

# การจัดทำสารบบพันธุ์ไม้ผลที่นำเข้าประเทศ

## An Inventory of Fruit Varieties Introduced into Thailand

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Thailand is rich in species and varieties of fruits originally introduced from foreign lands. The importance of these introductions to Thailand's agricultural economy is readily apparent if one realizes that pineapple, sugar apple, papaya, grape, lychee and certain varieties of citrus and banana have their origin the outside. Plant introductions will continue to be of value in developing new crops for Thailand, and in improving established crops by introducing superior, well adapted varieties or by assembling new germ plasm for incorporation into the future varieties.

The Department of Agriculture have been the major agency for introducing and testing fruits as well as other plant crops and has the facilities of several experiment stations for this purpose. Kasetsart University has also introduced fruit plants from time to time. In 1962 the Horticulture Department under the auspices of the Kasetsart/Hawaii University Contract initiated an organized research project on the introduction, testing and selection of horticultural

crops (KU/UH Project No. 5). Besides the above institutions, other government agencies as well as private individuals have contributed to the present wealth of fruit varieties.

### CENTER FOR DOCUMENTING INTRODUCTIONS

Because different government agencies and private individuals have introduced fruit varieties independently without a central agency to document the introductions, it has been difficult to determine what fruit varieties are or are not available in Thailand. Lack of records of plantings and plant performance have often hindered the evaluation of introduced crops. Many introduced plants, possibly known to only a few people, have been scattered in private grounds or in unrecorded planting at institutions. Such uncoordinated introductions lead to unnecessary duplication of effort and to confusion in nomenclature and identification. In view of this, a committee on plant introduction was organized a few years ago. It consisted

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of officials of the Departement of Agriculture, Department of Forestry and Kasetsart University. One of the major functions of this group was to provide for the documentation of plant introductions. Miss Umpai Yongboonkird of the Botany Section of the Department of Agriculture at Bangkok was charged with receiving and recording information pertaining to all introductions made by various government agencies. The names of introduced plants with the pertinent information were to be recorded in four copies with the documentation office retaining two copies, one to be filed chronologically and the other alphabetically. This system would be extremely beneficial in maintaining a complete record of current and future introductions if it receives the full cooperation of every introducer.

#### INVENTORY OF PAST INTRODUCTIONS

The work outlined above on documentation is intended to cover the current and future but not the past introductions. Most fruit crops require several years to reach fruit bearing age. Many do not come true from seed, and therefore, may require the introduction of vegetatively propagated plants. Thus the cost of introducing and evaluating fruit crops is relatively high. In order to minimize the unnecessary expense of duplicating varieties already available in Thailand; to assemble as much information as possible about the introduced plants; and to possibly disseminate useful information, it is desirable to take stock of the present availability of introduced fruit varieties. Not only will an inven-

tory listing the location of plant, size of plant and general performance be useful to the government agencies involved in introduction work, but to present and prospective private growers as well. It will be of value also to foreign advisors and technicians with reference to future fruit introductions.

With the full cooperation of Mr. Samai Charoenrath of the Department of Agriculture, the writers embarked on the present project in early 1964, concentrating on the Department of Agriculture and Kasetsart University plantings. A questionnaire, which included the desired information, was prepared and sent out to the Chiefs of the Experiment Stations. The returns were very encouraging. In January, 1965, "on the spot" observation and evaluations were made at Maejo and Fang Stations in Chiangmai to complement the information received earlier. Certain information, such as the introducer, the country from which introduced and the date of introduction was not always available. The varietal identity of some plants was lost because maps were not made.

It will be noted from the accompanying table that a number of lychee varieties are now available in Thailand (Fig 1). At Fang and Piew Stations avocado trees are 40 to 50 feet tall. At Fang macadamia seedlings are 30 feet tall and are producing nuts (Fig.2). Persimmons, loquats, and plums appear to be fairly well adapted to the area. Such information, either on the availability or performance of introductions, enumerated in the table may be of interest to Thai agriculturists.

The assembled list of fruit species and varieties is by no means complete. It is hoped that the list can be revised and expanded from time to time. The writers solicit the contribution of information by other agencies and private individuals in the interest of advancing the knowledge of pomology of Thailand.

#### **SOME COMMENTS AND RECOMMENDATIONS ON INTRODUCTION AND TESTING OF FRUIT CROPS**

The work on plant introduction and evaluation may be completely nullified by: 1) insufficient heterogeneity of the crops, 2) inadequacy of locations for testing and 3) improper care of the introductions. For example, if a single variety of an entirely new crop is introduced and if this variety has a narrow range of adaptability, and erroneous conclusion might be drawn on the general adaptability and performance of the crop in question. For crops being tested for the first time, it may be preferable to introduce a heterogeneous seedling population instead of a selected clone or variety in order to insure a wide range of adaptability of the crop. Once a seedling population is well established, it is relatively easy to convert the heterogeneous population to the desired clones or varieties through vegetative propagation.

Instead of a haphazard trial of miscellaneous fruit crops, an intensive variety test of particular crops will often yield much more valuable results. The recent grape trials serve as a good example. During the past few years over 70 grape varieties having diverse

origins were imported for evaluation at Kasetsart University. Along with the observations on varietal behavior, tests on trellising, pruning, growth regulators, and pest control were conducted concurrently in order to learn as much as possible about grape culture in Thailand. Constant care, observation, and evaluation have led to the recommendation of only a few varieties of the 70-odd introduced varieties, but these few have been instrumental in the development of grape growing in Thailand into a profitable venture. If only a few varieties had been tested, the relative success of this new crop might not have been possible.

Frequently due to an insufficient number of plants or inadequacy of facilities for testing, an introduced crop may not be placed in its most suitable environment in Thailand. Suppose for lack of a suitable testing site in northern Thailand, an introduced lychee variety is grown in Bangkok. The inevitable conclusion would be that this variety does not do well in Bangkok. This should have been a more or less foregone conclusion because lychees are known to be a subtropical fruit. On the other hand, if the lychee were taken to Chiangmai its chances for adaptability would be greatly improved. Similarly, introduced avocados grown in Bangkok are probably doomed to failure, even though other areas such as Chandhaburi, Pakchong, Chiangmai, and peninsular Thailand may be suitable for this crop. In Suan Sema at Cha-Um an avocado tree with about a hundred fruits of excellent size and quality was observed.

The foregoing examples point to a need for testing introductions in several locations if the objective is to determine the adaptability in Thailand rather than in a particular area. Because experiment station sites are not unlimited, testing of introductions should be carefully planned with as wide a distribution as possible. Government agencies and research organizations involved in this type of work should cooperate fully in the interchange of plant materials and ideas. It may be rewarding to have some testing done by interested, progressive, successful and cooperative private growers.

There is no substitute for the proper care of plants in order to evaluate an introduced crop adequately. As a matter of fact improper care would contribute to the presentation of an erroneous conclusion regarding the adaptability of an introduction. To

provide for the proper care it is essential that specialists in pomology be developed. In particular they are needed at the experiment stations where the introductions are grown for evaluation. Fruit crops generally require several years to reach maturity and it will usually take that long to get to know a crop well enough to evaluate it properly. Thus, a degree of permanence of staffing at the stations is highly desirable if a meaningful program in fruit research is to be developed. Financial incentives and some tangible recognition of significant research accomplishments would help develop and retain dedicated and knowledgeable pomologists in the experiment stations outside of the metropolis and would provide the continuity in research that is so necessary in expanding the knowledge of pomology.

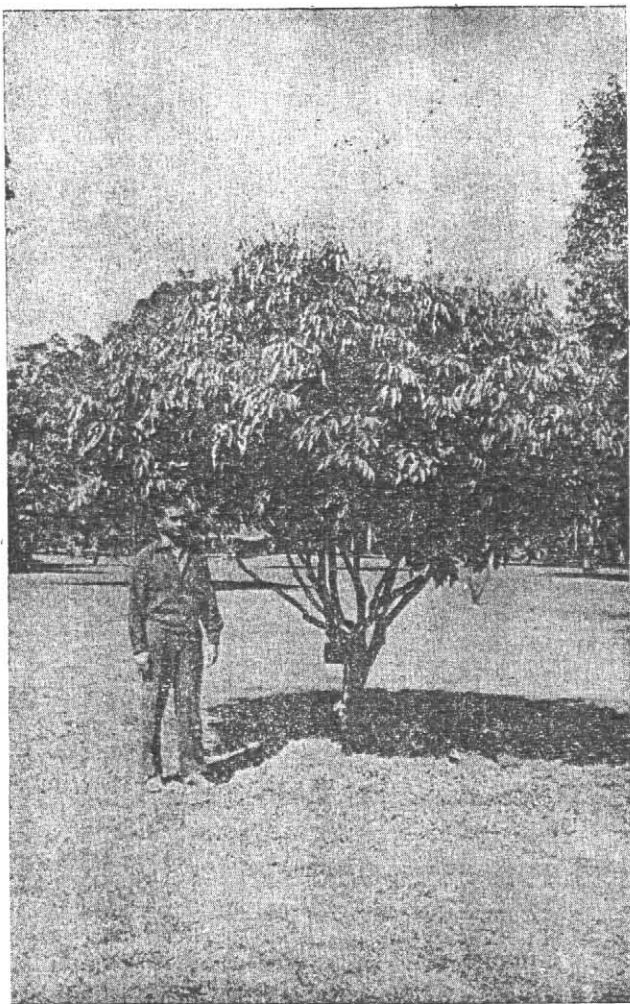


Figure 1. Brewster variety of lychee  
at Fang Station

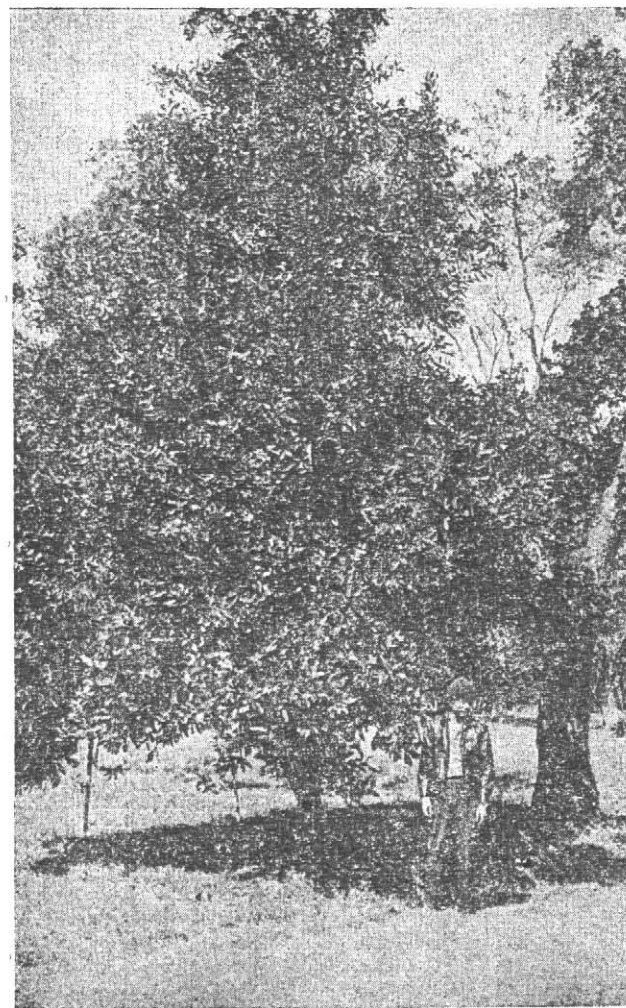


Figure 2. Seedling macadamia at Fang Station

Table 1. Fruit varieties introduced into Thailand.

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
ACEROLA <i>Malpighia glabra</i>	Seedling	Seed	1958	Anchern Chompoophot	E. Men-ninger Florida	KU Bangkhen	10	10	10	Fair			Yes	
AKEE <i>Blighia sapida</i>	Seedling	Seed	1958	Anchern Chompoophot	E. men-ninger	KU	2	2	10	Fair	1962	Poor		
APPLE <i>Malus sylvestris</i>	Tong Yee	Root cutting	5/55		Burma	Fang	12	0			1959	Poor		All died
	Seedling Tropical Beauty	Seed Budded Plant	1/65		" Queensland (Lampoon)	Mae Jo Fang	1 4	1 4	4 2	Poor				
AVOCADO <i>Persea americana</i>	Seedling Blackbird	Seed	3/55			Priew Fang	3	5 1	40	Fair Good	1961		Yes Yes	
	Mae Jo	"	5/56	Pisit Sasiplin	Philippines Mae Jo Sta.	"	1	1	50	Good	1960		Yes	Fruits annually
	Burna Blake	"	5/56	"	Philippines Burma	"	3	2	33	Fair	1960			Died
		"	8/59	Seemoon Bunrat	Mae Jo Sta. Philippines	"	1	0						Died
	Northrup	"	8/59	"	"	"	1	0						Died

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
AVOCADO <i>Persea americana</i>	Quntthe	Seed	8/59	Seemoon Bunrat	Mae Jo Sta	Fang	1	0					Scion wood later	Died
	Kampong	Budded plant	6/64	H. Kamemoto	R.A.Hamil- ton Univ. Hawaii	Pots at Pakchong	1	1	3					
	Monge	"	"	"	"	"	1	1	3					
	7315	"	"	"	"	"	1	1	3					
	Kaneko	"	"	"	"	"	1	1	3					
	Ohata	"	"	"	"	"	1	1	3					
	Popenoe	"	"	"	"	"	1	1	3					
	Ruehle	"	"	"	"	"	1	1	3					
	Sharwill	"	"	"	"	"	1	1	3					
	Mixed Seedling	Seed	7/64	"	"	"								To be used as rootstock
CACAO <i>Theobroma cacao</i>	Seedling	Seed	3/52	Burton	Indonesia	Bangkok Noi	43	20			6/54			
CHESTNUT, Ja- panese <i>Castania crenata</i>	Seedling	Seed	3/47		Japan	Fang	3	3	7	Poor	1950			
CHESTNUT, MA- LABAR <i>Pachira aquatica</i>	Seedling	Seed	1960		Australia	Mae Jo	1	1	5	Good				

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No.	No. Growing	Max. Height	Cond.	First Fruit	Qual.of Fruit		
CITRANGE <i>Poncirus trifoliata</i>	Troyer Citrange	Seed	5/63		Bangkok Noi	Nan	3	3		Fair				For root- stock
CITRUS, GENE- RAL <i>Citrus spp.</i>	Evon Everbear- ing	Marcot	9/63		Fang	Nan	40	39		Good				
	Sikan	Grafted plant	7/63		"	"	21	21		Fair				
	Pong Chiang Ka	Marcot	9/63		"	"	8	8		Fair				
	Sikan	Budded plant	1/56		Petchaboon	Fang	20	10		Good	1960		Yes	
	Unshu Fong	"	7/45		Japan	"	2	2		Fair	1949		Yes	
	Chiang Ka	Marcot	6/55			Mae Jo	3	1		Fair				
	Kimkan	"	5/55			"	1	1	5	Fair			Yes	
COFFEE <i>Coffea spp.</i>	(Arabica)	Seed		USOM	Hawaii	Bangkok Noi		3						



Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
OFFEE	(Robusta)	Seed		Dr. Pit Panyalakshana	Philippines	Bongkok Noi		3						
	(Liberica)	"		"	Indonesia	"		27					Yes	
	(Arabica)	"	1956	"	Bangkok Noi	Mae Jo	84	60	9	Good			Yes	
	S.288	"												
	(Arabica)	"	"		"	"	20	17	7	Good			Yes	
	Villalo - bos Catu- rra													
	(Robusta)	"	"		Indonesia	"	60	55	9	Good			Yes	
	(Arabica)	"	"		Philippines	"	20	15	7	Good			Yes	
	(Arabica)	"	"		Doy Sutep	"	20	8	7	Good			Yes	
	(Liberica)	"	"		Fang	"	40	30	8	Good			Yes	
EGGFRUIT <i>Encyrtus nervosa</i>	(Robusta)	"	"		"	"	40	34	10	Good			Yes	
	(Arabica)	"	"		"	"	20	18	6	Good			Yes	
EGGFRUIT <i>Encyrtus nervosa</i>	Seedling	Seed	1961	Anchern Chompoophot	E.menninger Florida	KU Bangkok	3	3	5	Poor				
FLACOURTIA <i>Flacourtia spp.</i>	Seedling	Seed	1961	Samai Chareonrat	Brazil	Bangkok Noi	6	6	3	Good			Yes	

Crop	Seedling or Variety	INTRODUCTION			Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From	No	No. Growing	Max. Height	Cond.	First Fruit	Qual.of Fruit		
GRAPE <i>Vitis</i> spp.	Christmas		8/53	Luang Saman Vanakit	Calif. U.S.	Hort.Dept. KU	2	2		Good	1954	Poor	Yes
	Golden Muscat		"	"	"	"	2	2		Good	1954	Poor	Yes
	Chasselas		2/56	Pit Panyalak	"	"	2	2		Good	1957	Fair	Yes
	Dore	Cutting	2/57	Pavin Punsri	U. of Calif.	"	2	2		Poor			Yes
	Delight		"	"	"	"	2	2		Poor	1958	Excel- lent	Yes
	Perlette	"	"	"	"	"							
	Black Rose	"	"	"	"	"	10	10		Very Good	1958	Good	Yes
	Flame Tokay	"	"	"	"	"	2	2		Poor	1958	Excel- lent	Yes
	Canner	"	"	"	"	"	2	2		Good			Yes
	Thompson	"	"	"	"	"	2	2		Poor	1959	Excel- lent	Yes
	Seedless												
	Ribier	"	"	"	"	"	40	40		Good	1958	Good	Yes
	Beauty	"	"	"	"	"	2	2		Fair	1959	Good	Yes
	Seedless												
	Cardinal	"	2/58	Sompong Tuntasattee	"	"	38	38		Good	1959	Good	Yes
	Muscat of Alexan- dria	"	4/58	Kamhang Thavisin	Calif.Nursery Fremont, Calif.	"	38	38		Good	1959	Good	Yes

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height	Cond.	First Fruit	Qual.of Fruit		
GRAPE <i>Vitis</i> spp.	Solonis	Cutting	4/85	Kamhang Thavisin	Calif. Nur - sery Fremont, - Calif.	KU	58	58		Good			Yes	For root stock
	× Othello 1613					Hort. Dept.								
	Red Mala- ga	"	"	"	"	"	2	2		Fair	1959	Fair	Yes	
	Muscat Gordo Blanco Zante	"	6/59	Pavin Punsri	Australia	"	2	2		Good	1963	Fair	Yes	
	Currant Purple Cornichon	"	"	"	"	"	2	2		Good	1960	Poor	Yes	
	Ohanez	"	"	"	"	"	2	2		Good	1960	Fair	Yes	
	Muscat	"	"	"	"	"	2	2		Good	1960	Fair	Yes	
	Hamburgh Red Prince	"	"	"	"	"	12	12		Good	1960	Good	Yes	
	Gros Colman	"	"	"	"	"	22	22		Good	1960	Good	Yes	
	Royal Ascot	"	"	"	"	"	22	22		Good	1960	Good	Yes	
	Black Hamburgh	"	"	"	"	"	2	2		Fair	1960	Fair	Yes	
	White Malaga	"	"	"	"	"	24	24		Fair	1962	Excel - lent	Yes	

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS					Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit	
GRAPE	July Muscat	Cutting	1/61	Pavin Punsri	U.of Calif. Davis, Calif.	Hort.Dept. KU	2	2		Fair			Yes
	Kandahar	"	"	"	"	"	2	2		Good			Yes
	Pearl of Csaba	"	"	"	"	"	2	2		Good	1961	Fair	Yes
	Gold	"	"	"	"	"	2	2		Poor	1961	Excel - lent	Yes
	Black Damascus	"	"	"	"	"	2	2		Good			Yes
	Italia	"	"	"	"	"	2	2		Fair	1962	Good	Yes
	Dattier	"	"	"	"	"	2	2		Good			Yes
	Danigue	"	"	"	"	"	2	2		Good			Yes
	Verdal	"	"	"	"	"	2	2		Good	1961	Poor	Yes
	Sultani - na Rose	"	"	"	"	"	2	2		Poor			Yes
	Olivette Blanche	"	"	"	"	"	2	2		Good			Yes
	Chaouch	"	"	"	"	"	2	2		Good			Yes
	Early Muscat	"	"	"	"	"	2	2		Fair	1961	Fair	Yes
	Prune de Cazeuls	"	"	"	"	"	2	2		Good	1961	Good	Yes

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No.	No. Grafting	Max. Height	Cond.	First Fruit	Qual.of Fruit		
GRAPE	Servant	Cutting	1/16	Pavin Punsri	U.of Calif. Davis,Calif.	Hort.Dept KU	2	2		Good	1961	Fair	Yes	
	Oizmar	"	"	"	"	"	2	2		Good			Yes	
	Hunisa	"	"	"	"	"	2	2		Good			Yes	
	Black Ferrara	"	"	"	"	"	2	2		Good			Yes	
	Cannon Hall Muscat	"	"	"	"	"	2	2		Fair			Yes	
	Rish Baba	"	"	"	"	"	2	2		Good	1962	Fair	Yes	
	Black Morocco	"	"	"	"	"	2	2		Fair	1962	Good	Yes	
	Early Niabell	"	1/62	"	"	"	2	2		Good	1962	Fair	Yes	
	Queen	"	"	"	"	"	2	2		Good	1962	Good	Yes	
	Thomus - cat	"	"	"	"	"	2	2		Fair	1962	Fair		
	Exotic	"	"	"	"	"	2	2		Good	1962	Fair	Yes	
	Diamond Jubilee	"	"	"	"	"	2	2		Good	1962	Poor	Yes	
	Khalili Moscato di Pasqua	" Root Cutting	" "	Siri Settabut	" Italy	" "	2 2	2 2		Fair Good	1962 1963	Fair Poor	Yes Yes	

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
GRAPE	Mataro	Cutting	2/62	Col.Tip Polpoke	Shino,Calif.	Hort. Dept.KU	2	22		Good	1963	Poor	Yes	
	Zinfandel	"	"	"	"	"	2	2		Good	1963	Poor	Yes	
	Alicant	"	"	"	"	"	2	2		Good	1963	Poor	Yes	
	Bouschet	"	"	"	"	"	2	2		Good	1963	Fair	Yes	
	Mission	"	"	"	"	"	2	2		Good	1963	Poor	Yes	
	Grenache	"	"	"	"	"	2	2		Good	1963	Poor	Yes	
	Rubired	"	"	"	"	"	2	2		Good			Yes	
	Cinsaut	"	1964	Pavin Punsri	Agr.de Mont. France	"	2	2		Fair			Yes	
	Madeleine Angevine	"	1964	"	"	"	2	2		Fair			Yes	
	Madeleine Angevine Oberlin	"	"	"	"	"	2	2		Fair			Yes	
	Seibel 9110	"	"	"	"	"	2	2		Good			Yes	
	Seibel 13047	"	"	"	"	"	2	2		Good			Yes	
	Delaware	"	1959		Japan	Mae Jo	1	1		Fair			Yes	
	Golden	"	"		"	"	11	11		Fair			Yes	
	Japan Spain	"	"		Spain	"	31	31		Fair			Yes	

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No.	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
GUAUA <i>Psidium guajava</i>	Seedling	Seed	12/61	Samai Chareonrat	Brazil	Bangkok Noi Fang	1	1	1	Good			Yes	
	Seedling	"	4/61		"	Fang	3	3	10	Good	1964	Good	Yes	White - fleshed
	Seedling	"	3/62		"	Mae Jo	5	5	8	Good		Poor	Yes	White - fleshed very pro- ductive
GUAUA, Straw- berry <i>Psidium cattlei- num</i>	Seedling	Seed	1958	Anchern Chom - poophot	E.Menninger Florida	KU Bangkhen	10	10	4	Fair				
JABOTICABA <i>Myrcisria cauli- flora</i>	Sabara		1962		W.F. Whitman Florida	Bangkok Noi Fang	2	3½	2	Good			Yes	
	Sabara		1962				1		1	Good				
LEMON <i>Citrus limon</i>	Eureka Rough Lemon	Marcot Seed	9/63 5/63		Fang Bangkok Noi	Nan "	100 99	81 97		Fair Fair				
	Maglino Argoula - to	Budded plant	8/63		"	"	1	1		Fair				
	Eureka	Marcot	6/55			Mae Jo	17	17	9	Good			Yes	

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		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
LIME <i>Citrus aurantiifo- lia</i>	Tahitian Lime	Budded plant	8/63		Bangkok Noi	Nan	20	16		Fair				
	Mexican Lime	Marcot	9/63		Fang	,,	10	10		Fair				
	Rangpur Lime	Seed	5/63		Bangkok Noi	,,	160	160		Fair				
LOQUAT <i>Eriobotrya jaho- nica</i>	Seedling	Seed	3/59		Japan	Fang	15	10	10	Good	1963	Variable	Yes	2 plants are of goo quality Flowered 1964 bu no frui set.
	Seedling	Seed	,,		,,	Mae Jo	10	1	7	Poor				
LYCHEE <i>Litchi chinesis</i>	Mae Jo No 1		1950			Mae Jo	10	10	30	Good		Poor	Yes	Large fru it, large seeds,sour
	Mae Jo No 2		,,			,,	7	5	40	Good		Fair	Yes	Sweeter than Mae Jo No.1
	Brewster	Marcot	5/58		Hawaii	Fang	1	1	10	Good		Poor	Yes	Flowers yearly,lar ge fruit large seed
	Groff	,,	,,		,,	,,	1	1	8	Fair				Flowered in 1965.
	?	,,	1958		,,	,,	1	1	8	Good	1963	Good		Large fru it, smal seed.
	?	,,	,,		,,	,,	1	1	7	Good				Flowered in 1965.
	Mauritius	,,	11/63		W.F. Whitman Florida	Pots.Bang- kok Noi	3	3	2	Good			Bud Sticks	
	Groff	,,	7/59		Hawaii	Bangkok	1	1	5	Good			Yes	



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		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
YCHEE (Con't)	Heung Lai	Marcot	11/60		Hawaii	Bangkok Noi	1	1	4	Good			Yes	
	Pot-Po- Hung	"	"		"	"	1	1	4	Good			Yes	
	Brewster	"	7/56 11/58		"	"	2	2	4	Good			Yes	
	Groff	"	6/64	H. Kamemoto	"	Pots at Pakchong	2	2						
	NoMaiChi	Budded plant	6/64	"	R.A. Hamilton U.of Hawaii	"	2	2						
	Kwai Mi	Marcot	7/64	"	H.Y. Naksone U.of Hawaii	"	4	4						
	Brewster	Marcot	9/64	"	"	"	2	2						
MACADAMIA <i>Macadamia terni- olia</i>	Seedling	Seed	5/56			Bangkok Noi	1	1	6	Good			Yes	
	Seedling	"	19/53	USOM	Hawaii	Priew		4	10	Good			Yes	
	Seedling	"	4/56		"	Mae Jo	5	3	10	Poor				
	Seedling	"	3/55		"	Fang	10	10	30	Variable	1961		Yes	Variable grwth few vigo- rous trees.
MANDARIN <i>Citrus reticulata</i>	Cleopatra	Seed	5/63		Bongkok Noi	Nan	30	28		Fair				
	Ladu		8/63		"	"	15	15		Fair				
	Mandarin Satsuma	Budded plant	7/63		Fang	"	5	5		Poor				

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat Material	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
MALAY APPLE <i>Eugenia malaccensis</i>	Seedling	Seed	6/64	H. Kamemoto	W. Yee U.of Hawaii	Pakchong in pots	13							
MANGO <i>Mangifera indica</i>	Irwin	Marcot	7/57	Roem Purnariksha	Philippines	Bangkok Noi	1	1	17				Yes	
	Zill	"	"	"	"	"	1	1	17				Yes	
	Kent	"	"	"	"	"	1	1	17				Yes	
	Keitt	"	"	"	"	"	1	1	17				Yes	
	Keitt	Grafted plant	4/47		Florida, USA	Fang	1	1	8	Good	1962	Poor	Yes	Large - fruit terpenti- ne smell
	Zill	"	"		"	"	1	1	6	Fair	1962	Poor	Yes	Terpenti- nesmell
MULBERRY <i>Morus nigra</i>			1958	Anchern Chompoophot	E.Menninger Florida	KU Bangkhen	1	1	6	Fair				
NATAL PLUM <i>Carissa grandiflora</i>			1958	Anchern Chompoophot	E.Menninger Florida	KU Bangkhen	1	1	6	Poor				
ORANGE, SOUR <i>Citrus aurantium</i>		Marcot	8/63		Bangkok Noi	Nan	2	2		Good				

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height	Cond.	First Fruit	Qual.of Fruit		
ORANGE,SWEET <i>Citrus sinensis</i>	Valencia	Marcot	9/63		Fang	Nan	45	40	(feet)	Fair				
	Washington	Budded	7/63		Bangkok Noi	"	34	34		Fair				
	Navel	plant												
	Valencia	"	7/57		USA	Mae Jo	6	4		Good	1961		Yes	
	Valencia	Macot	6/55			Fang	10	7	6	Fair			Yes	
	Washington	"	"			"	10	7	6	Fair				
PAPAYA <i>Carica papaya</i>	Navel													
	Solo-Select line 8	Seed	6/63	H. Kamemoto	R.A. Hamilton U.of Hawaii	KU Bangkhen	14	13		Fair	12/63			
	Solo-Line 1xline 5--F <sub>6</sub>	"	"	"	"	"	8	8		Fair	11/63			
	Kapoho Export type	"	"	"	"	"	14	14		Fair	11/63			
	Solo *7333	"	"	"	"	"	14	11		Fair	11/63			
	Large Fruited Solo	"	"	"	"	"	14	14		Fair	11/63			
	(Howry Warner Selection)													
	Deep Orange Fleshed Solo	"	"	"	"	"	14	14		Fair	11/63			

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond	First Fruit	Qual.of Fruit		
PAPAYA (Con't)	Line 9	Seed	7/63	H. Kamemoto	H.Y. Nakasone	KU	14	12		Fair	1/64			
	Red Solo	"	"	"	U.of Hawaii	Bangkhen	14	11		Fair	11/63			
	(22.12x	"	"	"	"	"	11	11		Fair	3/64			
	8-3)F <sub>4</sub>	"	"	"	"	"	3	3		Fair	1/64			
	23-18F <sub>9</sub>	"	"	"	"	"								
	(26-2x9-	"	"	"	"	"								
	16x9-29)	"	"	"	"	"								
	S <sub>2</sub>	"	"	"	"	"								
PASSION FRUIT, YELLOW <i>Passiflora edulis</i>	(26-2x14-	"	"	"	"	"	14	13		Fair	12/63			
	25) F <sub>3</sub>	"	"	"	"	"	13	13		Fair	2/64			
	(26-2x12-	"	"	"	"	"								
	4) F <sub>2</sub>	"	"	"	"	"	14	14		Fair	12/63			
	9-29x)26-	"	"	"	"	"								
	2x9-16)	"	"	"	"	"								
	S <sub>2</sub>	"	"	"	"	"	1	0		Fair				Died
	Golden Surprise	"	"	"	"	"								
	Seedling	Seed				Priew		3		Vigo- rous			No	
	Seedling	"	1957		Hawaii	Mae Jo	3	3		Good	Sterile 1958	Poor	Yes	Very pro - ductive fruit 3-4 - inches
	Seedling	"	6/46	H. Kamemoto	U.of Hawaii	KU Bangkhen	20	20		Vigo- rous				

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height (feet)	Cond.	First Fruit	Qual.of Fruit		
EACH <i>Crunus persica</i>	Seedling	Seed	8/47		Bangkok Noi	Fang	15	4		Poor	1950		Yes	Majority of plants died-poor fruit set
PEAR <i>Euryus spp.</i>	Tong Yee	Budded Plant	6/47		Burma	Fang	6	6	15	Fair	1951	Good	Yes	Fruit 3-4 inches brown, rough skin,sweet Variable - growth,not adapted.
	Tong Yee	Marcot	6/60		Fang	Mae Jo	28	28	10	Poor	1964		Yes	
PERSIMMON <i>Diospyros kaki</i>	Chiengrai	Root	6/48			Fang	10	8	15	Good	1950	Good	Yes	Fruit 2 in- ches flat
	Seedling	Cutting Seed	10/60		Chiengrai	Mae Jo	1	1	5	Very Poor			Yes	
POND APPLE <i>Annona glabra</i>	Seedling	Seed	9/60			Bangkok Noi	2	2	15	Good			Yes	
	Seedling	..	11/59		USA	Fang	6	6	12	Good	1963	Poor	Yes	
PONKAN <i>Citrus poonensis</i>	Tee-Jian	Marcot	9/63		Fang	Nan	100	85		Good				
	Tee-Jian	Budded plant	7/63		Bangkok Noi	..	10	10		Fair				
	Tee-Jian	Budded Marcot	1/59 6/5		Formosa	Fang Mae Jo	50 2	50 2		Good Fair	1964		Yes Yes	

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat. Material	Remarks
		Form	Date	By	From		No.	No. Growing	Max. Height	Cond.	First Fruit	Qual.of Fruit		
PLUM <i>Prunus Saliciana</i>	Tong Yee	Root	6/47		Burma	Fang	12	10	(feet) 12	Good	1954	Soft, sweet	Yes	Good flo. wering small fru. it, poor fruit set
	Santa Rosa	Budded plant	7/63		Bangkok Noi (B. Goto, Hawaii)	"	5	5	8	Good				
	Kelsey Methley	"	"		"	"	2	2	10	Good				
		"	"		"	"	1	1	9	Good				
RAMBUTAN <i>Nephelium lappa- ceum</i>	Jae Mong	Inarcho plant			Malaya	Priew		5	33	Good			Yes	
	Ta Wee	Marcot			"	"		4	27	Good			Yes	
SANKI <i>Citrus sanki</i>	Seedling	Seed			Bankok Noi	Nan	4	4		Fair				
SAPOTE, WHITE <i>Casintroa edulis</i>	Seedling	Seed	6/47		Burma	Fang	6	6	15	Good	1951	Good	Yes	Fruits an- nually, sweet
STRAWBERRY <i>Fragaria spp.</i>	Everbear- ing Sato	Plant	7/63			Bangkok Noi	100	100		Good	16/4		Runner	
		"	3/64		Fang	Mae Jo	10	6		Fair			Yes	
		"	5/54		Burma	"	21	14		Good			Yes	
	Japanese	"	"		Fang	"	25	19		Good			Yes	
	Wilson Prize	"	"				40	24		Good			Yes	

Crop	Seedling or Variety	INTRODUCTION				Planting Site	PLANTS						Avail.of Propagat Materials	Remarks
		Form	Date	By	From		No	No. Growing	Max. Height	Cond.	First Fruit	Qual.of Fruit		
STRAWBERRY Con't)	Silvan Beauty	Plant	3/55			Mae Jo	25	25		Good			Yes	
	Yusei	"	"	H. Kamemoto	Tokyo Agri. Univ. Japan	Hort. Dept. KU	4	4		Fair				
	Kogyoku (Sato)	"	"	"	"	"	4	20		Good				
	Fukuba	"	"	"	"	"	6			Poor				
	Hoka	"	"	"	"	"	4	3		Poor				
	Daner	"	"	"	"	"	3	2		Poor				
	Banizuru	"	"	"	"	"	4	2		Poor				
	Aga	"	"	"	"	"	5	0		Poor				
	Takane	"	"	"	Takii & Co. Japan	"	8	5		Fair				
	Daner	"	"	"	"	"	3	2		Poor				
	Kogyoki	"	"	"	"	"	11	8		Fair				
	Mae Jo	"	"							Good		Poor	Yes	
SURINAM CHERRY <i>Eugenia uniflora</i>	Seedling	Seed	1958	Anchern Chompoophot	E. menninger Florida	KU Bangkhen	2	2		Fair				

## สรุป

ในบรรดาไม้ผลที่มีความสำคัญทางเศรษฐกิจต่อประเทศในขณะนี้ มีไม้ผลอยู่มากมายหลายชนิดที่เป็นพืชต่างประเทศ เช่น ส้ม ลำไย สับปะรด ลิ้นจี่ น้อยหน่า มะละกอ ฝรั่งกล้วย ฯลฯ อาจจะกล่าวได้ว่า ไม้ผลที่สำคัญส่วนใหญ่เป็นไม้ผลที่นำเข้ามาจากต่างประเทศทั้งสิ้น เป็นข้อสนับสนุนที่เห็นได้ชัดว่าการนำพืชพรรณใหม่ ๆ เข้ามานั้นมีความสำคัญอย่างยิ่ง และจะมีความสำคัญอยู่ตลอดไป นอกจากจะเป็นการหาพืชพรรณที่ดีที่จะปลูกได้ในประเทศโดยตรงแล้ว ยังเป็นประโยชน์ทางการปรับปรุงพันธุ์ไม้ผลต่อไปในภายหน้าอีกด้วย

สถาบันต่าง ๆ ของประเทศได้เห็นความสำคัญในเรื่องนี้มานานแล้ว และได้ปฏิบัติอยู่ตลอดมา อย่างไรก็ตามการทําบันทึกพืชพรรณที่ได้นำเข้ามาในประเทศ ตลอดจนการติดตามผลการทดลองพืชพรรณนั้น ๆ ยังบกพร่องอยู่มาก เมื่อไม่นานมานี้จึงได้มีการจัดตั้งกรรมการขึ้นชุดหนึ่ง ประกอบด้วยเจ้าหน้าที่จากกรมกสิกรรม กรมป่าไม้ และจากมหาวิทยาลัยเกษตรศาสตร์ เพื่อทำหน้าที่เป็นศูนย์กลางในการบันทึกชนิดและพันธุ์ของพืชที่นำเข้าประเทศและติดตามผลของการทดลองปลูกพืชนั้น ๆ

แผนกวิชาพืชกรรม มหาวิทยาลัยเกษตรศาสตร์ในความร่วมมือของ ดร. H. Kamemoto ภายใต้สัญญาเกษตรศาสตร์/ฮาไวอิ ได้ริเริ่มโครงการนำพืชใหม่เข้ามาทดลอง (KU/UH Project No. 5) ใน พ.ศ. ๒๕๐๕ เพื่อป้องกันมิให้เกิดการนำไม้ผลที่มีอยู่แล้วเข้ามาอีก ซึ่งเป็นการเสียเงินและเสียเวลาโดยใช่เหตุ จึงต้องการทราบเสียก่อนว่าขณะนี้ ไม้ผลต่างประเทศที่ต้องการนำเข้ามาทดลองปลูกนั้นเรามีชนิดและพันธุ์ใดอยู่แล้วบ้าง ด้วยเหตุนี้จึงได้จัดทำสารบบพันธุ์ไม้ผลนั้นขึ้น โดยได้รับความร่วมมือเป็นอย่างดีจากกรมกสิกรรม กระทรวงเกษตรสารบบพันธุ์ไม้ผลที่รวบรวมขึ้นตามรายงานนี้ได้จากสถานีทดลองต่าง ๆ ของกรมกสิกรรมและจากมหาวิทยาลัยเกษตรศาสตร์ คงจะยังมีไม้ผลต่างประเทศอีกเป็นจำนวนมากนอกจากที่มีในสารบบนี้ที่กระจัดกระจายปลูกอยู่ตามสวนสถานเพาะชำหรือบ้านเรือนของเอกชน เป็นที่น่าเสียดายที่ไม่สามารถนำมารวมไว้ได้เนื่องด้วยความไม่สะดวกนานาประการ.



# การศึกษาเบื้องต้นทางอนุกรมวิธานของแมลงในประเทศไทย

## The Kasetsart University Entomological Collection

Ryoji Namba,<sup>1</sup> Sawarng Charoenying<sup>2</sup> and Kwanchai Sombatsiri<sup>3</sup>

An entomological collection is a basic necessity for any Entomology department of a university. It is an important working tool for both instruction and research. It helps to answer the basic question of "What Is the insect which is under consideration?" it is the contention of entomologists throughout the world that in order to have an outstanding Entomology department in a university, a good insect collection must be readily available. The Entomology section at Kasetsart University has been handicapped by the lack of a collection. During the late months of 1962 it was decided to rectify this situation by initiating an insect collection under the auspices of Project No. 8, Kasetsart/Hawaii University Contract, USOM Thailand.

This paper is progress report wherein the facilities, equipment, methods, and the present state of the KU Insect Collection are discussed.

### FACILITIES, EQUIPMENT AND METHODS

The depository of the insect collection is a room on the second floor of the Entomology and Plant Pathology Building, a relatively new concrete building. Because of the high humidity and high water table which prevails in Bangkok, it is important that the Collection be located on the second floor where it is relatively dry. The room is 10×12 m. in size and is well-lighted by ceiling neon lights.

Within the room are eight desks for faculty members and technicians. Six large work tables are scattered throughout the room in appropriate places. Two large card file cabinets with 50 drawers each are available but not in use as yet. A master file for all species found in the Collection is contemplated which would be an admirable but a monumental task. At present one of the cabinets with locks are available in which pertinent literature and equipment are kept.

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