Directorate General
Processing & Marketing of Agriculture Products

# Horticulture Products of INDONESIA

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# Horticulture Products of INDONESIA

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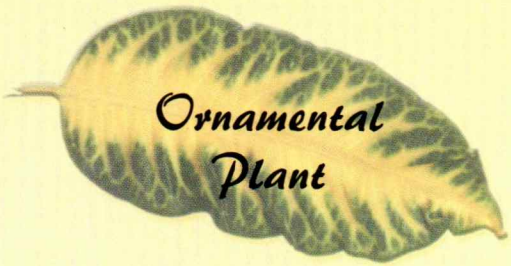

# PREVIEW

Indonesia as a vast and beautiful diverse country of more than 17,000 island is known for its diversity in ethics, local cultural, tribal languages, as well as products, particularly for tropical agricultural products.

Indonesia places the agricultural development as a priority and the prime mover of the national economic growth in the national economic development policy. From this point of view the welfare of a state to a large extent is dependent upon the prosperity of its agriculture. In order to increase farmers living standard efforts must be done by exposing and promoting their commodities, empowering their resources, by giving them opportunities to explore their capabilities.

Enhancement of competitiveness is one effort to fulfill domestic market and international market also. Efficiency, quality, and time delivery is the keywords of managing agriculture commodity. Besides product aspect, human resources as agribusiness actor should have core competence in negotiation and may capture market opportunities at the same time.

Indonesia has a strong comparative advantage in agricultural and maritime resources, but it is necessary to change the comparative advantage to be a competitive advantage. Therefore we need the new approaches in the agricultural development by Agribusiness System Development. In the System of Agribusiness, Marketing is one of important parts to build the strong competitiveness of Indonesia Agricultural Products.

The concrete effort to increase the Indonesia's product competitiveness is by doing intensive promotion. This activities is the means in the front line of marketing in order to expose the potential product, so the world market could be more aware to Indonesian product.

One of the effective promotion activities of Indonesia's horticulture to the world is by participating the International exhibition in several countries. The perceived opportunities that our country would get in those event is to increase Indonesia's image in the world, to promote agribusiness potential of horticulture, as well as trade and investment promotion and tourism encouragement.

Within this context, Directorate General of Processing and Marketing of Agricultural Product published "Indonesia's Horticulture in Promotion", a hand book which has content of the potential Indonesias Horticultural commodities – including its economic value of the last five years. We hope that this book could give general and clear information and guidance about Indonesia commodity of fruit, vegetable, ornamental plant, and medicine plant. We also apologize for any faults or mistakes in this book and we appreciate any comments.

Have a good read.

Jakarta, 2005

Directorate General Processing
and Marketing of Agricultural Products

## Highlights of Famous Indonesia's Ornamental Plant

### 1. *Dendrobium*

The genus Dendrobium, with an excess of 1500 species, has always been popular with orchid growers. It enjoys a wide distribution, from India and Sri Lanka, through Southeast Asia to New Guinea, Australia and the Pacific Islands. This genus is so complex, that is highly likely it will be dissected by botanists into a number of smaller genera.

Many hybrids have been developed in tropical cuntries, for both orchid enthusiats and the cut flower industry. Generally the flowers are shapely, and are from white to deep mauve. However other strains exit, with narrower segments, in colours from green, through to yellow, to rusty tones.

Production Center:

- DKI Jakarta Province (East Jakarta, West Jakarta, South Jakarta)
- West Java Province (District of Bandung and Sukabumi)
- DI Jogjakarta (Jogjakarta Municipality)
- Bali Province (Denpasar Municipality)

### 2. *Phalaenopsis spp*

Most people would be familiar with Phalaenopsis, known as the "Month Orchids". Many hybrids have been produced from the 50 or so wild species. It is arguably the most important commercial genus of orchids in the world. White Phalaenopsis hybrids are still one of the most popular fllowers throughout the world.

Production Center:

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- West Java Province (District of Bandung and Sukabumi)
- DI Jogjakarta (Jogjakarta Municipality)
- Bali Province (Denpasar Municipality)

## 3. *Vanda spp*

A large export *Vanda* industry has developed, using a handful of species in an extensive hybridising program. Vandas are often seen grown in large out door beds in lowland botanical gardens.

Production Center:

- DKI Jakarta Province
  (East Jakarta, West Jakarta, South Jakarta)
- West Java Province
  (District of Bandung and Sukabumi)
- DI Jogjakarta (Jogjakarta Municipality)
- Bali Province (Denpasar Municipality)

## 4. *Allamanda cathartica*

Family: Apocynaceae

The bright yellow-flowering Allamanda has become a garden staple in most parts of the tropics, usually as a woody climber but often, as a bushy shrub in a variety called *A. schotti*. As with other members of the Apocynaceae family, such as the Frangipani, all parts of the plant, including its milky sap, are poisonous. Even so the leaves, made into an infusion, are used in traditional medicine in South America as a purgative and its vapor is said to be a remedy for coughs.

Production Center:

- West Java Province
  (District of Sukabumi and Bandung)
- East Java Province
  (District of Malang)

## 5. *Heliconia rostrata*

Family: Heliconiaceae

Heliconias are native to the American tropics region and while a few can be found in seasonally dry locations, most come from moist or wet regions. The genus belongs to a larger taxonomic category called the Zingiberales. Growing from rhizomes, they have erect shoots, each composed of a stem and leaves. There are three basic leaf arrangements. The first one is the leaves are oriented vertically and have long petioles, like bananas. The second is the leaves are more or less horizontally positioned and have short petioles, like gingers. The third arrangement is on which the leaves stick out obliquely, like Cannas.

## 6. *Jasminum sp*

Family: Oleaceae

Jasmine is one of the most popular flowers throughout Southeast Asia, used for leis, religious offerings,and other floral decorations. Though there are several species, two are most frequently found in gardens and commercial nurseries, both with white flowers that may be single or double. *J. sambac,* the most common, is an evergreen climber, sometimes kept clipped to form a low shrub, while not a particularly attractive plant, the flowers are strongly scented and continuous, thus making it popular with gardeners. This variety flowers best when kept dry, well fertilized, and frequently pruned. *J. rex,* sometimes called Royal Jasmine, is a handsome climber with much larger and more beautiful star-shaped flowers which are, however, only faintly fragrant.

Production Center:

East Java Province (District of Bangkalan)

## 7. *Alpinia purpurata*

Family: Zingiberaceae

It has sturdy leaf stalks that rise from underground tubers with large leaves up to 30 cm long arranged along the upper stalks. The "flowers" - actually
bright red bracts that cover the small inconspicuous true flowers – rise prominently from the tops of the stalks, often reaching 30 cm or more in length. Old stalks die back after flowering, but new rooted plants sprout among the withered bracts.

Location : Jawa, Sumatera, Papua and Bali

## 8. *Hibiscus rosa-sinensis*

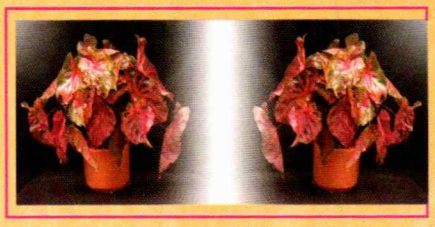
Family: Malvaceae

Hibiscus flowers range in size from small to enormous (some as much as 20 to 30 cm in diameter), occur in both single and double forms, and come in almost every color, from pure white through yellow and pink to ruby red. Though Hibiscus flowers last only one day, most varieties bloom so profusely there are nearly always several open at any time. In Indonesia it is called the "shoe flower", supposedly a reference to the fact that juice extracted from the petals was used to darken shoes. Both leaves and flowers are edible and sometimes used in traditional medicine.

## 9. *Ananas varigata*

This 3 ft (1m) tall species has basal leaves very like those of the common pineapple *(Ananas comusus)*. The leaf edges, the floral and fruiting parts often develop pink tints. Summer-borne, 6 in (15 cm) inflorescences of lavender to red flowers or partially enclosed by red bracts. The small, orange-red fruit rarely riches edible size but it is an interesting feature. The cultivars 'Tricolor' is the form in which this species is usually grown, with leaves edged and striped creamy white.

## 10. Caladium (Araceae)



Family: Araceae
Portualum "fancy-leaves Caladium": tuberous herbs with membranous leaves varying from 15-30 cm long, mostly

beautiful marked in many color and patterns, on slender petioles; wide hybridized The larger peltate-heartshaped leaves is called *Caladium bicol* blood. The lanceolate strap-leaved hybrids is *C. pituratum*.

Location in Indonesia: Java and Sumatra.

## 11. Sansiviera trifasciata Prin

Native to India, Indonesia and Africa, these 60 species of popular and resilient evergreen perennials are grown for their stiff, flesh, patterned, 12-24 in (30-60 cm) tall leaves. Stems of greenish white, slightly fragrant flowers appear in late springs in warm conditions. In Africa the fibers are used to make hemp.

## 12. Livingstonia rotundifolia Mart

This attractive fan palm from the Philippines and Indonesia grows to 80 ft ( 24m ). It has spherical scarlet fruit that eventually ripen black and will grow in moist soil in the tropics. The seed remains viable for a longer period than most palms, and it can be grown from seed in a deep habitat

## 19. *Canna edulis Ker*

Striking foliage with burgundy, red, green, yellow and/or gold stripes. Showy orange flowers. The plant gives a lush tropical appearance, best as an accent plant in the garden or in a container on the patio. It is also makes an excellent houseplant, which grows to an approximate 3' to 6' height.

This plant can be used as a bait for snails. Water regularly is needed

## 14. *Cycas revoluta*

Endemic to the islands of sourthern Japan, this palm-like species is a popular ornamental plant in Japan. It grows slowly with short, single or multiple trunks to 10 ft (3m) high with a compact crown or stiff pinnate leaves that have closely crowded, very narrow, spine tipped leaflets. It is the most widely cultivated Cycas in the world and is valued as a landscape subject, especially suited to courtyards and plazas. Slow growing, it is capable of living for 50 to 100 years or even more and it can be transplanted.

## 15. *Adenium obesum*

Family: Apocynaceae

In the wild this species can make a small tree of 12 ft (3.5 m) or more with swollen trunk and thick, crooked limbs, but in cultivation it seldom exceeds about 5 ft (1.5 m), with a sparse branching habit. Whorls of lance-shaped to oval, glossy leaves are grouped at the branch tips, but in winter it usually leafless. The very decorative trumpet shaped blooms are 1 ½ - 2 in (38-50mm) long and vary considerably in coloring: most popular is very pale pink or white with deepest pinkish red margins.

## 16. Kalanchoe

Family: Crasuulaceae

Pinnata (bryophylumm) "at plant": also know as " miracle leaf" or "curtain plant" because young plantlets are produced from the leaves, even in broken off, and pinned to window curtains; the fleshy foliage 5-20 cm long, grayish green and tinged with red at fir Location in Indonesia: Java and Sumatra.

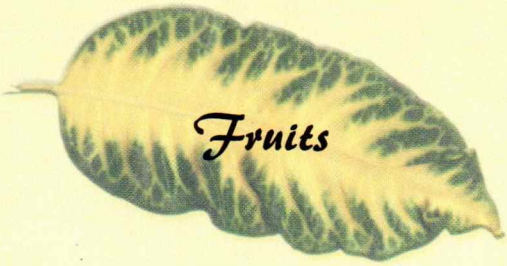
## 17. Rafflesia arnoldy

This is the largest species in genus, bears the world's largest flower. The plant shows nothing above the ground except its football - sized bud,which bursts from the stem of its host vine and unfolds as a single flower up to 3 ft (1 m) wide. Its fleshy petals surround central discs with circular hole revealing the stamens and pistils. It is mottled all over in dull yellow, creamy and mahogany red and smells of rotting meat to attract flies, which pollinate it. It has never been successfully cultivated.

## 18. Scindapsus

Family: Araceae

The most common variety of scindapsus is *Scindapsus aureus*. Scindapsus is a climber with aerial roots and stems, which can reach 6 ft or more. A moss stick makes an ideal support. The stems are sometimes allowed to trail from hanging basket or wall display. Pinch out tips to induce bushes, keep the plant well a way from draughts.



## Highlights of Famous Indonesia's Fruits

One of the many joys of Indonesia is the kingdom's stunning array of ambroisal fruits. The succulent sweetness, astonished various shapes, colours, sizes and heady perfumes delight not only visitors, but also send the Indies into raptures as each fruit comes into season.

Permanent local markets carry seasonal fruits as well as the other fruits which are available year round. As countries of tropical Asia modernise at an increasing pace, some of the less commercial varieties of fruit – those that must be eaten within a day or so of ripening, others that are too fragile to be transported without considerable care – are difficult to find in major cities.

### *1. Bananas*

### *(Musa sapientum L. Kuntz)*

Family: Musaceae

Evidence indicates that bananas are one of the oldest fruits known to mankind and it is possibly one of the oldest cultivated plant. Their place of origin is believed to have been the moist tropical region of southern Asia.

Bananas which usuallybeing consumed are from natural crosses

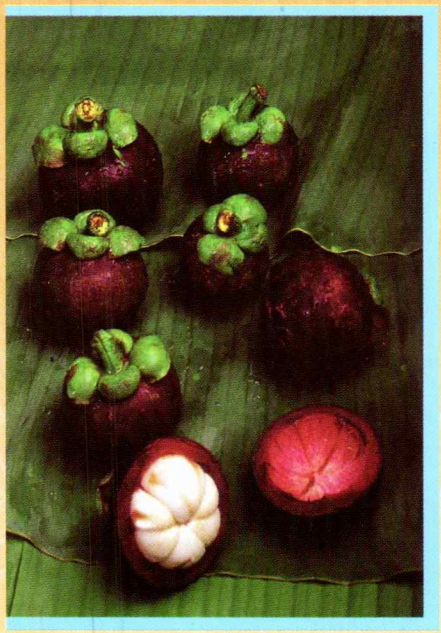
Production Center:

- DI Jogjakarta Province (Jogjakarta municipality, District of Gunung Kidul)
- East Java Province (District of Lumajang and Bojonegoro)
- North Sumatera Province (District of Deli Serdang)
- Riau Province (District of Indragiri Hulu)
- South Sumatera Province (District of Ogan Komering Ilir)
- Lampung Province (District of Lampung Timur)
- South Kalimantan Province (District of Kotabaru, HSU, and Banjar)
- East Kalimantan Province (District of Pasir, Kutai Kertanegara, Berau, and Kutai Timur, Bontang Municipality)
- South Sulawesi Province (District of Majene)
- Bali Province (District of Klungkung)
- Papua Province (District of Jayapura)
- NTT Province (District of Ende)

## 2. *Mangoesteen*
## *(Garcinia mangostana)*

Family: Guttiferae

Like the famous durian, the mangoesteen is a Southeast Asian native and bears fruit at the same time. The thick woody shell of the purplish-black mangoesteen encloses several segments of the most exquisite juicy white flesh, sweet yet slighty acid. Like many tropical fruit trees, the mangoesteen has its uses in folk medicine. The bark and skin are used to treat diarrhoea, and in Indonesia the fruit skin is used to control high fever, due to its chemical substance (xanthonin) which has characteristic as antibiotic.



Production Center:

- West Java Province (District of Tasikmalaya, Bogor, and Purwakarta)
- Central Java Provinc (District of Purworejo)
- DI Jogjakarta Province (District of Kulon Progo)
- East Java Province (District of Blitar and Trenggalek)
- Nanggroe Aceh Darussalam Province (District of Aceh Tamiang)
- North Sumatera Province (District of Tapanuli Selatan)
- West Sumatera Province (District of Limapuluh Kota, Pesisir Selatan, Padang Pariaman,and Sawahlunto)
- Jambi Province (District of Sarolangun)
- South Sumatera Province (District of Lahat)
- South Sulawesi Province (District of Bantaeng, and Polewali)
- Bali Province (District of Tabanan)
- NTT Province (District of Sumba Barat)
- Bengkulu Province (Bengkulu Municipality)
- Banten Province (District of Pandeglang)
- Bangka Belitung Province (District of Bangka and Belitung)

## 3. *Mango*
## *(Mangifera indica L)*

Family: Anacardiaceae

There are dozens of varieties of mango, varying in shapes, colors and flavour from sublime to unpleasant. All these fruits are hybrids, as most of the varieties native to the region have somewhat stringy flesh with a sour, almost turpentine, flavour. The seed found in the mango can be planted and it will sprout. Mango production centres are widely spread in several provinces, and each center has its own specific product.

Production Center:

- West Java Province (District of Majalengka, Indramayu, and Cirebon District)
- Central Java Province (District of Blora and Rembang)
- DI Jogjakarta Province (District of Gunung Kidul)
- East Java Province (District of Situbondo and Pasuruan)
- Nanggroe Aceh Darussalam Province (Sabang Municipality)
- North Sumatera Province (District of Tapanuli Selatan)
- Central Sulawesi Province (District of Toli-toli)
- South Sulawesi Province (District of Takalar and Jeneponto)
- NTB Province (District of Bima and Sumbawa)
- NTT Province (District of Sikka, Sumba Timur, Belu, and Ngada)
- Papua Province (District of Merauke)

## 4. Pineapples
## (Ananas comosus)

Family: Bromeliaceae

The pineapple, native to South America, is cultivated throughout tropical Asia. Several types of pineapple are found in the tropical region. Some are grown only for ornamental use, their decorative leaves making them a popular pot plant. The flower became enlarged and fusing together with the main leaves and stalk to create a fruit.

Production Center:

- West Java Province (District of Subang)
- East Java Province (District of Blitar)
- North Sumatera Province (Simalungun & Labuhan Ratu)
- South Sumatera Province (District of Prabumulih)
- Jambi Province (District of Muaro Jambi)
- Riau Province (District of Indragiri Hilir)
- West Kalimantan Province (District of Pontianak)
- North Sulawesi Province (District of Sangihe and Bolmong)

## 5. *Salacca*
## *(Salacca zalacca)*

Family : Palmae

The alternative English name for this fruit – snake fruit – is a good description of the appearance of its scaly brown skin. The salak grows on a short palm tree and is native to Indonesia. Salak fruit has a high tannin content and if the fruit not properly ripe, it can be unpleasantly astringent. Aficinados of the salak claim that those grown on the slopes of Bali's Mount Agung are the best to be found anywhere in Asia.

Production Center:

- DI Jogjakarta Province (District of Sleman)
- Central Java Province (District of Banjarnegara and Magelang)
- East Java Province (District of Bangkalan)
- North Sumatera (Padang Sidempuan Municipality)
- Bali (Distric of Karangasem)
- Riau Province (District of Kepulauan Riau)
- Lampung Province (District of Tanggamus)
- East Kalimantan Province (Tarakan Municipality)
- North Sulawesi Province (District of Sangihe)
- Papua Province (District of Jayapura)

## 6. *Orange*
## *(Citrus Sp)*

Family: Rutaceae

There are over 100 varieties of the common sweet orange, each varying in size, colour, and flavour orange grow well in many soil type The orange is believed to have originated in China, hence one species name, C.sinensis. For over years a number of varities have been developed. Although oranges imported from temperature countries are often found in tropical Asian markets, locally grown oranges can also be found. Commercially grown-trees can each bears several fruits at the same time.

Production Center:

- West Java Province (District of Garut)
- Central Java Province (District of Cilacap and Sragen)
- East Java Province (District of Ponorogo and Magetan)
- Nanggroe Aceh Darus-salam Province (District of Bireun)
- North Sumatera Province (District of Tapanuli Utara, Karo, Nias, Dairi, and Mandailing Natal)
- West Sumatera Province (District of Mentawai, Pesisir Selatan, Padang Pariaman, and Pasaman)
- Riau Province (District of Karimun)
- Jambi Province (District of Batanghari, Tebo, Tanjung Jabung Timur, and Jambi Municipality)
- South Sumatera (District of Musi Rawas and Muara Enim)
- Lampung Province (District of Tulang Bawang and Lampung Utara)
- West Kalimantan Province (District of Sambas)
- South Kalimantan Province (District of Barito Kuala, Tapin, , Banjar , HST, and Banjarbaru Municipality)
- Central Sulawesi Province (District of Donggala & Parigi Moutong)
- South Sulawesi Province (District of P.Selayar, Bantaeng, Bulukumba, and Pangkep)
- North South Sulawesi Province (District of Buton and Muna)
- Maluku Province (District of Maluku Tengah & Maluku Tenggara Barat)
- Bali Province (District of Karangasem and Bangli)
- NTT Province (District of TTS, TTU, ,Ende, & Kupang Municipality)
- Papua Province (District of Jayapura)
- Bengkulu Province (District of Bengkulu Selatan)
- North Maluku Province (Ternate Municipality)
- Gorontalo Province (District of Boalemo)

## 7. *Durian*
## *(Durio zibethinus)*

Family: Bombacaceae

Native to Southeast Asia, the fruit of the very tall durian tree is roughly the size and shape of a spiky football. Inside the tough skin are five white segments enlosing two or three portions of soft cream colored flesh, each wrapped around a single large being seed. Both the flesh and the seed (after boiling) are edible. Today's durian are almost all hybrids and each has its special characteristics. Durian is best consumed fresh, although inferior quality or over ripe fruit is also cooked to make sweetmeats such as dodol or made into jam.

Production Center:

- Central Java Province (District of Jepara)
- DI Jogjakarta Province (District of Kulon Progo)
- East Java Province (District of Madiun)
- Nanggroe Aceh Darussalam Province (District of North Aceh)
- North Sumatera Province (District of Tapanuli Tengah)
- Jambi Province (District of Bungo)
- Lampung Province (District of Way Kanan and Lampung Selatan)
- West Kalimantan (District of Sintang)
- Central Kalimantan (District of North Barito, East Barito, Murung Raya, Katingan, and Gunung Mas)
- South Kalimantan Province (District of Tabalong)
- East Kalimantan Province (District of West Kutai)
- Central Sulawesi Province (District of Toli-toli)
- North East Sulawesi Province (District of Kolaka)
- Papua Province (District of Jayapura)
- Bengkulu Province (District of North Bengkulu)

## 11. *Passionfruit*
## *(Passiflora sp.)*

Family: Passiofloraceae

The passionfruit is a climbing plant or bush.Two varieties of this Brazilian native are cultivated in a few areas of tropical Asia. Because of its limited geographical range, it is not very common.

The Indonesian variety *(P. edulis Sains)* has two forms – one with a purple skin called markisa and one with a yellow-orange shell with a mass of juicy translucent pulp suroounding edible greyish called konyal *(P.flavicarpa* Dng*)*. Markisa can be made as a drink which stand longtime.

Production center:

- North Sumatera Province (District of Karo and Toba Samosir)
- South Sulawesi Province (District of Sinjai and Polewali)
- West Sumatera Province (District of Solok)

## III. Highlighats of Famous Indonesia's Vegetable

### *1. Chilli*
### *(Capsicum annum L)*

Family: Solanaceae

Indispensible throughout tropical Asia today, the chilli is not a native but was introduced from the Americas by the Portuguese and Spanish. Before the advent of chillies, black pepper was used to give pungent flavour to food. During the past for centuries, the chilli has flourished and today is found in an almost bewildering variety of shapes, sizes, and pungencies throughout the region.

Chilli requires similar growing conditions to tomatoes, i.e warm tropical, frost free conditions. Capsicum grow on a small bush which needs fertilising and irrigation at all stages of growth. Chilli is very succeptible to extremes in weather. It is an excellent source of vitamin C, a good source of vitamin B6, E, and potassium.

Production Center:

- West Java Province (District of Cianjur and Bandung)
- Central Java Province (District of semarang and Magelang)
- Nanggroe Aceh Darussalam Province (District of Pidie)
- North Sumatera Province (District of Labuhan Batu)
- South Sumatera Province (District of Banyuasin)
- Lampung Province (District of Lampung Barat)
- North Sulawesi Province (Bitung Municipality)
- Papua Province (District of Jayapura)

## 2. *Shallots*
## *(Allium ascalonicum)*

Family: Lillaceae

Botanists differ as to whether the shallot is a modification of *A. cepa*, the larger brown or purplish skinned onion, or whether it is a separate species, *A. ascalonicum*. Shallots contains less moisture than large onions, and therefore preferred for pounding to make the spice paste which forms the basis of many Malaysian and Indonesia dishes.

Shallots needs a light, fertile, well drained soil in a sunny position. Shallots are grown from bulbes of cloves like garlic and require generous feeding as they need to be grown quickly. It is an excellent source of vitamin C and calcium, also vitamin A, potasium, niacin, phosphorus, iron, thiamine and dietary fibre.

Production Center:

- Central Java Province (District of Brebes)
- Nanggroe Aceh Darussalam Province (District of Pidie)
- North Sumatera Province (District of Tapanuli Utara)
- South Kalimantan Province (Banjarbaru Municipality)
- North South Sulawesi Province (Kendari Municipality)
- NTB Province (District of Bima and Mataram Municipality)
- NTT Province (District of Rote Ndau)

## 3. *Potato*
## *(Solanum tuberosum)*

Family: Solanaceae

Potatoes appear to have been cultivated long before the first explorers landed in America. While little is known about the history of the potato prior to this, Peruvian pottery shows representations of the potato as a cultivated plant at least as early as the second century AD. The tubers were probably in use for centuries before this.

The potato is a cool weather crop, but cannot tolerate much frost. Well distributed, moderate rainfall or irrigation is needed. A heavy, well drained loam, made up of clay, sand and decayed vegetable matter, is the best soil for healthy crops. The potato plants also require lots of light because the amount of sunlight the plant receives determines to a great extent, the rate of photosynthesis and the amount of carbohydrate available for growth of the tuber.

Potatoes are an excellent source of vitamin C and dietary fibre, a useful source of potassium, magnesium, niacin, and thiamine.

Production Center:

- West Java Province (District of Kuningan, Sukabumi, Cianjur, and Bandung)
- East Java Province (District of Pasuruan, Probolinggo, and Bondowoso)
- Nanggroe Aceh Darussalam Province (District of Aceh Tengah)
- North Sumatera Province (District of Simalungun)
- West Sumatera Province (District of Agam and Solok)
- Jambi Province (District of Kerinci and Merangin)
- South Sumatera Province (Pagar Alam Municipality)
- North Sulawesi Province (District of Minahasa)
- Central Sulawesi Province (District of Poso)
- South Sulawesi Province (District of Gowa and Tator)
- Maluku Province (District of Buru)
- NTB Province (District of Lombok Timur)
- NTT Province (District of Ende)

## 4. Cabbage
## (Celery cabbage)

Family: Cruciferae

Cabbage is grow under a wide variety of conditions primarily requiring of high moisture content for maximum growth. If the cabbage is subjected to heavy rains following a dry season or when irrigation results in an uneven distribution of water, the cabbage may burst. They can be grown in all types of soils so long as it moist and fertile. Cabbages grow best in slightly acid soils.

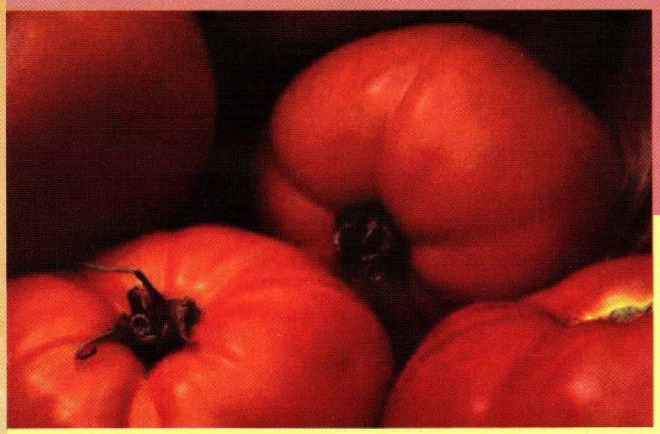
The cabbage belongs to a form of species called the *Brassica oleracea* or the Crucifer family. This particular family is characterised by a compact head formed by the leaves. Its close relatives include collards, cauliflower, broccoli, and brussels sprouts. Cabbage is an excellent source of vitamin C and dietary fibre.

Production Center:

- West Java Province (District of Kuningan, Sukabumi, Cianjur, and Bandung)
- East Java Province (District of Probolinggo and Bondowoso)
- North Sumatera Province (District of Simalungun)
- West Sumatera Province (District of Agam)
- Jambi Province (District of Kerinci and Merangin)
- South Sumatera Province (Pagar Alam Municipality)
- North Sulawesi Province (District of Minahasa)
- Central Sulawesi Province (District of Poso)
- South Sulawesi Province (District of Gowa and Tator)
- Maluku Province (District of Buru)
- NTB Province (District of Lombok Timur)
- NTT Province (District of Ende)

## 5.Tomatoes
## (Lycopersicon esculentum)

Family: Solanaceae



The tomato is a warm season plant which is reasonably resistant to heat and drought, and grows under a wide range of climatic and soil conditions. Tomato seeds can be sown and will reproduce new plants. Tomatoes grow best when the day temperature is between 15-30 degree celcius. Tomatoes must have full sun and need warm, well drained, fertile soil. In most cases tomato plants must be supported with stakes or tied up. A tomato plant requires 3-4 months from the time of planting to produce the first ripe fruit. It is an excellent source of vitamin C, a useful source of vitamin E, with some vitamin A and dietary fibre.

Production Center:

- West Java Province (District of Kuningan, Sukabumi, Cianjur, and Bandung)
- East Java Province (District of Probolinggo and Bondowoso)
- North Sumatera Province (District of Simalungun)
- West Sumatera Province (District of Agam)
- Jambi Province (District of Kerinci and Merangin)
- South Sumatera Province (Pagar Alam Municipality)
- North Sulawesi Province (District of Minahasa)
- Central Sulawesi Province (District of Poso)
- South Sulawesi Province (District of Gowa and Tator)
- Maluku Province (District of Buru)
- NTB Province (District of Lombok Timur)
- NTT Province (District of Ende)

## 6. Mushroom (*Agaricus bisporus*)

Family: Agraiceae

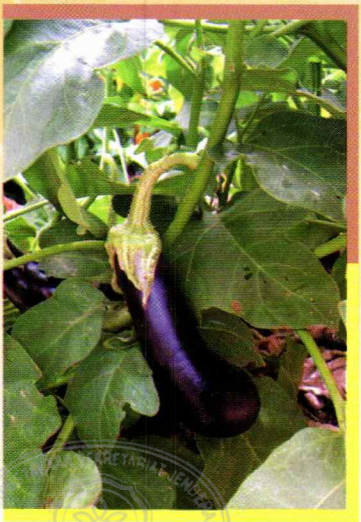
Three systems, shelf, tray and bag, is used for mushroom growing. Tray system are used by larger growers and is the major production method. The bag system, which allows for a smaller financial outlay is becoming increasingly popular.
This method also helps to alleviate pest and disease problems by allowing fast and easy removal of infected bags.

Production Center:

- West Java Province (District of Karawang, Kuningan, and Sukabumi)
- DI Jogjakarta (District of Sleman)
- East Java Province (District of Pasuruan)
- North Sumatera Province (District of Simalungun)

## 7. Eggplant (*Solanum melongena*)

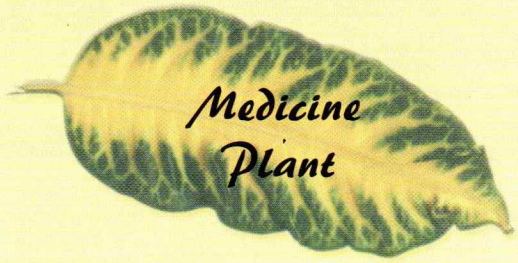
Family: Solanaceae



Eggplant is a warm season vegetable which is extremely sensitive to frost. Eggplant needs plenty of fertiliser because of its long growing period and prolific fruit production.
The most widespread Asian variety is long and slender. Although there are round eggplants ranging in size from the tiny pea-like bitter eggplants *(S. torvum)* which grow wild, up to those the size of a tennis balls. Eggplants have a smooth, waxy skin, in colours ranging from deep purple through pale purple, with pale green, white and even bright yellow-skinned varieties.
Eggplants are good source of dietary fibre, contain some vitamin C and pottasium.

Production Center:

- West Java Province (District of Kuningan, Sukabumi, Cianjur, Bandung)
- East Java Province (District of Bondowoso)
- North Sumatera Province (District of Simalungun)
- Jambi Province (District of Kerinci)



## IV. Highlights of Famous Indonesia's Medicine Plant

### *1. Aloe vera*

Family: Liliaceae

Aloe vera had been used for many centuries. The Greek people at 333 BC identified the *aloe vera* as a medicine stem, meanwhile China people name it as Auci. The *Aloe vera* came from Canary Island western of Africa. In each 100 gr of *Aloe vera* contains water (99.51%), fat (0.067%), carbohydrate (0.043%), protein (0.038%), vit. A (4.594 IU), vit. C (3.476 mg).

Gel from the leave of *Aloe vera* is very useful to cure the wound, also as a drink for vitality. Its use as a medicine plant covers various disease such as; diabetes, cough, anemia, influenza, rheumatic and sinusitis. *Alue vera* can be used as subtance in various products of skin maintenance like moisturizer cream, scrub creme, and also for hair maintenance.

Production Center:

- West Java Province (Bogor District)
- West Kalimantan (Pontianak City, Pontianak District)

## 2. *Curcuma domestica* Val

Family: Zingiberceae

The plant which is called turmeric needs good drainage and moderate humidity. Turmeric has rhizome which can be used as a medicine for diarrhea, blood cleaner and ulcer. It is also used as cooking spices.
Productions centre :
Java, Sumatera, Nusa Tenggara, Sulawesi & Maluku.

## 3. *Zingiber officinale* Rosc

Family: Zingiberceae

This plant called ginger originated from Southeast Asia and for centuries has been used for cooking spices and medicinal herb for drink. It's chemical characteristic which is warm has specific aromatic scent and it can stimulate blood circulation. It also can be used as an expectorant, dioforetic, antitussive, antiemitic, anti septic, anti inflamatory, and reducing cholesterol.

## 4. *Alanguas galanga* (L) Stuntz.

This plant which is called galangale needs goods drainage for its creeping root. Its rhizome is very useful to cure diarrhea and skin problems like itching and ring worm.
Production center :
Sumatera, Java, Nusa Tenggara

## 5. *Curcuma xanthorhiza* Roxb

Its rhizome has buds which can sprout in medium acidity soil. As a medicine plant its use among others are for diarrhea, cough and as a substance for medicinal herb drink.
Production center :
Java, Madura

# Export-Import Volume and Value of Horticulture

## EXPORT VOLUME OF HORTICULTURE PRODUCTS, YEAR 1999 - 2004

| Commodities | Volume (Kg) | | | | | | % growth/ year |
|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| A ORNAMENTAL PLANT | 15,892,384 | 19,033,807 | 16,662,102 | 19,905,586 | 14,671,620 | 15,427,568 | 1.13 |
| B VEGETABLES | 133,597,922 | 136,512,862 | 46,753,207 | 157,568,953 | 133,042,483 | 114,855,146 | (2.44) |
| - Fresh | 106,411,558 | 102,520,175 | 117,284,045 | 135,758,489 | 110,015,726 | 89,027,545 | (2.31) |
| - Processed | 27,186,364 | 33,992,687 | 29,469,162 | 21,810,464 | 23,026,757 | 25,827,601 | 0.70 |
| C FRUITS | 264,955,554 | 187,344,905 | 188,040,173 | 225,367,780 | 189,648,224 | 210,182,344 | (2.82) |
| - Fresh | 100,348,013 | 33,865,164 | 28,978,742 | 36,851,906 | 42,104,977 | 38,634,788 | (9.50) |
| - Processed | 164,607,541 | 153,479,741 | 159,061,431 | 188,515,874 | 147,543,247 | 171,547,556 | 1.99 |
| D VARIOUS PLANTS | 1,457,612 | 2,561,757 | 1,515,606 | 2,162,969 | 2,774,892 | 3,668,992 | 27.63 |
| **EXPORT TOTAL** | **415,903,472** | **345,453,331** | **352,971,088** | **405,005,288** | **340,137,219** | **344,134,050** | **(2.97)** |

Source: Bureau of Central Statistics, 2005

## IMPORT VOLUME OF HORTICULTURE PRODUCTS, YEAR 1999 - 2004

| Commodities | Volume (Kg) | | | | | | % growth/ year |
|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| A ORNAMENTAL PLANT | 284,373 | 513,178 | 403,074 | 808,313 | 818,694 | 896,774 | 34.07 |
| B VEGETABLES | 317,333,609 | 330,109,210 | 352,291,658 | 372,692,172 | 373,460,912 | 434,476,188 | 6.62 |
| - Fresh | 299,288,325 | 311,067,184 | 330,394,440 | 348,560,493 | 344,023,023 | 400,801,755 | 6.17 |
| - Processed | 18,045,284 | 19,042,026 | 21,897,218 | 24,131,679 | 29,437,889 | 33,674,433 | 13.42 |
| C FRUITS | 110,409,321 | 246,621,488 | 250,624,963 | 274,783,34 | 228,648,866 | 393,353,172 | 37.98 |
| - Fresh | 105,602,023 | 240,085,764 | 243,842,639 | 267,015,608 | 222,235,020 | 382,671,723 | 38.77 |
| - Processed | 4,807,298 | 6,535,724 | 6,782,324 | 7,767,736 | 6,413,846 | 10,681,449 | 20.67 |
| D VARIOUS PLANTS | 223,179 | 539,640 | 1,011,655 | 741,495 | 491,024 | 354,603 | 28.20 |
| **IMPORT TOTAL** | **855,993,41** | **1,154,514,214** | **1,207,247,971** | **1,296,500,840** | **1,205,529,274** | **1,656,910,097** | **15.45** |

Source: Bureau of Central Statistics, 2005

## EXPORT VALUE OF HORTICULTURE PRODUCTS, YEAR 1999 - 2004

| Commodities | Value (USD) | | | | | | % growth/ year |
|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| A ORNAMENTAL PLANT | 10,167,298 | 9,398,745 | 9,834,578 | 12,134,271 | 13,871,739 | 14,446,046 | 7.78 |
| B VEGETABLES | 60,733,201 | 66,352,465 | 63,084,789 | 56,942,82 | 59,240,488 | 59,465,805 | (0.20) |
| - Fresh | 29,659,572 | 28,958,581 | 31,099,747 | 34,462,976 | 33,773,660 | 31,172,988 | 1.23 |
| - Processed | 31,073,629 | 37,393,884 | 31,985,042 | 22,479,849 | 25,466,828 | 28,292,817 | 0.11 |
| C FRUITS | 32,967,838 | 94,703,116 | 100,629,327 | 138,373,394 | 131,500,808 | 122,836,691 | 0.69 |
| - Fresh | 28,521,843 | 21,849,092 | 23,606,715 | 37,567,381 | 44,762,203 | 20,382,479 | 1.69 |
| - Processed | 104,445,995 | 72,854,024 | 77,022,612 | 100,806,013 | 86,738,605 | 102,454,212 | 2.10 |
| D VARIOUS PLANTS | 2,009,239 | 4,058,680 | 2,108,884 | 2,211,017 | 3,341,349 | 3,630,713 | 23.72 |
| **EXPORT TOTAL** | **205,877,576** | **174,513,006** | **175,657,578** | **209,661,507** | **207,954,384** | **200,379,255** | **0.06** |

Source: Bureau of Central Statistics, 2005

## IMPORT VALUE OF HORTICULTURE PRODUCTS, YEAR 1999 - 2004

| Commodities | Value (USD) | | | | | | % growth/ year |
|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| A ORNAMENTAL PLANT | 961,523 | 1,430,163 | 1,054,097 | 1,019,788 | 1,151,638 | 1,343,464 | 9.76 |
| B VEGETABLES | 87,338,441 | 99,163,226 | 108,791,839 | 115,244,204 | 114,950,913 | 136,137,173 | 9.47 |
| - Fresh | 79,156,781 | 87,465,287 | 96,178,325 | 98,590,228 | 94,931,970 | 111,852,585 | 7.42 |
| - Processed | 8,181,660 | 11,697,939 | 12,613,514 | 16,653,976 | 20,018,943 | 24,284,588 | 24.87 |
| C FRUITS | 61,352,034 | 145,057,885 | 147,103,077 | 220,253,270 | 195,006,043 | 224,589,553 | 38.26 |
| - Fresh | 57,434,693 | 139,516,184 | 142,375,038 | 213,880,383 | 188,975,239 | 215,954,876 | 39.56 |
| - Processed | 3,917,341 | 5,541,701 | 4,728,039 | 6,372,887 | 6,030,804 | 8,634,677 | 19.88 |
| D VARIOUS PLANTS | 843,161 | 1,265,329 | 1,396,889 | 1,904,161 | 2,231,728 | 2,007,333 | 20.79 |
| **IMPORT TOTAL** | **299,185,634** | **491,137,714** | **514,240,818** | **673,918,897** | **623,297,27** | **724,804,249** | **21.74** |

Source: Bureau of Central Statistics, 2005

## BALANCE SHEET OF EXPORT - IMPORT VOLUME, YEAR 1999 - 2004

| Commodities | Volume (Kg) | | | | | | % growth/ year |
|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| A ORNAMENTAL PLANTS | 15,608,011 | 18,520,629 | 16,259,028 | 19,097,273 | 13,852,926 | 14,530,794 | 0.27 |
| B VEGETABLES | (183,735,687) | (193,596,348) | (205,538,451) | (215,123,219) | (240,418,429) | (319,621,042) | 12.18 |
| - Fresh | (192,876,767) | (208,547,009) | (213,110,395) | (212,802,004) | (234,007,297) | (311,774,210) | 10.67 |
| - Processed | 9,141,080 | 14,950,661 | 7,571,94 | (2,321,215) | (6,411,132) | (7,846,832) | 16.43 |
| C FRUITS | 154,546,233 | 59,276,583) | (62,584,790) | (49,415,564) | (39,000,642) | (183,170,828) | 38.95 |
| - Fresh | (5,254,010) | (206,220,600) | (214,863,897) | (230,163,702) | 180,130,043) | (344,036,935) | 781.12 |
| - Processed | 159,800,243 | 146,944,017 | 152,279,107 | 180,748,138 | 141,129,401 | 160,866,107 | 1.27 |
| D VARIOUS PLANTS | 1,234,433 | 2,022,117 | 503,951 | 1,421,474 | 2,283,868 | 3,314,389 | 55.32 |
| **BALANCE SHEET** | **(12,347,010** | **(232,330,185)** | **(251,360,262)** | **(244,020,036)** | **(263,282,277)** | **(484,946,687)** | **375.81** |

Source: Bureau of Central Statistics, 2005

## BALANCE SHEET OF EXPORT - IMPORT VALUE, YEAR 1999 - 2004

| Commodities | Value (USD) | | | | | | % growth/ year |
|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| A ORNAMENTAL PLANT | 9,205,775 | 7,968,582 | 8,780,481 | 11,114,483 | 12,720,101 | 13,102,582 | 8.16 |
| B VEGETABLES | (26,605,240) | (32,810,761) | (45,707,050) | (58,301,379) | (55,710,425) | (76,671,368) | 24.67 |
| - Fresh | (49,497,209) | (58,506,706) | (65,078,578) | (64,127,252) | (61,158,310) | (80,679,597) | 11.05 |
| - Processed | 22,891,969 | 25,695,945 | 19,371,528 | 5,825,873 | 5,447,885 | 4,008,229 | (23.04) |
| C FRUITS | 71,615,804 | (50,354,769) | (46,473,750) | (81,879,876) | (63,505,235) | (101,752,862) | (12.81) |
| - Fresh | (28,912,850) | (117,667,092) | (118,768,323) | (176,313,002) | (144,213,036) | (195,572,397) | 74.75 |
| - Processed | 100,528,654 | 67,312,323 | 72,294,573 | 94,433,126 | 80,707,801 | 93,819,535 | 1.34 |
| D VARIOUS PLANTS | 1,166,078 | 2,793,351 | 711,995 | 306,856 | 1,109,621 | 1,623,380 | 63.21 |
| **BALANCE SHEET** | **55,382,417** | **(72,403,597)** | **(82,688,324)** | **(128,759,916)** | **(105,385,938)** | **(163,698,268)** | **24.73)** |

Source: Bureau of Central Statistics, 2005

# GENERAL INFORMATION ABOUT DIRECTORATE GENERAL OF PROCESSING AND MARKETING FOR AGRICULTURAL PRODUCT

The changing paradigm in agriculture development policy has taken place in a few years ago. Nowadays, the priority of agriculture focusing in agribusiness without neglecting on-farm activities. "Produce what you can make" has been widely known by policy makers and farmers/growers as well. Furthermore, to support this agriculture development priority, the government established new Directorate General namely DG of Processing and Marketing for Agriculture Product beside the existing DG of Horticultre.

The functions of this Directorate General are:

1. Formulation of Ministerial Policy for processing and marketing of agricultural production.
2. Formulation of standard, norm, guidance, criteria, and procedure for processing and marketing of agricultural production.
3. Providing of technical guidance and evaluation of programs executed by provincial agriculural services in all over Indonesia.
4. Providing inputs for formulation of agriculture policies related to agriculture trade and agribusiness.

Indonesia has a strong comparative advantage in agricultural and maritime resources. Therefore it should be capable to play an important role as the basis for the Indonesia's economy now and in the future. In relation with this Indonesia's economy has a strong domestic resources base, a competitive strength, and can fully developed for the welfare of the people.

To effectively change comparative into competitive advantage it is necessary to change agricultural development into agribusiness system development, where agriculture, upstream and downstream industries, and the service sector are harmoniously and simultaneously developed.

The agribusiness system development should be regarded not only as the new approaches, but also as the prime mover and grand strategy of Indonesia's overall economic development (agribusiness lead development). By promoting agribusiness system development, economic problems faced by Indonesia today, such as pushing economic growth, promote employment opportunity, increase export earning, encourage more equity, accelerate regional development, develop food security status and sustainable of the living environment, can be resolved in a simultaneous and sustainable fashion.

NOTES : .....

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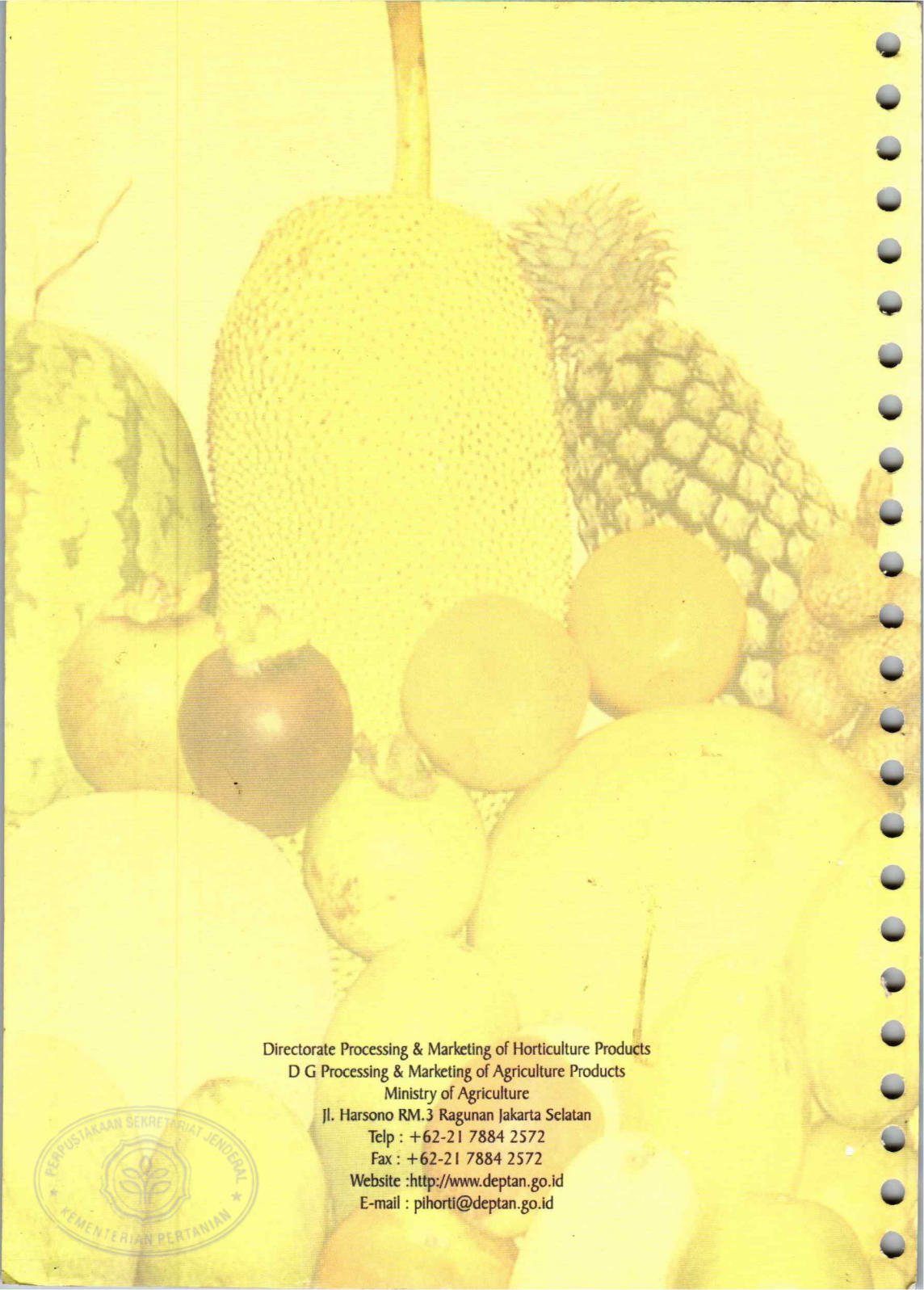

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