



- CITE VIRTUAL – Virtual Technology Innovation Center. Peru - Uruguay**
- ❖ Executing Agency: Technology Laboratory of Uruguay – LATU
 - ❖ The development of medicinal and aromatic plants value chain. This value chain starts with the production of selected species of plants and continue with the primary industrialization of them for the preparation of essential oils and extracts for pharmacy, cosmetic and food industry.
 - ❖ (CITE) of Peru, FUNDAQUIM (Civil Association for the Development of Chemistry, Chemistry Faculty of Uruguay University) and GS1.
 - ❖ This project promotes capacity building, technical assistance and technological transfer which is being made by LATU and the Technology Innovation Center.

Biotrade- PROMPERU

Biodiversity export 2009

Tara	28,377.94	28
Cachaite	18,728.89	18
Waza del Brasil	11,876.77	13
Achacha	10,180.18	12
Quinua	7,884.13	9
Maca	4,747.47	5
Maca Gigante del Cusco	4,312.53	5
Kiwichia	1,882.72	2
Maca Morado	1,746.82	2
Uña de Gato	1,227.36	1
Bacha Inchi	788.87	1
Carna Camu	862.48	1
Licorice	626.25	1
Yacón	356.14	0
Agwayamanto	23.79	0
Total	67,455.1	100

Fuente: INCITA, Programa de Promoción Bioeconómica

- Tara main export product
- Biodiversity total export: 87 million US\$
- By region:
 - Sierra – 68%
 - Amazon – 28%
 - Costal – 4%
- Main markets USA, EU, Japan

Source: Biotrade Promperu

NOREXPORT

www.norexport.org

BID- Fondo Multilateral de Inversiones (FOMIN)
INTER-AMERICAN DEVELOPMENT BANK – Multilateral Investment Fund

- ❖ Objective: Improve competitiveness at Small and Medium Business at Andean Community by standards national and regional, promoting market access.
 - Identify technical conditions at national and regional levels.
 - Define sector and product to normalize.
 - Promotes instruments of normalization (standard, guides, and Andean Standards)

Colombia : Icontec;
Bolivia: Iborca;
Ecuador: INEN;
Peru: Indecopi.



Projecto GEF-CAF

- ❖ **Global Environment Facility (GEF)**
- ❖ **Andean Development Corporation (CAF)**
- ❖ **United Nations Environment Program (UNEP)**

- ❖ **Project:** "Facilitation of financing for biodiversity business and support for development of Andean Region market".
- ❖ "The total value of this project is US\$14.37 millions, from this amount **GEF** will donate US\$6.41 millions and the rest will be provided by the identified counterparts at Biotrade Programs at each countries" said CAF representative at Peru.



Proyecto GEF-CAF

CADENAS DE VALOR PRIORIZADAS



En general se ha propuesto y se ha aprobado cierto grado de flexibilidad con respecto a las cadenas inicialmente seleccionadas. Esto quiere decir que algunas de las iniciativas apoyadas, en todos los componentes, pueden estar por fuera de las cadenas de valor propuestas. La selección de las iniciativas queda enteramente bajo el criterio de los países.



Project GEF-CAF

- ❖ **Global Environment Facility (GEF)**
- ❖ **Andean Development Corporation (CAF)**
- ❖ **United Nations Environment Program (UNEP)**

- ❖ **Project:** "Facilitation of financing for biodiversity-based businesses and support of market development activities in the Andean Region".
- ❖ **Countries:** Colombia, Ecuador and Peru
- ❖ "The total value of this project is US\$14.37 millions, from this amount **GEF** will donate US\$6.41 millions and the rest will be provided by the identified BioTrade Programs counterparts at each countries" said CAF representative at Peru.



Chile

- ❖ Supreme Decree N° 286 / 2001 (Oficial Newspaper el 18 /Feb/02) included herbal medicines in the National Control System of Pharmaceutical Products.
- ❖ 103 different vegetal species were listed. Resolution 548, July 27, 2009.

Auctoconous Species Medicinal plants

 <small>Buddleja globosa</small>	<p>bailahuén, <i>Haplopappus baylahuen</i> boldo, <i>Peumus boldus</i> canelo, <i>Drimys winteri</i> matico, <i>Buddleja globosa</i> pintoa, <i>Pintoa chilensis</i> patagua, <i>Crinodendron patagua</i> peumo, <i>Cryptocarya alba</i> maqui, <i>Aristolelia chilensis</i></p>	 <small>Drimys winteri</small>
 <small>Aristolelia chilensis</small>		 <small>Cryptocarya alba</small>



Objetivo: To increase the family income of small producer diversifying medicinal plants crops and insertion at value chain of herbal medicines.

Proyectos Argentina




Proyectos Uruguay:



Proyectos Paraguay:



Proyectos Brasil:



From: July 2005 to June/2009
International Fund for Agricultural Development (IFAD)
Direct beneficiary : 910 fam.
Indirect beneficiary: 3.000



Brazil: National Program of Herbal medicines

PROGRAMA NACIONAL DE PLANTAS MEDICINAIS E FITOTERÁPICOS

Portaria nº 1.274/GM/MS

25 June 2008

Plantas Medicinais e FITOTERAPIA

2008

■ Municípios que oferecem o recurso de Plantas Medicinais e/ou Fitoterápicos

Fonte: Pesquisa Expertise / Ministério da Saúde/2008 - DAB/SAS/MS



- Decree nº 5.813, 22.Jun.2006 – It Approves Aproba National Politics of Medicinal Plants and Phytoterapics
- General Objective: To guarantee to Brazil population safe access to rational use of medicinal plants and phytoterapics, through sustainable use of biodiversity, value chain and national industry development.
- It is included in the national purchase program.
- It has promoted the following:
 - Maytenus ilicifolia* (Espinheira-santa)
 - Mikania glomerata* (Guaco) y *Gynura sibirica* (Alcachofra),
 - Glycine max* (Soja isoflavona),
 - Rhamnus purshiana* (Cáscara-sagrada),
 - Uncaria tomentosa* (Unha-de-gato),
 - Harpagophytum proc.* (Garra-do-diabo),
 - Schinus terebinthifolius* (Aroeira-da-praia)

Argentina

- ❖ Herbal Medicines are regulated by Law N° 16.463, Decree 150/92
- ❖ Decree 150/92 Resolution 144/98
- ❖ ANMAT Herbal Medicines (Minister Resolution 144/98).
- ❖ 300 monographs, correspond to herbal medicines.
- ❖ Project “Cultivation for Health”



Latinpharma Project (ITC/UNCTAD/WTO)

Latinpharma: 2002 El Salvador
 Latinpharma : 2003 Peru
 Latinpharma : 2004 Brazil
 Latinpharma : 2005 Chile
 Latinpharma : 2006 Colombia
 Latinpharma : 2008 Argentina
 Latinpharma: 2011 (Pending)

Paises participantes

Argentina	Bolivia
Brasil	Cuba
Chile	Colombia
Costa Rica	Ecuador
Guatemala	Honduras
México	Nicaragua
Paraguay	Perú
Rep. Dominicana	Uruguay

ECE-Latinpharma Fiere Virtual 2007 Participantes por Paises

Países (Otras Excepción)	Número de Participantes
CCM	100
Perú	84
NET	75
Colombia	62
Ecuador	62
Brazil	51
Ecuador	48
URU	48
Venezuela	40
Chile	37
Guatemala	37
Argentina	31
México	31
Argentina	31

Suma Total de Participantes: 244

DNDi founded in 2003 by Médecins Sans Frontières and five public-sector research organizations.

Malaria kills one child every 30 seconds – approximately 3,000 children every day.

Médecins Sans Frontières

WHO/TDR serves as a permanent observer to the initiative

Institut Pasteur

Oswaldo Cruz Foundation

Kenya Medical Research Institute

Indian Council of Medical Research

Malaysian Ministry of Health

DNDi
Days for Neglected Diseases initiative

Farmanguinhos/Fiocruz - DNDi

❖ *Artemisia annua* – The most sought after plant today for malaria treatment




6-11 meses 1 – 5 años 6 – 11 años 12 años o mas

Artesunate-
Mefloquine Far-Manguinhos - DNDi Launched (Brazil) April 2008



April 2008

farmanguinhos **DNDi**
Days for Neglected Diseases initiative



dianaflores@latinpharma.net

International Symposium of
Standardization of
Traditional Medicine
Toyama 2010
Japón

NATIONAL POLICY AND REGULATORY SITUATION OF HERBAL MEDICINE IN CUBA.



MSc. Maritza González Ramírez
maritzag@cecmed.sld.cu

Overview

- **WHO Traditional Medicine Strategy.**
- **Cuban Traditional Medicine Programme.**
- **Regulatory environment for medicine plants and herbal medicines.**
- **Relation between Ministry of Public Health and Ministry of the Agriculture.**

WHO TRADITIONAL MEDICINE PROGRAMME

Traditional Medicine has always maintained its popularity worldwide. In addition, over the last decade, we have seen an increasing use in many developed and developing countries. The safety and efficacy of Traditional Medicine, as well as quality control, have become important concerns for both health authorities and the public.

WHO TRADITIONAL MEDICINE STRATEGY

The World Health Organization (WHO) through the World Health Assembly has adopted a number of resolutions which the major objectives on the Traditional Medicine (TM) are: to facilitate the integration of TM to the national health systems; to promote the rational use of TM through the development of technical guidelines and international standards in the field of herbal medicine.

In order to face these challenges the WHO Traditional Medicine Strategy was developed with its four primary objectives:

- **National policy and legal framework:**
Development and implementation of new policies. Strengthening of the legal basis on Traditional Medicine.
- **Safety, efficacy and quality:**
Development of national guidelines to ensure the safety, efficacy and quality of products. Development scientific research.
- **Access:**
An increase of the availability and access on Traditional Medicine.
- **Rational use:**
Promotion of the rational therapeutic use of quality assured products.

Herbal Medicine have been included in the International Conference on Drug Regulatory Authorities (ICDRA). It annually holds meeting and make recommendations on TM.

NATIONAL HEALTH SYSTEM



CUBAN TRADITIONAL MEDICINE PROGRAMME

1. Organization of the traditional medicine in the national health system.
 - National Network of TM Centers.
 - Polyclinics / Hospitals / dental clinics, etc.
 - National Network of Pharmacy
2. Production, marketing and use of natural products.
3. Training of Human Resources.
 - Pre-graduate: Included in the curriculums.
 - Postgraduate: Basic courses, Diplomas, Master of Science and Speciality on TM.
4. Scientific research.

NATIONAL CENTER FOR STATE QUALITY CONTROL OF DRUGS

CUBAN DRUG REGULATORY AUTHORITY (CECMED)

This center was created in 1989 as the official regulatory authority for unifying activities related to drug control.

Mission

CECMED's mission is to guarantee public health protection through an efficacious regulatory system and health control; ensuring drugs and in-vitro diagnostic products both from domestic and international market are safe, effective and with the required quality.

NATIONAL CENTER FOR STATE QUALITY CONTROL OF DRUGS

CUBAN DRUG REGULATORY AUTHORITY (CECMED)

REGULATORY ENVIRONMENT

- **Drugs**
- **Vaccine, Biological and Biotechnologic products**
- **Natural and homeopathic products**
- **Hospital disinfectants**

REFERENCE ORGANIZATIONS

- **WHO recommendations**
- **EMEA**
- **FDA**
- **ICH**
- **Regional harmonization process**

BASIC FUNCTIONS FOR CONTROL AND REGULATION OF NATURAL PRODUCTS

- Registration
- Authorization/Inspection/Control of clinical trials.
- Good Practices Inspection and License.
- Access to Quality Control Laboratory.
- Post-marketing surveillance.

9

REGULATORY SYSTEM FOR NATURAL PRODUCTS

Guarantee safety, efficacy and quality of natural products (medicine plants, mineral and animal in origin).

MAIN ACTIVITIES

NATIONWIDE

- Regulations for registration.
- Development of technical documents and methodology for safety, efficacy and quality evaluation, included the plant materials (guidelines, norms, methodology, monographs of herbal medicines, etc.)
- To advice on clinical investigations of natural products.
- To audit the centers where clinical trials are developed.
- Inspections to manufacturers.
- Establishment the Expert Committee for revising and making policies and technical recommendations.

WORLDWIDE

- Access to the state of the art on traditional medicine through interchange of information with other countries.
- Interchange of investigation results with other countries on traditional medicine for the treatment of the common sickness.
- Database with evidence on safety and efficacy.

PROJECTS IN PROGRESS

- Development of monographs of medicinal plants
- Development of Good Agricultural and Collection Practices.

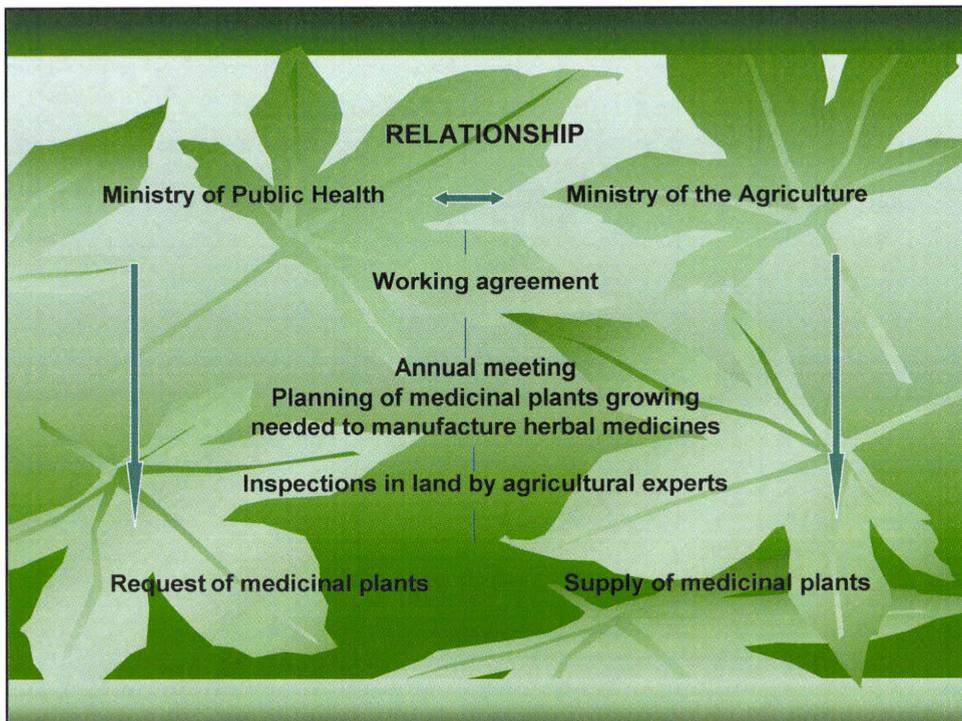
LEGAL DOCUMENTATION FOR NATURAL PRODUCTS REGISTRATION

REGULATIONS

- Regulation CECMED No. 28/2002 Requirements for the register of herbal medicines. 
- Regulation CECMED No. 16/2006 Annexes No. 3 Good Manufacturing Practices of herbal medicines.

OTHER TECHNICAL DOCUMENTS AND DATABASE

- National List of Essential Herbal Medicines. 
- Therapeutic guidelines of medicine plants.
- Technical Cultivate Norm. 
- Regulation for the manufacturing process and quality control of medicinal plants.
- Guideline on quality control methods of medicinal plant materials and herbal medicines.
- Monographs of medicinal plants. 
- FITOMED (Database of medicinal plants). www.infomed.sld.cu 
- FITOTOX (Database of toxic medicinal plants).
- And other publications on medicinal plants. [www.infomed.sld.cu/revista/revista cubana de plantas medicinales](http://www.infomed.sld.cu/revista/revista_cubana_de_plantas_medicinales) and other magazines. 



- Points to be checked during the inspection:**
- Growing
 - Post-harvest treatment
 - Quality control
 - Packing and labeling
 - Storage
- Based on the approved list of medicinal plants our policy guarantees these medicinal plants supply.

NORM MINISTRY PUBLIC HEALTH

- NRSP 310/1991. "Droga Cruda. Especificaciones Generales"
- NRSP 312/1991. "Extractos Fluidos y tinturas. Metodos de ensayo"
- NRSP 311/1991. "Extractos Fluidos y Tinturas. Procesos Tecnológicos"
- NRSP 313/1991. "Tintura de Manzanilla. Especificaciones"
- NRSP 314/1991. "Extracto Fluido de Eucalipto Citriodora. Especificaciones"
- NRSP 315/1991. "Extracto Fluido de Tilo. Especificaciones"
- NRSP 316/1991. "Extracto Fluido de Llantén menor. Especificaciones"
- NRSP 319/1991. "Tintura de Eucalipto citriodora. Especificaciones"
- NRSP 320/1991. "Extracto Fluido de Caléndula". Especificaciones"
- NRSP 321/1991. "Tintura de Caléndula. Especificaciones"
- NRSP 322/1991. "Extracto Fluido de Te de Riñón. Especificaciones"
- NRSP 324/1991. "Extracto Fluido de Manzanilla. Especificaciones"
- NRSP 329/1991. "Tintura de Jengibre. Especificaciones"
- NRSP 330/1991. "Tintura de Cápsico. Especificaciones"
- NRSP 331/1991. "Extracto Fluido de Pasiflora". Especificaciones"
- NRSP 332/1991. "Tintura de Hinojo. Especificaciones"
- NRSP 346/1997. "Extracto Fluido de Cayeput. Especificaciones"
- NRSP 350/1997. "Tintura de Naranja. Especificaciones"
- NRSP 353/1997. "Tintura de Toronjil de Menta. Especificaciones"
- NRSP 356/1997. "Extracto Fluido de Romerillo. Especificaciones"
- NRSP 357/1997. "Extracto Acuoso de Romerillo. Especificaciones"

TECHNICAL CULTIVATE NORM

- | | |
|------------------------------------|--|
| • Aloe vera. (L.) N. L. Burm | • Ocimum gratissimum L. |
| • Anethum graveolens L. | • Ocimum tenuiflorum L. |
| • Bixa arellana L. | • Origanum majorana L. |
| • Brassica juncea (L.) Czernajev | • Orthosiphon aristatus (Blume) miq. |
| • Calendula officinalis L. | • Passiflora incarnata L. |
| • Coriandrum sativum L. | • Pedilanthus tithimaloides (L.) Poit. |
| • Curcuma longa L. | • Pimenta dioica (L.) Merr. |
| • Cymbopogon citratus (DC.) Stapf. | • Plantago lanceolata L. |
| • Foeniculum vulgare Mill. | • Plantago major L. |
| • Indigofera suffruticosa Mill. | • Plectranthus anboenicus (Lour.) Spreng |
| • Justicia pectoralis Jacq. var | • Punica granatum L. |
| • Lippia alba (Mill.) N. E. Burm. | • Rorippa nasturtium-aquaticum (L.) Hayeck |
| • Maranta arundinacea L. | • Rosmarinus officinalis L. |
| • Matricaria recutita L. | • Ruta graveolens L. |
| • Melissa officinalis L. | • Salvia officinalis L. |
| • Mentha arvensis L. | • Senna lata (L.) Roxb. |
| • Mentha piperita L. | • Stachytarpheta jamaicensis (L.) Vahl |
| • Mentha pulegium L. | • Thymus vulgaris L. |
| • Mentha spicata L. | • Vetiveria zizanioides (L.) Nash. |
| • Ocimum basilicum L. | • Zingiber officinale Roscoe |

FITOMED

Aguacate (<i>Persea americana</i> Mill.)	Doradilla (<i>Polypodium polypodioides</i> (L.) A. S. Hitch.
Aji (<i>Capsicum annum</i> L.)	Eneido (<i>Anethum graveolens</i> L.)
Aji Guadua (<i>Capsicum frutescens</i> L.)	Escoba Amarga (<i>Parthenium hysterophorus</i> L.)
Ajo (<i>Allium sativum</i> L.)	Eucalipto (<i>Eucalyptus</i> sp. div)
Albahaca (<i>Ocimum basilicum</i> L.)	Eucalipto de Limón (<i>Eucalyptus citriodora</i> Hook.)
Albahaca Morada (<i>Ocimum sanctum</i> L.)	Fruta Bomba (<i>Carica papaya</i> L.)
Alicantor (<i>Cinnamomum camphora</i> (L.) Presl)	Gavilán (<i>Simarouba glauca</i> DC.)
Anamu (<i>Petiveria alliacea</i> L.)	Geranio de Olor (<i>Pelargonium graveolens</i> L' Hérit. ex W.Aiton.)
Anís Estrellado (<i>Illicium verum</i> Hook f.)	Granada (<i>Punica granatum</i> L.)
Añil Cimarrón (<i>Indigofera suffruticosa</i> Mill.)	Guasima (<i>Guazuma ulmifolia</i> Lam.)
Apasote (<i>Chenopodium ambrosioides</i> L.)	Guatemala (<i>Myroxylon balsamum</i> (L.) Harms var. <i>ereirae</i>)
Arraigán (<i>Myrica cerifera</i> L.)	Guayaba (<i>Psidium guajava</i> L.)
Arroz (<i>Oryza sativa</i> L.)	Guía Cimarrona (<i>Crescentia cujete</i> L.)
Bija (<i>Bixa orellana</i> L.)	Guisano de Castilla (<i>Xanthium strumarium</i> L.)
Café (<i>Coffea arabica</i> L.)	Hierba Buena (<i>Mentha spicata</i> L.)
Caisimón de Anís (<i>Piper auritum</i> HBK)	Hierba Mala (<i>Solanum nigrescens</i> Mart & Gal.)
Calabaza (<i>Cucurbita moschata</i> Duch. Ex Poir.)	Higuera (<i>Ricinus communis</i> L.)
Calendula (<i>Calendula officinalis</i> L.)	Hinojo (<i>Foeniculum vulgare</i> Miller)
Caña Fistula (<i>Cassia fistula</i> L.)	Inclanón (<i>Artemisia absinthium</i> L.)
Santa Santa (<i>Cymbopogon citratus</i> (DC.) Stapf.)	Ipecacuana (<i>Cephaelis ipecacuanha</i> (Brot.) A. Rich.)
Calambardo (<i>Cassia grandis</i> L. f.)	Jasmin de Hojas (<i>Jasminum officinale</i> L.)
Carapita (<i>Melaleuca leucadendra</i> (L.) L.)	Jengibre (<i>Zingiber officinale</i> Roscoe)
Cebolla (<i>Allium cepa</i> L.)	Limon (<i>Citrus limon</i> (L.) Burm. f)
Cejeza del País (<i>Malpighia glabra</i> L.)	Llantén Mayor (<i>Plantago major</i> L.)
Chamico (<i>Datura stramonium</i> L.)	Llantén Menor (<i>Plantago lanceolata</i> L.)
Cidra (<i>Citrus limetta</i> Risso)	Maíz (<i>Zea mays</i> L.)
Ciprés (<i>Cupressus sempervirens</i> L.)	Mangua (<i>Hibiscus elatus</i> Sw.)
Clavo de Olor (<i>Eugenia caryophyllata</i> Thumb.)	Mango (<i>Mangifera indica</i> L.)
Coco (<i>Cocos nucifera</i> L.)	Manzanilla (<i>Matricaria recutita</i> L.)
Cordobán (<i>Tradescantia spathacea</i> Sw.)	Maravilla (<i>Mirabilis jalapa</i> L.)
Culantro Cimarrón (<i>Eryngium foetidum</i> L.)	Mastuerzo (<i>Lepidium virginicum</i> L.)
Cúrcuma (<i>Curcuma longa</i> L.)	Menta Americana (<i>Lippia alba</i> N. E. Brown ex Britt. & Wils.)
	Menta Japonesa (<i>Mentha arvensis</i> L.)

FITOMED

Alfalfa (<i>Achillea millefolium</i> L.)	Sábila (<i>Aloe vera</i> (L.) Burm. f.)
Mostaza (<i>Brassica juncea</i> (L.) Coss.)	Sage (<i>Maranta arundinacea</i> L.)
Naranja Agria (<i>Citrus aurantium</i> L.)	Salvia (<i>Pluchea carolinensis</i> (Jacq.) G. Don in Sweet.)
Naranja Dulce (<i>Citrus sinensis</i> (L.) Osbeck)	Salvia de Castilla (<i>Salvia officinalis</i> L.)
Nuez Moscada (<i>Myristica fragrans</i> Hoult.)	Siempre viva (<i>Kalanchoe pinnata</i> (Lam.) Pers.)
Orégano Cimarrón (<i>Ocimum gratissimum</i> L.)	Tabaco (<i>Nicotiana tabacum</i> L.)
Orégano Francés (<i>Coleus amboinicus</i> Lour.)	Tamarindo (<i>Tamarindus indica</i> L.)
Oreja de Ratón (<i>Centella erecta</i> (L. f.) Fern.)	Té de Raton (<i>Orthosiphon aristatus</i> Blume)
Palo Campeche (<i>Haematoxylon ampechianum</i> L.)	Tilo (<i>Justicia pectoralis</i> Jacq.)
Papa (<i>Solanum tuberosum</i> L.)	Tomate (<i>Lycopersicon esculentum</i> Mill.)
Paraiso (<i>Melia azedarach</i> L.)	Toronjil (<i>Melissa officinalis</i> L.)
Paraiso Francés (<i>Moringa oleifera</i> Lam.)	Torónjil de Menta (<i>Mentha x piperita</i> L.)
Passiflora (<i>Passiflora incarnata</i> L.)	Yerba Cimarrona (<i>Stachytarpheta jamaicensis</i> (L.) Vahl.)
Pino Macho (<i>Pinus caribaea</i> Morelet)	Yerba Buena (<i>Vetiveria zizanioides</i> (L.) Nash)
Platano de Cuba (<i>Piper ossanum</i> (C. DC.) Trel.)	Yerba Mala (<i>Catharanthus roseus</i> (L.) G. Don)
Plátano (<i>Musa x paradisiaca</i> L.)	Violeta (<i>Viola odorata</i> L.)
Quimbombó (<i>Abelmoschus esculentus</i> (L.) Moench.)	Yerba de la Niña (<i>Phyllanthus</i> sp.)
Rabo de Gato (<i>Achyranthes aspera</i> L.)	Yuca (<i>Manihot esculenta</i> Crantz)
Remolacha (<i>Beta vulgaris</i> L.)	Yugueta (<i>Curcuma longa</i> L.)
Romerillo (<i>Bidens pilosa</i> L.)	
Romero (<i>Rosmarinus officinalis</i> L.)	
Ruda (<i>Ruta graveolens</i> L.)	
Sábila (<i>Aloe arborescens</i> Mill.)	

SOME INVESTIGATED SPECIES

1. Ajo (*Allium sativum* L.)
2. Albaca morada (*Ocimum tenuiflorum* L.)
3. Anamú (*Petiveria alliacea* L.)
4. Añil cimarrón (*Indigofera suffruticosa* Mill.)
5. Bija (*Bixa orellana* L.)
6. Caisimón de anís (*Piper auritum* Kunth)
7. Caña santa (*Cymbopogon citratus* (D.C.) Stapf.)
8. Cayeput (*Melaleuca leucadendron* L.)
9. Copal (*Schinus terebentifolius* Raddi)
10. Cordován (*Rhoeo spatacea* (Sw.) Stearn)
11. Doradilla (*Polypodium polypoides* (L.) Watt)
12. Eucalipto (*Eucalyptus citriodora* Hook)
13. Estefanía (*Stephania rotunda* Lour)
14. Guacamaya francesa (*Senna alata* (L.) Roxb.)
15. Guayaba (*Psidium guajava* L.)
16. Hinojo (*Foeniculum vulgare* Mill.)
17. Jazmín de 5 hojas (*Jasminum grandifolium* L.)
18. Jengibre (*Zingiber officinale* Roscoe)
19. Limón (*Citrus aurantifolia* Swingle c.v. mexicana)
20. Llantén menor (*Plantago lanceolata* L.)
21. Majagua (*Hibiscus elatus* Sw.)
22. Manzanilla (*Matricaria recutita* L.)
23. Marilope (*Turnera ulmifolia* L.)
24. Mastuerzo (*Lepidium virginicum* L.)
25. Naranja agria (*Citrus aurantium* L.)
26. Naranja dulce (*Citrus sinensis* (L.) Osbeck)
27. Orégano francés (*Plecthrantus amboinicus* Spreng)
28. Pasiflora (*Passiflora incarnata* L.)
29. Pino (*Pinus caribaea* Morelet)
30. Quita dolor (*Lippia alba* (Mill.) N.E.Br)
31. Romero (*Rosmarinus officinalis* L.)
32. Sábila (*Aloe vera* (L.) N.L. Burm)
33. Tamarindo (*Tamarindus indica* L.)
34. Te de riñón (*Orthosiphon aristatus* (Blume) Miq.)
35. Tilo (*Justicia pectoralis* Jacq.)

NATIONAL LIST OF ESSENTIAL HERBAL MEDICINES

1. Ajo tintura 20% (analgésico, antiinflamatorio y antiparasitario)
2. Aloe crema 50% (cicatrizante, protector de la piel)
3. Aloe jarabe 50% (antiasmático)
4. Aloe loción capilar (revitalizante del cabello)
5. Añil cimarrón loción (pediculicida)
6. Calabaza papelillos (antiparasitario)
7. Caléndula tintura 20% (antibacteriano)
8. Caña santa tintura (antihipertensivo)
9. Cañandonga jarabe (antianémico)
10. Crema antimicótica I (antimicótico)
11. Itamorreal tintura (desinfectante boca - garganta)
12. Crema nutritiva (protector de la piel)
13. Eucalipto jarabe (antiasmático)
14. Eucalipto tintura 20% (antiinflamatorio, antitusígeno)
15. Fango minero-medicinales. (antiinflamatorio)
16. Gotas antitusivas (antitusivas)
17. Guayaba talco (antimicótico)
18. Imefasma jarabe (broncodilatador)
19. Jengibre tintura 50% (antiemético)
20. Loción de bentonita y zeolita (protector de la piel)
21. Llantén extracto fluido (antiséptico, antiinflamatorio)
22. Mangle rojo mellito (antiácido)
23. Manzanilla tintura 20% (digestivo)
24. Manzanilla crema (protector de la piel)
25. Menta tintura 20% (digestivo)
26. Naranja dulce jarabe (anticatarral, expectorante)
27. Naranja tintura 20% (antiespasmódico y diurético)
28. Orégano jarabe (anticatarral, antitusivo)
29. Pasiflora extracto fluido (sedante)
30. Pino macho extracto fluido (antimicótico)
31. Propóleo tintura 30% (antiparasitario)
32. Talco antifungico (antifungico)
33. Tilo extracto fluido (sedante)

MONOGRAPHS

- *Aloe vera* L.
- *Justicia pectorales* J.
- *Rhizophora mangle* L.
- *Matricaria recutita* L.
- *Allium sativum* L.
- *Aloe vera* L.
- *Zingiber officinale* L..
- *Pasiflora incarnata* L.
- *Orthosiphon aristatus* B.

INFORMATION REQUIRED

- **Administrative Information**
- **Chemical pharmaceutical and biological information.**
- **Preclinical Information**
- **Clinical Information**