



Welcome

Participants from International Vegetable Training Course 35th





TROPICAL VEGETABLE RESEARCH CENTER

**Department of Horticulture,
Faculty of Agriculture at Kamphaeng Saen**



KASETSART UNIVERSITY KAMPHAENG SAEN NAKHON PATHOM

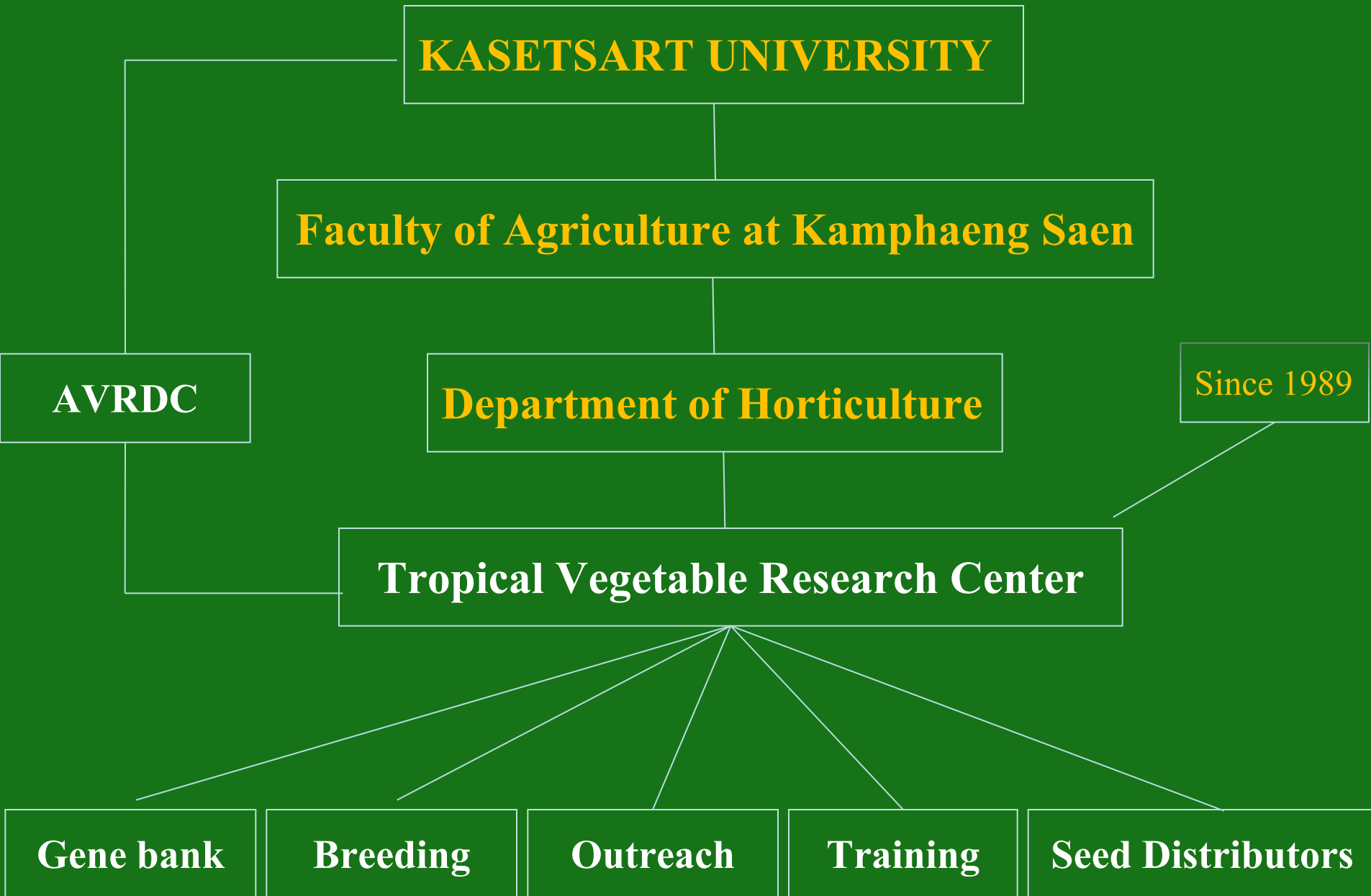
CHAMNONG SOMKUL

Agricultural Technical Officer, Senior Professional Level



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MISSION



- Tropical Vegetable Germplasm Gene bank
- Conduct Research and Development of vegetable crops and production Systems
- Coordinates and provides facilities for training course with AVRDC as well as teaching support with lecturers, scientists and students
- Provides good quality vegetable seeds to the farmers
- Transfer technology of vegetable research



TVRC ACTIVITY



1. Gene Bank/Germplasm Conservation



Objective



To prevent the loss of species by nature
and Germplasm Conservation.



Survey and Collection

[IVRC COLLECTION RECORD SHEET

COLLECTING INSTITUTE :	LATITUDE OF SITE :
COLLECTORS :	LONGITUDE OF SITE :
COLLECTION NO. :	ALTITUDE OF SITE :
DATE OF COLLECTION : YR/ MO/ DD	SITE TEMPERATURE : MAX MIN AVG
COUNTRY :	SITE RAINFALL : MAX MIN AVG
DISTRICT/PROVINCE :	CROP COLLECTED :
LOCATION OF COLLECTION SITE :	GENUS : SPECIES :
Name of village :	VARIETY/LOCAL NAME :
Nearest town :	MEANING :
Distance (in km) :	VARIETY NAME LANGUAGE :
Direction :	USAGE (specify) :
GROWER NAME :	



COLLECTION SOURCE :	SOWING MONTH :
1. Farmland 2. Backyard/home garden	TRANSPANT MONTH :
3. Farm store/shedding place 4. Village market	HARVEST MONTH :
5. Commercial seed shop (name) :	TOPOGRAPHY :
6. Agriculture institute 7. Boarding field	1. Swamp 2. Flood plain
8. Natural vegetation/wild	3. Level plain 4. Undulating
9. Others (specify) :	5. Hilly 6. Mountainous
GENETIC STATUS :	7. Others (specify) :
1. Wild	SITE :
2. Weedy	1. Level 2. Slope
3. Primitive culture/ancestral	3. Plateau 4. Depression
4. Improved OP culture	
5. Hybrid culture	SOIL TEXTURE :
6. Others (specify) :	1. Silty 2. Clay
SAMPLE TYPE	3. Highly organic (peat/muck)
1. Single plant 2. Pure line/cultivar	4. Others (specify) :
3. Mixture/population (close/pure line)	DRAINAGE :
4. Open-pollinated	1. Poor 2. Moderate
5. Others (specify) :	3. Good 4. Excessive
SAMPLING METHOD :	SOIL COLOR :
1. Random 2. Non-random (specify) :	1. Black 5. Yellow
MATERIAL: 1. Seed 2. Fruit 3. Pod 4. Others :	2. Dark brown 6. Red
CULTURAL PRACTICE :	3. Light brown 7. Other (specify) :
1. Shading : yes, no	4. Grey
2. Trenched : yes, no	STONINESS :
3. Direct seedling : yes, no	1. None 2. Low
4. Transplanting : yes, no	3. Medium 4. Rocky
5. Intercropping : yes, no	DISEASES AND PESTS :
6. Intensive : yes, no	
7. Rotation crop : yes, no	
8. Inaugured : by hand, fanow, overhead, drip	
HERBARIUM SPECIMEN : yes, no	
PHOTOGRAPH : yes, no	

NOTES: (Associated wild, weedy and crop species, special plant characters and morphological variation, status of genetic erosion, other observation).

Temporary number:



Pods/Fruits/Seeds

Registration

Microsoft Access - [Registration 2008 : Form]

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D:\Germplasm\Germplasm\Registration\Registration.mdb

COLLECTION RECORD SHEET 2008

1999|2000|2001|2002|2003
2004|2005|2006|2007

Temp number **SR08-001** Genus **Cucurbita** Germplasm Unit
TVRC Acc No Species **maxima Duchesne** Tropical Vegetable Research Center

AVRDC Acc No Usage **Fruit** Shifting **Topography**

Crops **Pumpkin** Latitude of site **Terraced** Site **Direct seeding** Soil texture **Transplanting** Drainage **Intercropping** Soil color **Intensive** Stoness **Rotation crop** Diseases and Pest **Herbarium** Photograph **Remark**

Donor name **Mr.Pirot Kongmuak** Longitude of site **Institute** **Altitude of site**

Country **Thailand** Collection source **Province** **Nakhon Pathom** **Site/District** **gbua Kamphaeng** Genetic status **Acquired date** **17/09/07**

Microsoft Excel - Seed registration 2008.xls

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Angsane New 14 B I U \$ % % 0.00 0.00

A	B	C	D	E	F	G	H	I	J	K	L
Temp number	Crops	Variety	Donor name	Institute	Country	Province	Site/District	Acquired date	Seeds amount	Collector	Collector m
SR08-001	Pumpkin	Mr.Pirot	Thailand	Nakhon	ThungbuaKamphaeng	17/09/07	30 seeds	Chamnong			
SR08-002	Pepper	Prik karieng	Ms Kalyane	Thailand	Chiangmai	17/09/07	8 g.	Kalyanee			
SR08-003	Bottle	Buknam	Thailand	Yasothon	Lueng nokta	17/09/07	20 seeds	Uthaiwan			
SR08-004	Bottle	Buknam	Thailand	Chiangmai	Martha	17/09/07	10 seeds	Uthaiwan			
SR08-005	Bottle	Nantao	Thailand	Yasothon		17/09/07	50 seeds	Uthaiwan			
SR08-006	Pumpkin	Kangkak	Thailand	Chiangmai	Martha	17/09/07	15 seeds	Uthaiwan			
SR08-007	Passiflora	Kratokrok	Thailand	Chiangmai	Martha	17/09/07	50 seeds	Uthaiwan			
SR08-008	Dill	Pakcheelao	Thailand	Yasothon	Kudchuan	17/09/07	20 g.	Uthaiwan			
SR08-009	Yard long	Thua Rak yao	Thailand	Chiangmai	Maerim	17/09/07	100 seeds	Uthaiwan			
SR08-010	Yard long	Thuafee	Thailand			17/09/07	50 seeds	Uthaiwan			
SR08-011	Yard long	Thuafee	Thailand			17/09/07	15 seeds	Uthaiwan			
SR08-012	Yard long	Thuafee	Thailand	Yasothon	Kudchuan	17/09/07	200 g.	Uthaiwan			
SR08-013	Soybean	Chiangmai60	Thailand	Chiangmai	Maerim	17/09/07	50 g.	Uthaiwan			
SR08-014	Sword bean	Thuafee	Thailand	Yasothon		17/09/07	4 seeds	Uthaiwan			
SR08-015	Ground nut	Tianan	Thailand			17/09/07	50 seeds	Uthaiwan			
SR08-016	Sesami	Ngadam	Thailand	Yasothon		17/09/07	100 g.	Uthaiwan			
SR08-017	Sesami	Ngakhaw	Thailand	Yasothon		17/09/07	30 g.	Uthaiwan			
SR08-018	Krajan		Thailand			17/09/07	20 g.	Uthaiwan			
SR08-019	Pakkeaddei		Thailand	Chiangmai		17/09/07	30 seeds	Uthaiwan			
SR08-020	Corn	Khawpodi khawkam	Thailand			17/09/07	30 seeds	Uthaiwan			

Draw AutoShapes

Ready NUM

start Germplasm managn... WelcomChungshing... mva/furuvau.ppt Registration Report Microsoft Office ... EN 1:29 PM



SR10-028

SR10-037

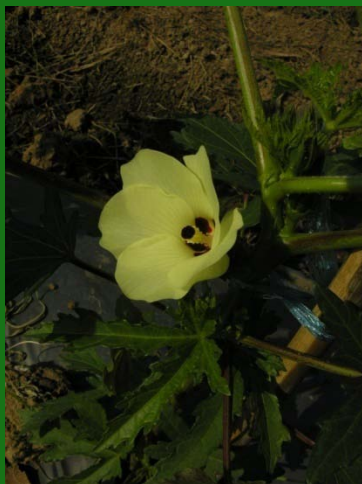
SR10-028 = Temporary number

SR = Seed Registration

10 = Year

028 = Sample

Characterization and Seed production



Extract and Clean



Seed Drying

6-8 % SMC



20 °C / 20 % RH

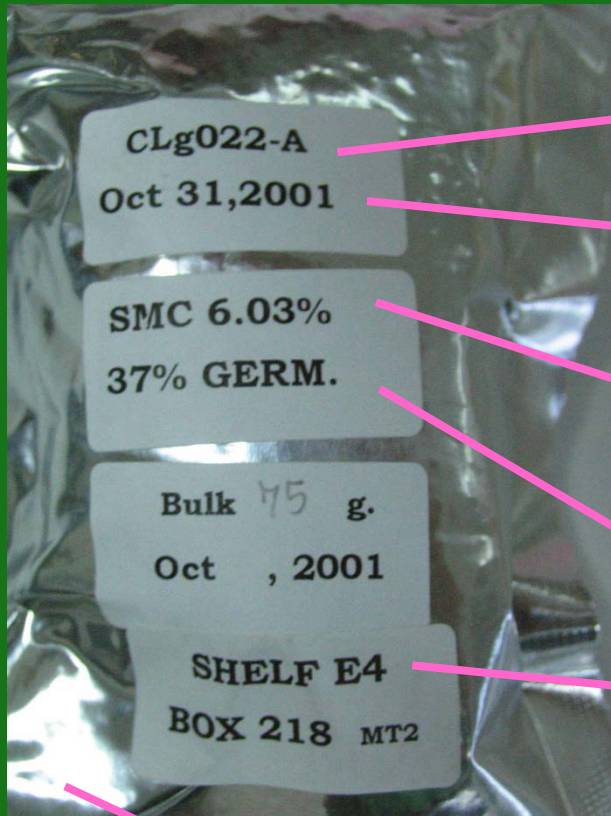
Sun Drying



Seed Storage

MT 5 °C ,45 % RH

ST 10 °C ,45 % RH



Accession No.

Date of packing

Seed moisture
content

Germination

Shelf and box
number

Laminated Aluminum Foil



15 years

Crops Collected



Pepper

Capsicum sp.



Eggplant

Solanum sp.



Tomato

Lycopersicon esculentum



Bottle gourd *Lagenaria siceraria* Standl.



Bitter gourd *Momordica charantia* L.



Pumpkin *Cucurbita moschata* Decne.



Snap bean *Phaseolus vulgaris* L.



Okra *Abelmoschus esculentus* (L.) Moench



Snake gourd *Trichosanthes cucumerina* Linn.



Smooth loofah *Luffa cylindrica* (L.) M.Roem.



Thai Melon *Cucumis melo* Linn



Winged bean *Psophocarpus tetragonolobus* (Linn) DC.



Ceylon spinach *Basella alba* Linn.



Amaranth *Amaranthus lividus*



Wild spider flower *Cleome gynandra* Linn.



Cock wood tree *Sesbania grandiflora* Desv.



Ocimum sp.



Sacred basil

Ocimum sanctum L.



Sweet basil

Ocimum basilicum L.



Ocimum sp.



Hoary basil



Ocimum basilicum L.f. var. *citratum* Back.



Shrubby basil *Ocimum gratissimum* L.

Toothache plant, Para cress

Spilanthes acmella L. Murr.

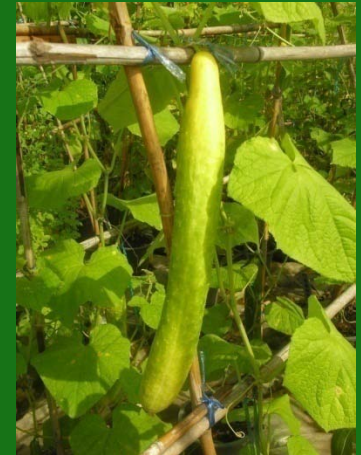
Feeling numb

Relieve toothache



Cucumber

Cucumis Sativus Linn.



Anged loofah

Luffa acutangula Roxb.



Blue pea

Clitoria ternatea L.



Lablab bean

Lablab purpureus (L.) Sweet

Dolichos lablab L.



Yard long bean

Vigna unguiculata subsp. *sesquipedalis*



Vegetable Soybean

Glycine max (L.) Merrill



Soybean

Glycine max L.



Mung bean

Vigna radiata L.



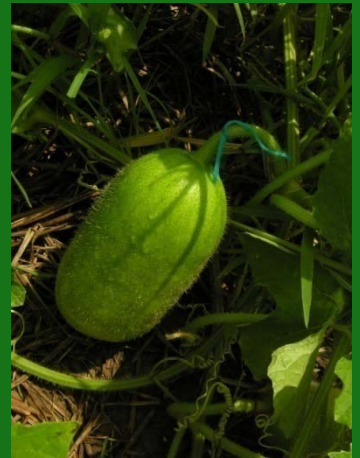
Ivy gourd

Coccinia grandis (L.) Voigt



Wax gourd

Benincasa hispida Cogn.



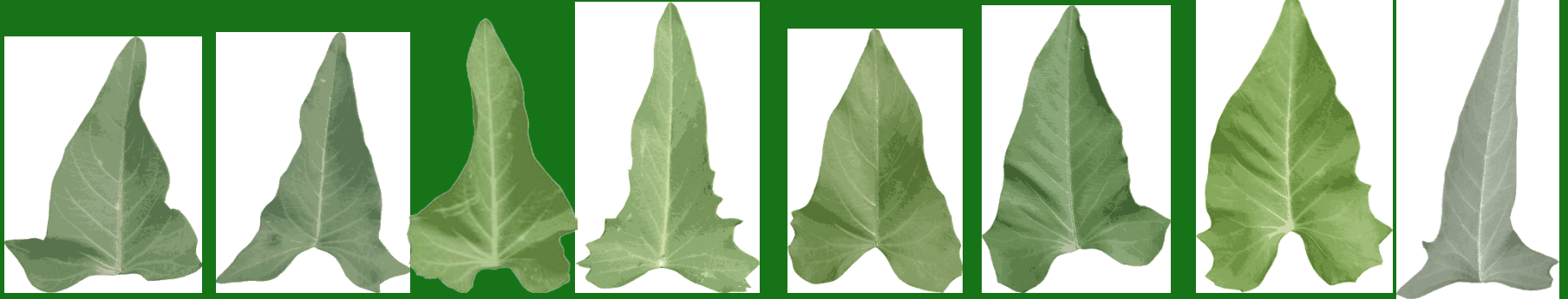
Roselle

Hibiscus sabdariffa L.



Water Convolvulus

Ipomea aquatica Forsk.



Stink Weed

Eryngium foetidum Linn.





Thai Indigenous Germplasm Conservation



Edible Part



Leaves and young shoots



Flowers



Seeds



Tuberous root shoots flow

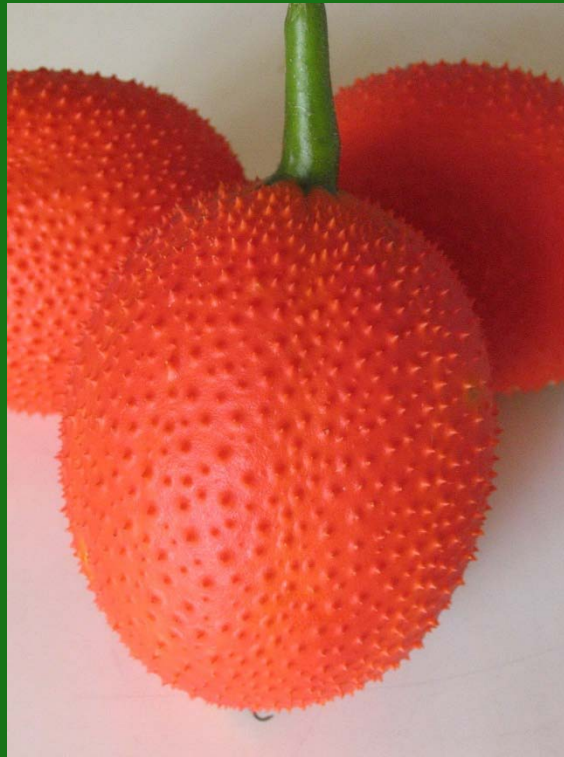


Pods/Fruits



Useful Properties

Thai Indigenous Vegetables



Okra *Abelmoschus esculentus* (L.) Moench



- Edible part : young pod
- Pectin in okra Help heal stomach ulcers
- Add collagen to the skin

Chinese Wolfberry

Lycium barbarum



Edible part : Fruits

High Beta carotene and vitamin E

Increase the number of white blood cells

Control blood sugar and Cholesterol



Chinese chives

Allium tuberosum Roxb.

Edible part :Leaves

Pectin help to clear fecal residues and clear
the fungus in the gut



Chrysanthemum

Chrysanthemum indicum Linn.



Edible part : Flowers

High Carotene ,eye care, nourish
the brain



Telosma minor Craib .

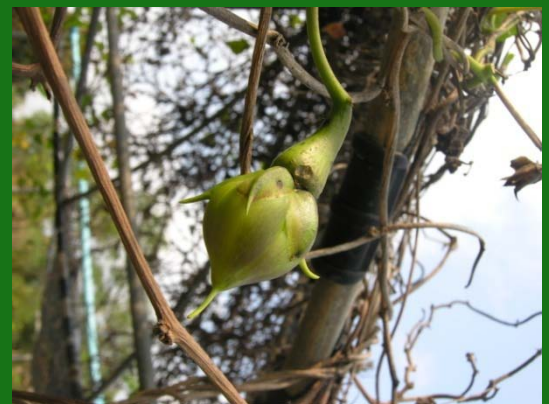


Edible part : Flowers and young pods

Nourish the lung and liver

Ipomoea

Ipomoea alba L.



Edible part: Flowers

Good Laxative

Gymnema inodorum (Lour.) Decne.



Edible part: Leaves and flowers

Lower blood sugar

Cucumber Tree

(*Averrhoa bilimbi* Linn.)



Edible part : Fruits

Vitamin C, Enhances hormone estrogen.

Leech lime

Citrus hystrix DC.



Edible part : Leaves and fruit

Leaves Control stomach gas

Use dandruff shampoo solution



Asiatic Pennywort

Centella asiatica Urban.

Edible Part : leaves

Nourish the brain

Relieve bruising

Helps build muscle and skin
wound healing

Spring Bitter Cucumber

Momordica cochinchinensis Spreng.



Edible part : Young shoots, young fruits and mature fruits

High Beta-carotene (anti-oxidant)

High lycopene (Help slow down aging, help in sight Reduce the risk of cancer)

Horse Radish Tree

Moringa oleifera Lamk.



Edible part : Leaves, flowers, pods and seeds

High Vitamin A, Vitamin C, Calcium, Protein, Potassium, Vitamin
B1 B2 B3

Saccharum officinarum Linn.



Edible part : Stems

Control Hypertension, Cholesterol, Lowering blood sugar

Stevia rebaudiana Bertoni



Edible part : Leaves

Provide up to 200-300 times sweeter than sugar.

Nourish the Pancreas



Herb Tea



Saccharum officinarum Linn.

+ Pandanus Leaves

Tea



2. Breeding Program

Improved Pepper CVMV Varieties Resistance

พริกที่ต้านทานสูงต่อเชื้อ CVMV



CA 1184

Breeding Program

Improved Pepper Anthracnose Varieties Resistance



Breeding Program

Pumpkin OP Selection Line



Breeding Program

Snake gourd OP Selection Line



3.Outreach



4.Training



5.Seed Distributors

Available varieties released



Tomato Seedathip #4

- Heat tolerance
- High Yield



Cherry Tomato154



Pepper TVRC 365



Hot pepper TVRC758

OP High Yield



TVRC 651



TVRC 500



Wax gourd TVRC 026



Winged bean TVRC 070



Sweet basil TVC 175



Sacred basil TVRC059

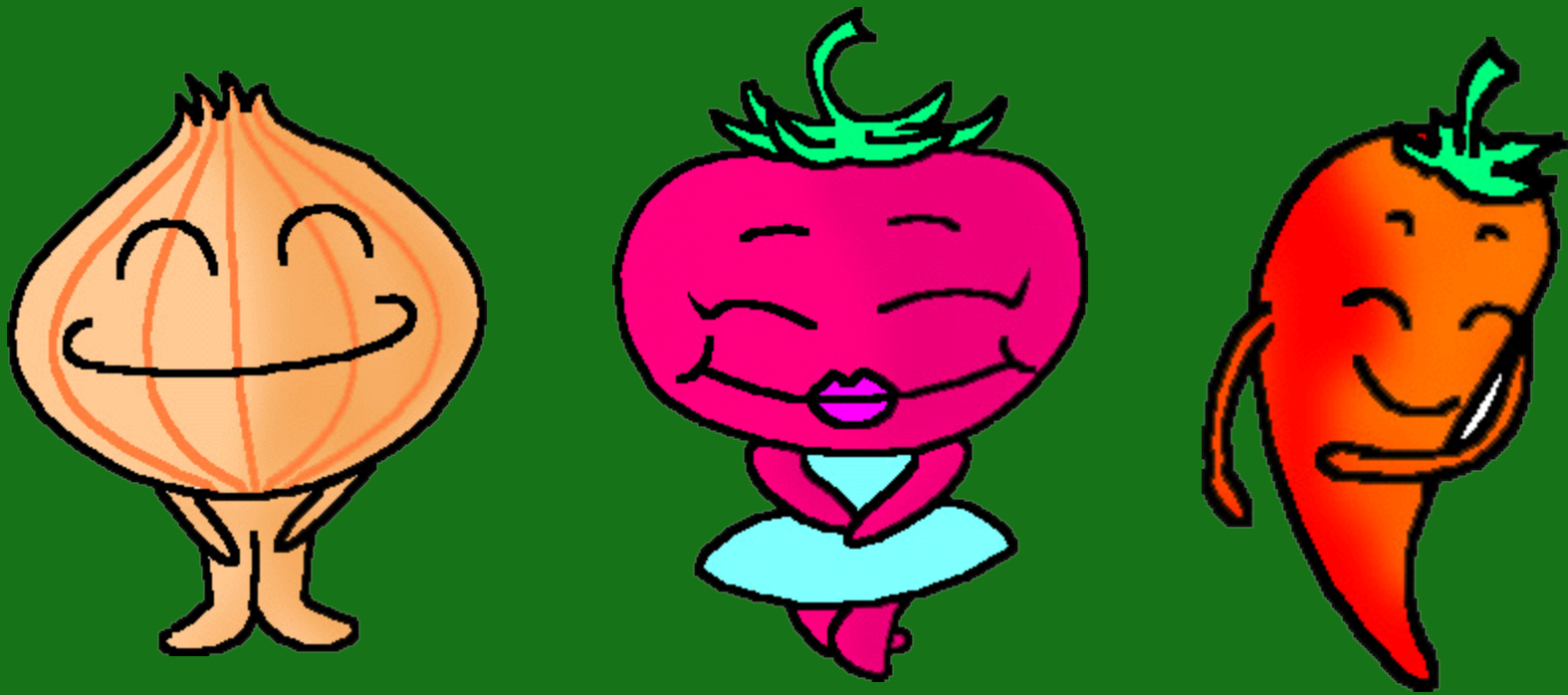


Vegetable Soybean

KPS 292

PAPAYA





ขอบคุณครับ

THANK YOU