

The Green Economy: An Introduction to Economic Botany



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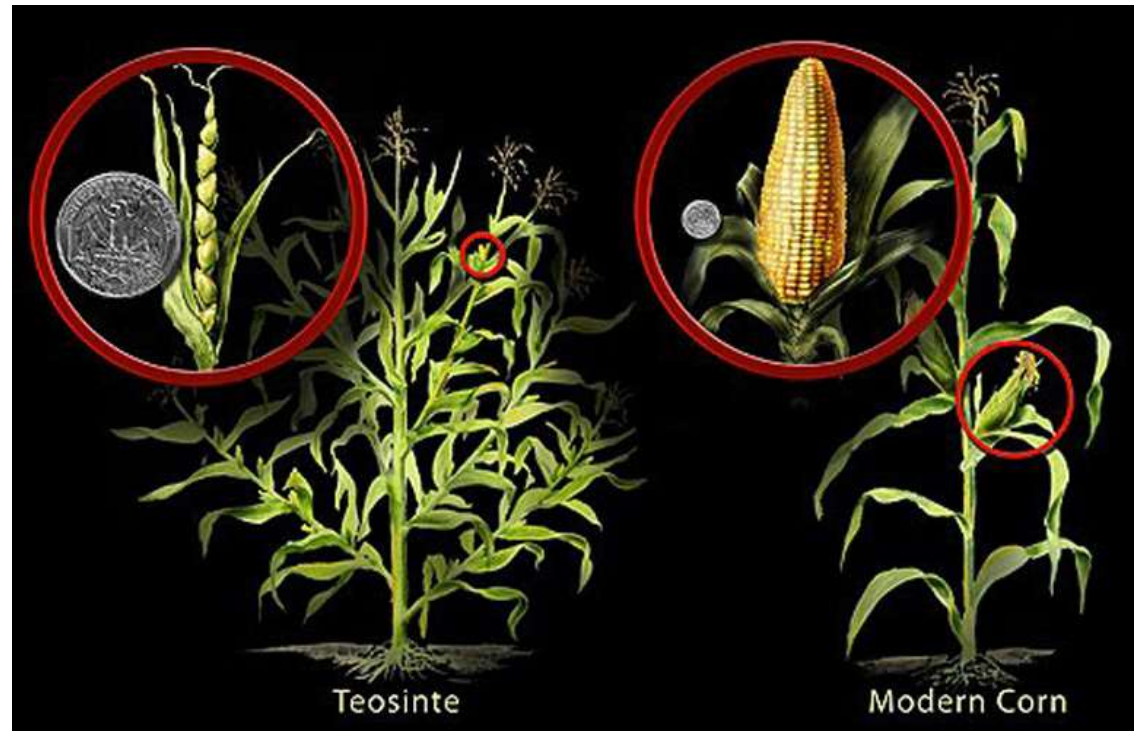
What is Economic Botany?

- - Study of plant use by humans (past & present)
- - Interdisciplinary: botany, anthropology, chemistry, medicine, economics
- - Major uses:
 - Food
 - Medicine
 - Shelter & materials
 - Fuel
 - Cultural & commercial applications



The Domestication of Plants

- - From hunter-gatherers to agriculture
- - Vavilov's centers of crop origin
- - Loss of genetic diversity from domestication
- - Gene banks conserve heritage varieties



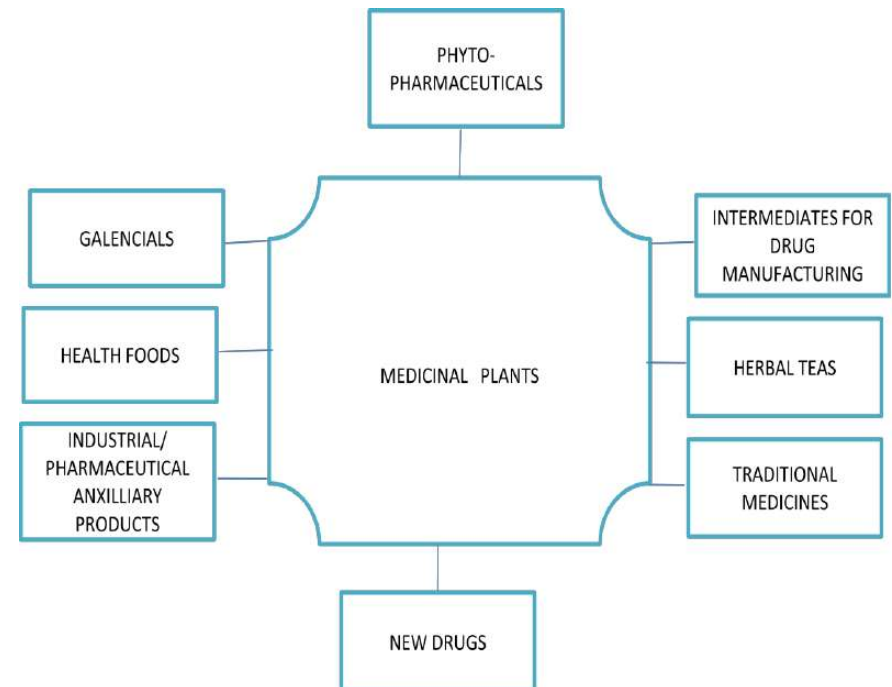
Plants as a Source of Food

- - Cereals:
 - Rice (*Oryza sativa*)
 - Wheat (*Triticum aestivum*)
 - Maize (*Zea mays*)
- - Legumes:
 - Groundnut (*Arachis hypogaea*)
 - Black gram (*Vigna mungo*)
- - Sugar crops:
 - Sugarcane (*Saccharum officinarum*)



Medicinal Plants & Traditional Knowledge

- - Herbal medicine traditions globally
- - Phytochemicals & secondary metabolites:
 - Ephedrine (Ephedra)
 - Curcumin (Turmeric)
- - Indian case studies:
 - Neem (*Azadirachta indica*) – antifungal, antibacterial
 - Tulsi (*Ocimum sanctum*) – immunity & anti-stress
- - Ethnobotany & indigenous knowledge



Industrial Plants

- - Fiber plants:
 - Cotton (*Gossypium* spp.)
 - Jute (*Corchorus* spp.)
- - Timber:
 - Teak (*Tectona grandis*)
 - Deodar (*Cedrus deodara*)
- - Resins & dyes:
 - Henna (*Lawsonia inermis*)
- - Rubber:
 - *Hevea brasiliensis*



