from the Bastyr library. The categorized listing is extensive and also cites the journals used for the compilation.

Cathay Herbal Library
http://www.cathayherbal.com/library/index.htm
Collection of articles on Traditional Chinese Herbal Medicine for western doctors and TCM practitioners from the Cathay Herbal Laboratories Education Department.

David Winston, Herbalist AHG
http://www.herbaltherapeutics.net/
Click on the Herbal Therapeutics Research Library for full text pdf files of rare and out of print manuscripts from the extensive research library.

European Phytojournal
http://www.ex.ac.uk/phytonet/phytojournal/
Official newsletter of ESCOP, the European Scientific Cooperative on phytotherapy

Fitoterapia
http://www.weizmann.ac.il/InfoUnit/F.html
Phytotherapy journal published by Elsevier Science for Indena, Italy, a private company specializing in botanical derivatives for the pharmaceutical, cosmetic and food industries. Abstracts available. Click on Fitoterapia.

Search:
Go
Advanced Search

NATURAL MEDICINES COMPREHENSIVE DATABASE

Unbiased, Scientific Clinical Information on Complementary, Alternative, and Integrative Therapies

You may be interested in some of our other websites:

NATURAL MEDICINES COMPREHENSIVE DATABASE CONSUMER VERSION

PRESCRIBER'S LETTER

PHARMACIST'S LETTER

Search Natural Medicines Comprehensive Database

- **Search** - enter any natural product name, disease or condition, or drug name...gives you objective product information, Effectiveness Ratings, or potential interactions with drugs, etc.
- **Natural Product Effectiveness Checker** - tells you the level of effectiveness for natural products used for various medical conditions.
- **Natural Product / Drug Interaction Checker** - tells you potential interactions between any natural product and any drug. Automatically checks for interactions with EACH INGREDIENT of each product.
- **Nutrient Depletion Checker** - Identifies potential nutrient depletion issues caused by medications and provides a rating of the clinical significance.
- **Disease / Medical Conditions Search** - shows you medical conditions, and allows you to see which natural products might be effective.
- **Search Colleagues Interact** - shows you questions, answers, and comments posted by other health professionals.
- **Advanced Search** - helps you find specific information or keywords anywhere in the *Database*.

Clinical Management Series

New **Featured:** Alzheimers Disease

- ADHD
- Allergic Rhinitis
- Anxiety
- BPH
- Colds and Flu
- Depression
- Diabetes
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- Headache
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Available as CE/CME for Subscribers

- Hyperlipidemia
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- Insomnia
- Menopausal Symptoms
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NMBER

- Get evidence-based ratings on brand name natural products

Colleagues Interact

- Read Messages
- Start a Discussion

Manage My Account

Privacy and Security Alert

Share Your Thoughts

We'd love to know what you think about *Natural Medicines Comprehensive Database*.
Submit Feedback

Thank you