

Thailand Progress Report on Herbal and Medicinal Plants



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Introduction

- In Thailand, there are approximately of 1,800 species of medicinal plants that are known and utilized in communities, and more than 300 of them have been used in local markets.
- People mostly collect these medicinal plants from natural forests leading to the shortage of these plants.
- To solve this problem, Thai government has conducted “The 5-Year Master Plan of Herbal and Medicinal Plant (2017 – 2021)”.



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Introduction

- Its strategies cover 4 aspects:
 - (1) Industry development and marketing of herbs to international quality that include research and development.
 - (2) Quality control system and medicinal plants conservation.
 - (3) Promote the use of herbal medicine for healing and public health system



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Introduction

- (4) Strengthen the administration and public sector policies for the propelling of herbs with the economic picture of the country.
- Our strategies are similar to the ASEAN country progress report on Herbal and Medicinal Plants



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1. Industry development and marketing of herbs to international quality that include research and development.

- **Research and Development**
- **Production and marketing**
- **Private sector involvement**



Research and Development

○ Herbal Medicinal for acne therapy

The present study was conducted to evaluate antimicrobial activities of *Garcinia mangostana* Linn against etiologic agents of acne vulgaris and found that some active compounds of *G. mangostana* Linn, especially mangostin, had strong inhibitory effect on acne – inducing bacteria.



Research and Development

- **The Results of Virgin Coconut oil on Dyslipidemia**

Study findings that virgin coconut oil is one of supplementary can reduced lipid level in the blood.

- **Extraction evaluation Of hypoglycemia property and acute toxicity testing of extracts from *Tinospora crispa* stem**

The results found that *T.crispa* extracts from various sources showed different cardiotoxic effect and It was highly safe.



Research and Development

- **Bioactivity-guided separation of active compounds in *Acacia pennata* responsible for the prevention of Alzheimer's disease**

The result found that the importance chemical was tetracosane. Biological testing revealed that it was the most potent inhibitor β – amyloid aggregation. These results suggested that *A. pennata* may be beneficial for Alzheimer's prevention.



Research and Development

○ Biological activity of *Dolichandrone serrulata* flowers and their active components

Dolichandrone serrulata flowers are widely used as vegetables in Thailand. Biological studies of the methanolic extract of flowers have shown an antioxidant activity.



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Production and Marketing

- Production of herbal can be divided in to
 - Herbal raw materials
 - Traditional medicine
 - Herbal products
 - Herbal food and beverage
 - Extractive
 - Cosmetic
 - Supplementary food
 - Essential oils
 - Spa products



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Production and Marketing

- In 2016, the figure of import herbal medicine is quite high
 - Raw materials 19 million USD
 - Extracts 117 million USD
 - Essential oil 593 million USD
- Export herb and herbal extract approximately 24 million USD

(Source: Thailand Trading Report)

1 USD = 33.75 Baht



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Private sector involvement

- The private sector has taken part in the development of Thai herbs by research development of standard production. The government has supported this participation by awarding the award in 2016 namely “Prime Ministry Herbal Awards”- PMHA. There were 4 category of awards:



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Private Sector involvement



Thai Herbal Products CO., LTD.

- ❖ Its main activity is producing herbal medicine and health food supplement
- ❖ Thai herbal products was received the PMHA of herbal cosmetic.



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Private Sector involvement



Khaolaor Co. Ltd.
was received the PMHA of herbal
supplementary.



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Private Sector involvement



Bangkok Lab and Cosmetics Co. Ltd.
was received the PMHA of herbal
products.



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Private Sector involvement



Chao Phya Abhaibhubejhr Hospital was received the PMHA of production of herbal products.



2. Quality control and conservation

- Proposed a bill of herbal quality control and in the process of public hearing.
- Increase laboratory with ISO 17025 for determine raw material quality.
- Prepare reference standard for analyzing raw material.
- Prepare standard requirement in Thai Herbal Pharmacopoeia.



2. Quality control and conservation (continue)

- Botanical Reference Center on Thai Medicinal Plants.

Develop a rare or endanger afforestation program in the research station of RFD such as, *Salacia chinensis* L., *Diospyros rubra*, *Scaphium scaphigerum*, *Terminalia chebula*, *Terminalia bellirica*, *Canarium subulatum*, *Cinnamomum bejolghota*, etc.



3. Promote the use of herbal medicine for healing and public health system

- Issue requirement for every state hospital to give primary drug account for the common diseases such as, *Andrographis paniculate*, *Curcuma longa*, *Senna alata*, etc.
- Give an impetus to produce herbal medicine in state hospital with GMP standard



3. Promote the use of herbal medicine for healing and public health system (continue)

- Improve herbal medicine registration .
To make the process easier and faster.
- Encourage herbal medicine to be an ordinary home remedy for the people.
- Support folk healer network and folk healer registration.



(4) Strengthen the administration and public sector policies for the propelling of herbs with the economic picture of the country

- Mechanism for the development of herbal medicine potential.
- The main law of herbs and the National Policy Committee to drive herbal work.
- The development of herbal product champion at least 10 products.



(4) Strengthen the administration and public sector policies for the propelling of herbs with the economic picture of the country

- Research funding increased by 5,000 million Baht in five years.
- Private investment in research is 50-70 % by 2021
- Herbal town development in 4 sectors of Thailand: Chaing Rai province, Sakon Nakhon province, Prachin Buri province and Surat Thani province.



Conclusion

1. Medicinal Plants in Thailand were collected from natural forest about 70-80 %.
2. The research on HMPs in Thailand will focus on new knowledge and innovation.
3. In term of production and marketing, HMPs raw materials and products are quite highly in Thailand market.
4. Pharmaceutical Industries and other private institutions are quite active in the research and development of HMPs.
5. Thailand government are very concern about the conservation of HMPs.



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**Thank you
for your attention**