Validity of Current Herbal Medicinal Products

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Medicinal Plants

- Over 70,000 plant species are thought to be Medicinal

- 80% of people living in developing countries use traditional medicine as primary healthcare needs

- The global trade in herbal products is over $60 billion a year

- Most of the popular commercial drugs have been derived from plants

World Health Organization, 2003
Traditional medicine systems

- Indian system of TM (Ayurveda, Siddha and Unani)
- Traditional Chinese Medicine
- Ancient Iranian Medicine
- Ancient Islamic Medicine
- Traditional Korean Medicine
- Traditional African Medicine
Traditional Methodology

• Collection
• Substitute plants
• Processing
• Detoxification
• Combining several species
Use of Medicinal Plants in the United States

- Herbal Dietary Supplements
- Pharmaceuticals
- Fragrances
- Flavoring ingredients
- Coloring ingredients
Herbal Dietary Supplements: Issues in the US

*Morinda citrifolia* L. (Rubiaceae)

Noni – Anticancer/antioxidant
Herbal Dietary Supplements: Issues in the US

*Lycium barbarum* L. (Solanaceae)
Gojiberry – for long life
Herbal Dietary Supplements: 
*Issues in the US*

_Hoodia gordonii_ (Masson) Sweet ex Decne. *(Asclepiadaceae)*
Appetite Suppressant
Herbal Dietary Supplements: *Issues in the US*

Herbal Viagra
Uncontrolled Psychoactive Plants

*Turnera diffusa* Willd. ex Schult. (Turneraceae)
Damina

*Leonotis leonurus* (L.) R.Br. (Lamiaceae)
Wild Dagga

*Leonurus sibiricus* L. (Lamiaceae)
Marihuanilla
Medicinal Plants as Cash Crops

_Salvia miltiorrhiza_ (Lamiaceae)

Red Sage - promotes blood circulation and vessel inflammation
Medicinal Plants as Cash Crops

*Centella asiatica* (Apiaceae)  
Gotukola

*Centella erecta* (Apiaceae)  
Erect Centella
Medicinal Plants as Cash Crops

- *Stevia rebaudiana* Natural Sweetener
Medicinal Vegetables

– *Trichosanthes cucumerina*
  (Snake gourd)
Anticancer activity
Medicinal Vegetables

– *Momordica charantia*
  (Bitter gourd)
  Anti-diabetic activity
Medicinal Vegetables

– *Lagenaria siceraria*  
(Bottle gourd)  
Free-radical scavenging, Reduce s appetite
Medicinal Vegetables

– *Dioscorea* sp.
  (Yams)
HRT and Contraceptive
Medicinal Vegetables

– *Arctium lappa*
  (Burdock/Gobi)

Antioxidants, Prebiotic properties,
Suppresses lipid synthesis
Medicinal Vegetables

- *Moringa oleifera*
  (Drumstick)

  Gastric ulcers, heartburn
  Anti-tumor
Medicinal Vegetables

– *Cynara scolymus* (Artichoke)

Cynarine: Liver and gall bladder function

Lowers Cholesterol
Medicinal Vegetables

– *Cynara cardunculus* (Cardoon)
Medicinal Vegetables

– *Asparagus officinalis*  
(Asparagus)  
Antioxidants, Immunostimulants,  
Anti-inflammatory, Reproductive health
Medicinal culinary herbs

- *Piper sarmentosum* (Lolot)
  Lowering cholesterol,
  Preventing Asthma and Allergies
Medicinal culinary herbs

- *Perilla frutescens* (Sisho)
  Anti-tumor, Anti-allergic
Medicinal culinary herbs

- *Pandanus amaryllifolius*  
  (Pandan leaves)  
  Anti-oxidant; anti-tumor,  
  Lowering cholesterol
Medicinal culinary herbs

- *Cymbopogon citratus* (Lemon Grass)
  Anti-mutagenic
Medicinal culinary herbs

- *Citrus hystrix* (Kafir lime leaves)
  Hypertension, Neurostimulator
Medicinal culinary herbs

- *Alpinea galanga* (Galangal)
  - Anti-tumor,
  - Increase sperm count
Medicinal culinary herbs

- *Murraya koenigii*
  (Curry leaves)
  Anti-inflammatory, Anti-tumor
Medicinal spices

- Chilies
- Cinnamon
- Turmeric
- Star Anise
Medicinal spices

Cardamons

Cloves

Fenugreek seeds

Nigella
Medicinal Fruits

Soursop / Guanabana

Pomegranate

Goji berry

Star fruit
Medicinal Fruits

Mangosteen

Mamey Sapote
Medicinal Fruits

Garcinia
Herbal Wines
Thank You!