



# Information services and products for Phytomedicine and Ethno-veterinary medicine: supporting new research niche areas in Africa

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## The History of Medicine (Anon)

2000 B.C. Here, eat this root.

1000 A.D. That root is heathen. Here, say this prayer.

1850 A.D. That prayer is superstition. Here, drink this potion

1940 A.D. That potion is snake oil. Here, swallow this pill.

1985 A.D. That pill is ineffective. Here take this antibiotic.

2000 A.D. That antibiotic is artificial. Here, eat this root.





# Introduction



University of Pretoria  
Faculty of Veterinary Sciences

# Overview



1. The Phytomedicine Programme of the University of Pretoria
2. Information Support
  - Webpage (Phytomedicine in Africa)
  - Groundbreaking articles
  - Published research output
  - E- Resources
  - Digitised Slide Collection
  - Publishing Proceedings
3. Library Collection development
  - Information resources on OCLC Worldcat
  - Evaluating the monograph collection
  - Journals
  - Interpretation of the benchmarking results
4. Conclusion





## What is Phytomedicine?

- ... the use of plants, parts of plants, and isolated phytochemicals for the prevention and treatment of various health concerns...
- *"Ethnoveterinary medicine is important in areas of developing countries that lack access to conventional medicines for animal health care, which are often unaffordable to poor rural farmers."*

*"...the market in traditional medicines is expanding, and traditional practices are increasingly becoming mainstream",*

(McGaw et al. 2007: 366).





# The Phytomedicine Programme of the University of Pretoria

- Multidisciplinary
- Collaborative research
- Expertise
- Capacity and facilities
- Focus





# Information Support





# Webpage (Phytomedicine in Africa)

- description
- parts used
- medicinal uses
- preparation and dosage
- active ingredients
- pharmacological effects
- distribution of the plant
- bibliography





Jotello F Soga Library

Subject Portals

Search

Subject Portals: Phytomedicine

Veterinary Library Home

About our Library

Bibliographies

Digitisation Projects  
SA National Veterinary  
Repository  
Veterinary Science

E-Resources  
Veterinary Databases  
Veterinary E-Journals  
Veterinary E-Books

Faculty of Veterinary Science

History

Information for new users

Interlending

Library in your Office

Newsletters

Research support

Services

Staff and Subjects



### AAMPS African Medicinal Plants

(Based upon Lists A and B of the Centurion Declaration)

**General warning**

This website contains general information about medicinal plants and their uses. It is intended as a general overview and not as a medical handbook for self-treatment. Many of the medicinal plants described are highly toxic and may cause severe allergic reactions or serious poisoning. We cannot be held responsible for claims arising from the mistaken identity of plants or their inappropriate use. Do not attempt self-diagnosis or self-treatment. Always consult a medical professional or qualified practitioner.

- |  |                       |
|--|-----------------------|
| <i>Acacia senegal</i> (L.) Willd.            | Acacia                |
| <i>Adansonia digitata</i> L.                 | Baobab                |
| <i>Aframomum melegueta</i> K. Schum          | Grains of Paradise    |
| <i>Agathosma betulina</i> (Bergius) Pillans  | Buchu                 |
| <i>Aloe ferox</i> Mill                       | Bitter Aloes          |
| <i>Antidesma madagascariensis</i> Lam.       | Bois Bigaignon        |
| <i>Aphloia theiformis</i> (Vahl.) Benn.      | Fandamane             |
| <i>Artemisia afra</i> Jacq                   | African Artemisia     |
| <i>Aspalathus linearis</i> (Burm. F.) Dahlg. | Rooibos               |
| <i>Balanites aegyptica</i> (L.) Del.         | Desert Date           |
| <i>Boswellia</i> spp                         | Frankincense          |
| <i>Bulbine frutescens</i> (L.) Willd.        | Bulbine               |
| <i>Cajanus cajan</i> (L.) Huth               | Pidgeon Pea           |
| <i>Carissa edulis</i> Vahl.                  | Natal Plum            |
| <i>Catharanthus roseus</i> (L.) G. Don.      | Madaqascan Periwinkle |

Catalogue Keyword Search

Google Scholar Search

Quick Links

- Teaching Support
- Research Support
- Undergraduate Support
- Copyright
- Plagiarism
- Referencing Techniques
- Training

My Library Space

- Ask / Chat to a Librarian
- My Library Record
- Interlending Info - Requests
- StudentWeb
- IntraUP

Library Intranet (Staff Only)

Library Home >> Faculty Libraries >> Jotello F Soga Library >> Subject Portals >> Phytopharmacy >> Adansonia Digitata

### Jotello F Soga Library

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Veterinary Science

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### Subject Portals

#### Subject Portals: Phytopharmacy



## Adansonia digitata

Bombacaceae

#### Common names

muvhuyu (Venda); shimuwu (Tsonga); movana (Tswana); kremetart (Afrikaans)  
baobab (English)

#### Family

Fabaceae

#### Description

This remarkable tree is a conspicuous feature of the Northern Province of South Africa. It is relatively short (up to about 15 metres in height), but develops a massive, unevenly folded trunk of more than 20 metres in circumference. The massive, usually squat cylindrical trunk gives rise to thick tapering branches resembling a root-system, which is why it has often been referred to as the upside-down tree. The smooth bark is grey or yellowish-grey. The leaves are hand-sized and divided into 5-7 finger-like leaflets. Being deciduous, the leaves are dropped during the winter months and appear again in late spring or early summer. Each leaflet tapers to a sharp point and is up to 150 mm long. Large, pendulous white flowers are produced in early summer (October to December) (up to 200 mm in diameter), and are sweetly scented. They are followed by very large egg-shaped fruits of up to 150 mm long. The seeds are surrounded by a powdery white pulp ("cream of tartar") and the thin, hard outer shell of the fruit is covered with characteristic velvety, yellow hairs.

#### Parts Used

The dried fruit pulp (mixed with water) or the bark are used, rarely the leaves or seeds.

#### Medicinal Uses



BOOKMARK

### Search

Catalogue Keyword Search

Google Scholar Search

### Quick Links

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- Research Support
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- Copyright
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- Training

Guidelines on the Harvard, APA and Vancouver referencing styles

### My Library Space

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- My Library Record
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- IntraUP

Library Intranet (Staff Only)

# Database of groundbreaking articles



- RefWorks
- RefShare

The screenshot displays the RefWorks web interface in Internet Explorer. The browser address bar shows the URL: <http://0-www.refworks.com.innopac.up.ac.za/Refworks/mainframe.asp?tsmp=1250245905178>. The page title is "Refworks Web Based Bibliographic Management Software - Windows Internet Explorer".

The RefWorks interface includes a navigation menu with options: References, Search, View, Folders, Bibliography, Tools, and Help. A search bar is located at the top right, and a "Welcome, tertia. RefMobile Log out University of Pretoria" message is visible.

The main content area shows a "2004 Folder" with a list of references. A "Tools" menu is open, listing various actions such as Write-N-Cite, RefGrab-It, Backup/Restore, Import EndNote V8+ Database, Export References, Share References, View Duplicates, Search Online Catalog or Database, Preview Output Style, Output Style Manager, Language, Update User Information, and Customize. The "Share References" option is highlighted.

The reference list includes the following entries:

- Ref ID: 161: Journal Article Reference 1 of 5. Title: Assessing African medicinal plants for... Authors: Fennell, C.W.; Lindsey, K.L.; McGaw, L. Source: J.Ethnopharmacol., 2004, 94, 2, 205-212.
- Ref ID: 212: Journal Article Reference 2 of 5. Title: Variation in chemical composition, antibi... Authors: Katerere, D.R.; Eloff, J.N. Source: S.Afr.J.Bot., 2004, 70, 2, 303-305.
- Ref ID: 213: Journal Article Reference 3 of 5. Title: Seven flavonoids with antibacterial activity... Authors: Martini, N.D.; Katerere, D.R.; Eloff, J.N. Source: S.Afr.J.Bot., 2004, 70, 2, 310-312.
- Ref ID: 214: Journal Article Reference 4 of 5. Title: Biological activity of five antibacterial flavonoids from *Combretum erythrophyllum* (Combretaceae) Authors: Martini, N.D.; Katerere, D.R.P.; Eloff, J.N. Source: J.Ethnopharmacol., 2004, 93, 2, 207-212.
- Ref ID: 211: Journal Article Reference 5 of 5. Title: Pretreatment of *Urginea sanguinea* bulbs used in ethnoveterinary medicine influences chemical composition and biological activity Authors: Naidoo, V.; Katerere, D.R.; Swan, G.E.; Eloff, J.N. Source: Pharm Biol., 2004, 42, 7, 529-533.





# Publication of research output

- UPSpace  
Institutional repository
- OpenUP  
Open access faculty publications
- UPeTD  
Electronic theses collection



# Example of a part of the UPSpace collection



UPSpace at the University of Pretoria: Browse by Title - Windows Internet Explorer

https://www.up.ac.za/dspace/handle/2263/8082/browse-title

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UPSpace  
Research Repository of the University of Pretoria, South Africa





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or enter first few letters:

Showing items 1-21 of 105.

[Next page](#)

| Issue Date  | Title                               | Author(s)  |
|---|-------------------------------------|--|
| 2002<br>   | <a href="#">Acacia nilotica</a>     | <i>christo.botha@up.ac.za; Botha, C.J. (Christoffel Jacobus); Venter, Elna; University of Pretoria. Faculty of Veterinary Science. Dept. of Paraclinical Sciences. Section Pharmacology and Toxicology</i> |
| 2002<br> | <a href="#">Acacia species</a>      | <i>christo.botha@up.ac.za; Botha, C.J. (Christoffel Jacobus); Venter, Elna; University of Pretoria. Faculty of Veterinary Science. Dept. of Paraclinical Sciences. Section Pharmacology and Toxicology</i> |
| 2002<br> | <a href="#">Acokanthera species</a> | <i>christo.botha@up.ac.za; Botha, C.J. (Christoffel Jacobus); Venter, Elna; University of Pretoria. Faculty of Veterinary Science. Dept. of Paraclinical Sciences. Section Pharmacology and Toxicology</i> |
| 2002<br> | <a href="#">Agave americana</a>     | <i>christo.botha@up.ac.za; Botha, C.J. (Christoffel Jacobus); Venter, Elna; University of Pretoria. Faculty of Veterinary Science. Dept. of Paraclinical Sciences. Section Pharmacology and Toxicology</i> |



# Example of an OpenUP article



UPSpace at the University of Pretoria: In vitro anthelmintic, antibacterial and cytotoxic effec - Windows Internet Explorer

https://www.up.ac.za/dspace/handle/2263/3192

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Google

UPSpace at the University of Pretoria: In vitro anthel...

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[Scroll down to access full text](#)

**Title:** In vitro anthelmintic, antibacterial and cytotoxic effects of extracts from plants used in South African ethnoveterinary medicine

**Inquiries:** [lyndy.mcgaw@up.ac.za](mailto:lyndy.mcgaw@up.ac.za)

**Author/s:** McGaw, L.J.  
Van der Merwe, D.  
Eloff, J.N.

**LC Subjects:** Anthelmintics  
Antibacterial agents  
Nematode-plant relationships  
Plant extracts  
Traditional veterinary medicine -- South Africa

**Keywords:** Antibacterial  
Brine shrimp  
Anthelmintic  
Cytotoxicity  
Ethnoveterinary medicine

**Issue Date:** Mar-2007

**Publisher:** Elsevier

**Citation:** McGaw, LJ, Van der Merwe, D & Eloff, JN 2007, 'In vitro anthelmintic, antibacterial and cytotoxic effects of extracts from plants used in South African ethnoveterinary medicine', The Veterinary Journal, vol. 173, no. 2, pp. 366-372. [http://www.sciencedirect.com/science/journal/10900233 ]

**Sponsors:** The University of Pretoria and the National Research Foundation are thanked for providing financial support.

**Abstract:** Please refer to abstract in article

**URI:** <http://hdl.handle.net/2263/3192>

**ISSN:** 1090-0233

**Rights:** Elsevier

**Type:** Postprint Article

Done

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start

Novell GroupWise - M... Microsoft Office P... Microsoft Office ... Internet Explorer

12:04 PM



# Example of a thesis on UPeTD



Windows Internet Explorer browser window showing the UPeTD website. The address bar displays: <http://upetd.up.ac.za/thesis/available/etd-07102007-115218/>

**UPeTD**  
University of Pretoria : Electronic Theses and Dissertations

**Title page for ETD etd-07102007-115218**

|                |   |
|----------------|---|
| Document Type  | Doctoral Thesis   |
| Author         | Masoko, Peter   |
| URN            | etd-07102007-115218   |
| Document Title | Characterization of antifungal compounds isolated from <i>Combretum</i> and <i>Terminalia</i> species (Combretaceae)  |
| Degree         | PhD (Phytomedicine)   |
| Department     | Paraclinical Science  |
| Supervisor     | <b>Advisor Name Title</b><br>Dr J A Picard<br>Prof J N Eloff  |
| Keywords       | <ul style="list-style-type: none"><li>• traditional veterinary medicine</li><li>• health aspects</li><li>• medicine plants</li><li>• Combretaceae</li></ul> |
| Date           | 2006-11-24  |
| Availability   | unrestricted  |
| Abstract       | Several investigations into the antimicrobial activity of members of the Combretaceae have been undertaken in recent years. Although                        |

Done Local intranet 100%

Windows taskbar: start, 2 Novell Gr..., 4 Microsof..., 4 Microsof..., 11 Interne..., zupspace.b..., Microsoft Of..., 12:45 PM



# Information Sources

## Collection development







# Information resources on OCLC Worldcat

- "*medicinal plants*" or  
*"Materia medica, Vegetable"*
- "*traditional medicine*"





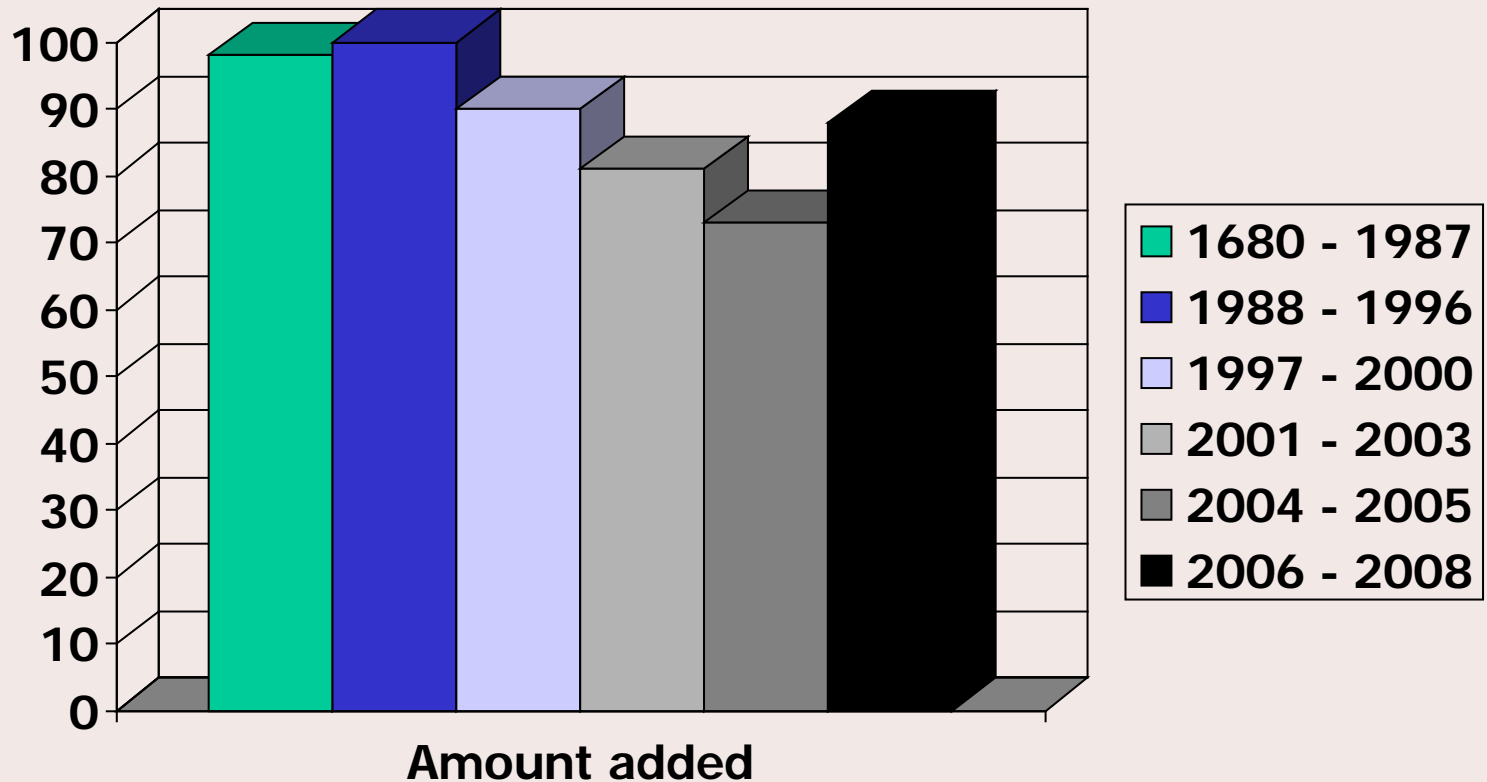
## Information resources on OCLC Worldcat 2007 - Mar 2009

| Format                  | 2007 | 2008 | 2009<br>(Jan - Mar) |
|-------------------------|------|------|---------------------|
| Books                   | 274  | 162  | 35                  |
| Textual Serials         | 1    | 1    | 0                   |
| Visual Materials        | 7    | 3    | 0                   |
| Electronic<br>resources | 2    | 1    | 4                   |



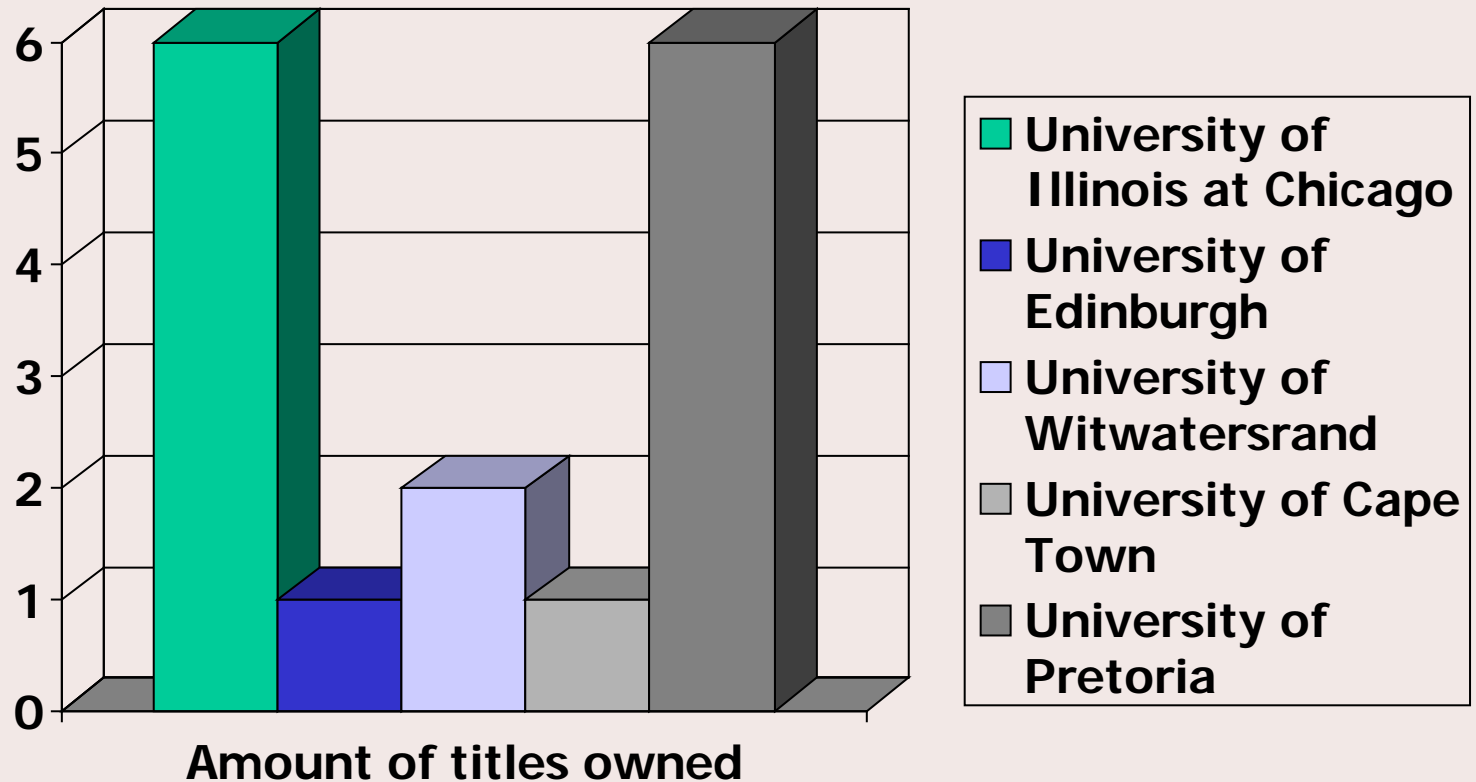


## Theses / dissertations on "*Medicinal Plants*" added on OCLC WorldCat





# Evaluating the monograph collection





# Journals

## JCR Science edition 2007 citation rates data

| Journal title               | Impact factor | Immediacy Index | Cited half-life | Eigenfactor Score |
|-----------------------------|---------------|-----------------|-----------------|-------------------|
| Journal of Ethopharmacology | 2.049         | 0.251           | 6.1             | 0.01809           |
| SA Journal of Botany        | 0.444         | 0.224           | 7.5             | 0.00156           |
| SA Journal of Science       | 0.670         | 0.074           | 9.0             | 0.00392           |





## Conclusion

- Need to develop information resource
- Interlending
- Motivation for further collection development

*" The integrity of data and the transparency about their acquisition are vital to science."*

Rossner et al (2007: 1091)





*Academic libraries "... are not publishers, but they do preserve the functions and purposes of publishers. They are not consumers of information, but they do sustain a culture of deliberative information consumption...they are not the research and teaching embraced by the academy, but without their bibliographic traditions, scholarly discovery, learning, and teaching would be isolated, episodic, and limited to the hash economy of the subject or topic attracting the greatest money or the best students. Ultimately, the purpose of any library is to preserve a global intellectual connective tissue that usefully binds the subjects of all books, articles, reports and myriad other published and unpublished sources of knowledge."*

Shuler (2007: 713)





# Thank you



University of Pretoria  
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