

PROSIDING PERSIDANGAN INDUSTRI HERBA 2015

Memperkasa jalinan industri herba
ke arah transformasi ekonomi

3-5 November 2015

PUTRAJAYA

Rantaian Nilai Industri Herba



Tumbuhan Ubatan & Beraroma (MAPs)



Pengetahuan Tradisi



Editor

O Asiah

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M Nik Musaadah

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DISTRIBUTION OF HERBS CULTIVATION IN PENINSULAR MALAYSIA

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ABSTRACT

In general, herbs are plants that are used for medicinal, food, flavoring and perfume purposes. Recently, there is an increase on the interest of herbal products in Malaysia. Under the National Key Economic Areas (NKEA), high value herbal products is listed under Entry Point Project 1 (EPP 1) focuses in improving quality and marketing effort. This includes in ensuring sufficient supply of raw material to fulfil market needs. However, there are issues on lack of information on location of the herbs cultivation in this country. This paper highlights distribution of herbs cultivation in Peninsular Malaysia. A census was carried out from September 2014 to February 2015 to identify location of herbs cultivators along the roads in Peninsular Malaysia. The information was gathered based on questionnaire and through face-to-face interview. A total of 462 cultivators were identified in Peninsular Malaysia. Most of the herbs were cultivated in Pahang, Selangor, Johor and Perak with a total number of 110, 83, 69 and 67 cultivators respectively. In Pahang the most cultivated herb was *Hibiscus sabdariffa* (roselle), meanwhile in Selangor, Johor and Perak the famous herb cultivated were *Piper betle* (sireh), *Aquilaria malaccensis* (karas) and *Citrus aurantifolia* (limau nipis), respectively. The findings will be useful as baseline information to further strengthen the industry by identifying the stakeholders and market structure.

Keywords: herbs cultivators, distribution, herbal industry, raw materials, Peninsular Malaysia

INTRODUCTION

Herbs are known as plants, seeds, or any plant parts that are used as medicine, flavoring and perfume purposes and even some are taken raw. According to Sahri (2012), herbs also have been recognized as an alternative medicine and economical resources. Recently there has been a shift in universal trend from synthetic to herbal medicine, which can be said as 'Return to Nature' (Sharma *et al.* 2008). The herbs became famous when there are perceptions that herbal

products have fewer or less harmful side effects compared to synthetic or non-herbal products. Most of the information on usage as well as benefits of herbs are only based on traditional knowledge from various ethnics inherited from the ancestors and only few are documented. Malaysia has been put as having a vast potential size in terms of herbal based market with the diversity of genetic resources, excellent tropical climate, increasing research and development interest, increasing demand for natural products and indigenous knowledge (Ibrahim 2006).

In current situation, many products had been made based on these local herbs and consumed as health supplements and not forgetting to prevent diseases. In order for the herbal industry to go upscale, a comprehensive research and clinical trial are required. This is critical not only before the production but also to monitor the quality and safety of the products in the market. Scientific evidence is needed to prove the quality of local herbs to obtain confidence from the other countries towards our products in Malaysia and fulfill their demand. Under the National Key Economic Areas (NKEA), high value herbal products is listed under EPP 1 that looks at improving the quality and efforts in marketing local herbal products. However, there is not much information on the location of the herbs cultivation and raw material. This study was conducted in order to identify the distribution of herbs cultivation in Peninsular Malaysia.

MATERIALS AND METHODS

Study Area

This study was conducted across the Peninsular Malaysia which included 12 states. The target respondents for this census study were all herbal cultivators found in the study area.

Data collection

Census was done based on a set of questionnaire developed to collect the information. The questionnaire contained 19 questions consisted of background of the company, name of the owner, address, contact number, gender, ethnicity and nature of business.

Data Analysis

The data was analyzed according to number of cultivators by states and herbal species that were cultivated by states. Further analysis was done using Chi-

square test to understand the correlation between the five most cultivated herbal species and ethnicity of the herbal cultivators.

RESULTS AND DISCUSSION

Table 1 showed the number of herb cultivators according to states in Peninsular Malaysia. Pahang recorded the highest number of herbs cultivators with 110 cultivators (23.8%). No cultivators were found in the Federal Territory. There were only 4 herbs cultivators discovered in Perlis.

Table 1. Number of cultivators according to states in Peninsular Malaysia

State	Number of cultivators (%)
Johor	69 (14.9)
Kedah	19 (4.1)
Kelantan	29 (6.3)
Melaka	27 (5.8)
Negeri Sembilan	28 (6.1)
Pahang	110 (23.8)
Perak	67 (14.5)
Perlis	4 (0.87)
Pulau Pinang	19 (4.1)
Selangor	83 (18.0)
Terengganu	7 (1.5)
Federal Territory	0 (0)
Total	462 (100)

In Pahang, the most famous cultivated herb species cultivated was *Hibiscus sabdariffa* (Roselle) with 52 cultivators, meanwhile in Selangor the most famous cultivated herb species was *Piper betle* (sireh) with 65 cultivators (Table 2). According to Table 2, the highest number of herb species cultivated in Peninsular Malaysia was *H. sabdariffa* with 88 cultivations compared to other species such as *Aquilaria malaccensis* (karas) and *P. betle* with only 70 and 80 cultivators, respectively.

Table 2. Types of herbs cultivated in states across Peninsular Malaysia

Species/ States	JHR	KDH	KEL	MEL	N.S	PHG	PRK	PER	P.P	SEL	TGG	Total
<i>Hibiscus sabdariffa</i> (Roselle)	15	2	1	2	0	52	6	2	6	0	2	88
<i>Orthosiphon stamineus</i> (Misai kucing)	4	1	6	2	5	2	8	1	7	2	0	38
<i>Eurycoma longifolia</i> (Tongkat ali)	4	0	8	0	3	9	1	0	1	0	1	27
<i>Clinacanthus nutans</i> (Belalai gajah)	5	0	4	0	3	5	5	1	5	1	0	29
<i>Ficus deltoidea</i> (Mas cotek)	7	1	1	0	4	2	1	0	1	6	0	23
<i>Labisia pumila</i> (Kacip fatimah)	2	1	1	0	0	0	0	0	1	0	0	5
<i>Momordica charantia</i> (Peria katak)	1	1	0	1	0	0	2	0	1	1	0	7
<i>Piper betle</i> (Sireh)	5	0	1	2	1	1	3	0	1	65	1	80
<i>Cymbopogon nardus</i> (Serai wangi)	4	1	3	2	0	2	1	0	1	0	0	14
<i>Morinda citrifolia</i> (Mengkudu)	2	0	0	0	0	1	1	0	0	0	0	4
<i>Phaleria macrocarpa</i> (Mahkota dewa)	4	1	5	0	3	2	5	0	0	0	1	21
<i>Senna alata</i> (Gelenggang)	1	3	1	0	1	2	1	0	6	0	0	15
<i>Centella asiatica</i> (Pegaga)	2	0	0	1	0	0	1	2	1	2	0	9
<i>Aquilaria malaccensis</i> (Karas)	17	1	4	5	15	12	13	0	0	3	0	70
<i>Citrofortunella japonica</i> (Limau kasturi)	0	0	0	6	0	5	5	1	0	0	0	17
<i>Citrus aurantifolia</i> (Limau nipis)	1	1	0	4	0	14	28	1	0	1	1	51
<i>Andrographis paniculata</i> (Hempedu bumi)	1	0	0	0	2	1	0	0	2	0	1	7
<i>Zingiber officinale</i> (Halia)	0	0	1	0	0	5	0	0	2	0	0	8
<i>Melastoma malabathricum</i> (Senduduk)	1	1	1	1	0	0	0	0	0	0	0	4
<i>Melastoma candidum</i> (Senduduk putih)	1	1	0	0	0	0	0	0	1	0	0	3
<i>Moringa oleifera</i> (Merunggai)	0	0	0	0	1	0	0	0	2	0	0	3
<i>Phyllanthus niruri</i> (Dukung anak)	0	0	0	0	2	0	0	0	1	0	0	3
Others	18	8	7	4	4	14	13	0	5	7	1	81

Source: FRIM's survey, 2014-2015.

Table 3 shows the correlation between the number of respondents based on herbal species and ethnicity. Based on the table, majority of the cultivators were Malay. According to reports on socio-economic status of farmers in North West Selangor area by Alam *et al.* (2010), variations in factors such as education, politic, wealth, health status, accession to technology, formal and informal capital were responsible for the variations in socio-economic characteristics of farmers.

It was noted that *P. betle* was mostly cultivated or planted herb by the Indian community and used as medicinal plants. It was also believed that the species is related to symbol of etiquette and civility among the community (Kumar 1999).

Table 3. Number of cultivators based on ethnicity and selected species

Species	Ethnicity					
	Malay	Chinese	India	Other	Foreigner	Unknown
<i>Hibiscus sabdariffa</i> (Roselle)	84	3	1	0	0	0
<i>Piper betle</i> (Sireh)	11	0	68	0	0	1
<i>Aquilaria malaccensis</i> (Karas)	52	9	3	0	0	6
<i>Orthosiphon stamineus</i> (Misai kucing)	31	5	1	0	0	1
<i>Clinacanthus nutans</i> (Belalai gajah)	25	3	0	0	0	1

CONCLUSION

As a conclusion, *H. sabdariffa* was the most cultivated herbal species in Peninsular Malaysia, which is in the state of Pahang. We also came to conclusion that most cultivators of this species were from the Malay community. Further studies must be carried out to identify the adaptive capacity of individuals or communities based on internal characteristics that were responsible for these variations.

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