

Yam of Thailand Species: Importance and Utilization

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Introduction

Yam, to the Thai people is not a traditional food. It is often served as sweet or as part of snacks. During the Second World War some species such as the *Dioscoreta alata*, *D. esculenta*, *D. hispida* were well known to villagers in north and north-eastern part of the country as a rice supplement.

When the Plant Genetic Resources was founded, Thai Plant scientists tried to collect some species which might support its research activities on yams. Several species have been identified but few were collected. The scientists hope to collect more species as Plant facilities improve.

Species and distribution

Studies on the distribution of the different species of yam in Thailand have been made throughout the country since 1927. Thirty-eight species were reported and identified. Their distribution ranged from sea level to as high as 1800 m. above sea level. All species are twinning vine and found on three types of locality, which are:

1. climber in evergreen forest,
2. climber on limestone rock, and
3. climber on bushes.

Half of the species reported are edible. Some species are not worth digging out because they have rooted too deeply to locate. Some varieties need special processing before consumption. Very few species are cultivated for marketing purposes. A list of the species reported are shown in table 1.

Importance and Utilization

In the past, yam grows wild and uncultivated. It was dug as needed for food. Nowadays, some species are grown in backyards for home use. From time to time, yam appeared in the market but its economical value can not be determined. Yam in Thailand are utilized as a minor source of carbohydrate. Some have been proved to have medical properties. Chemical extraction from some species were found to have potential use for insecticide. As food, normally, it is used after boiling or steaming and sometimes cooked with sugar-coconut milk. To preserve yams, they can be kept in dry chips and/or fresh for long a time. Few species need special process for releasing toxic substances from the tube.

Plan of future works

1. To survey, collect, identify and conserve germplasm.
2. To evaluate growth habit, economic record and nutritional importance.
3. To study method of cultivation and utilization.

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References

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Table 1. *Dioscorea* spp. found in Thailand

No.	Scientific Name	Distribution	Remarks
1.	<i>D. alata</i> Linn.	central, north	edible
2.	<i>D. arachidna</i> Pr. & Burk.	central, north	watery
3.	<i>D. birmanica</i> Pr. & Burk.	south	—
4.	<i>D. brevipetiolata</i> Pr. & Burk.	east	edible
5.	<i>D. bulbifera</i> Linn.	north-north-east south	edible
6.	<i>D. calcicola</i> Pr. & Burk.	south	
7.	<i>D. cirrhosa</i> Lour.	north-east	rare
8.	<i>D. collinsae</i> Pr. & Burk.	central	edible
9.	<i>D. craibiana</i> Pr. & Burk.	east	rare
10.	<i>D. cumingii</i> Pr. & Burk.	central	rare
11.	<i>D. daemona</i> Pr. & Burk.	south	
12.	<i>D. decipiens</i> Hook. f.	north	edible
13.	<i>D. depauperata</i> Pr. & Burk.	east	—
14.	<i>D. esculenta</i> (Lour.) Burk.	central, north south	edible
15.	<i>D. filiformis</i>	central, south	edible
16.	<i>D. garretti</i> Pr. & Burk.	north	rare
17.	<i>D. glabra</i> Roxb.	central, south north-east	edible
18.	<i>D. gracilipes</i> Pr. & Burk.	east, south	—

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19.	<i>D. hamiltonii</i> Hook. f.	central	rare
20.	<i>D. hispida</i> Dennst.	all	edible
21.	<i>D. inopinata</i> Pr. & Burk.	central	rare
22.	<i>D. japonica</i>	north-east	rare
23.	<i>D. kratica</i> Pr. & Burk.	east, south	edible
24.	<i>D. laurifolia</i> Wall.	south, north-east	medical prop.
25.	<i>D. membranacea</i> Pierre.	central, south	--
26.	<i>D. nummularia</i> Lamk.	central, south	edible
27.	<i>D. orbiculta</i> Hook. f.	south	--
28.	<i>D. oryzetorum</i> Pr. & Burk.	central, south north	edible
29.	<i>D. Panthaica</i> Pr. & Burk.	north	rare
30.	<i>D. paradoxa</i> Pr. & Burk.	central	edible
31.	<i>D. pentaphylla</i> Linn.	central	edible
32.	<i>D. pierrei</i> Pr. & Burk.	east, south	" edible
33.	<i>D. prazeri</i> Pr. & Burk.	central	poisonous
34.	<i>D. pseudo-nitens</i> Pr. & Burk.	north	rare
35.	<i>D. pseudo-tomentosa</i> Pr. & Burk.	central	rare
36.	<i>D. stemenoides</i> Pr. & Burk.	central	--
37.	<i>D. velutipes</i> Pr. & Burk.	north	rare
38.	<i>D. wallichii</i> Hook. f.	south	edible

