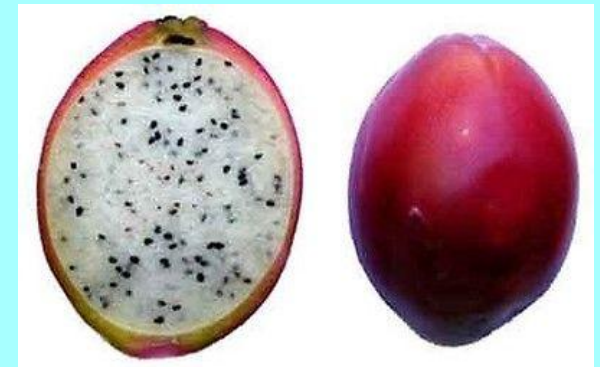




PITAYA & PITAHAYA (DRAGON FRUIT)



THE LEGEND OF THE DRAGON FRUIT

(The sensation surrounding this fabulous fruit can be attributed to a legend created by ingenious Asian marketers.)

According to the legend

The fruit was created thousands of years ago by fire breathing dragons. During a battle when the dragon would breathe fire the last thing to come out would be the fruit. After the dragon is slain the fruit is collected and presented to the Emperor as a coveted treasure and indication of victory. The soldiers would then butcher the dragon and eat the flesh. It was believed that those who feasted on the flesh would be endowed with the strength and ferocity of the dragon and that they too would be coveted by the Emperor.

It is written that the dragon's flame originates deep within its body near the base of its tail. The meat from this part of the dragon was the most desirable and most sought after portion. Only the officers of each division would be privy to this cut of meat. The ancient Chinese called this cut the "*jaina*," which translates literally to "*the sweetest and best tasting*."

The *jaina* was treasured by all who were privileged enough to taste it, and it is believed that man's thirst for the *jaina* is what led to the destruction and eventual extinction of all of the dragons.



Pitaya, Pitahaya, Dragon Fruit

Vining epiphytic cactus from subtropical and tropical regions of Central Mexico south through Central America and into South America as far south as Peru and as far east as Guyana. It is found on nearly every island in the Caribbean and is cultivated throughout the tropics.

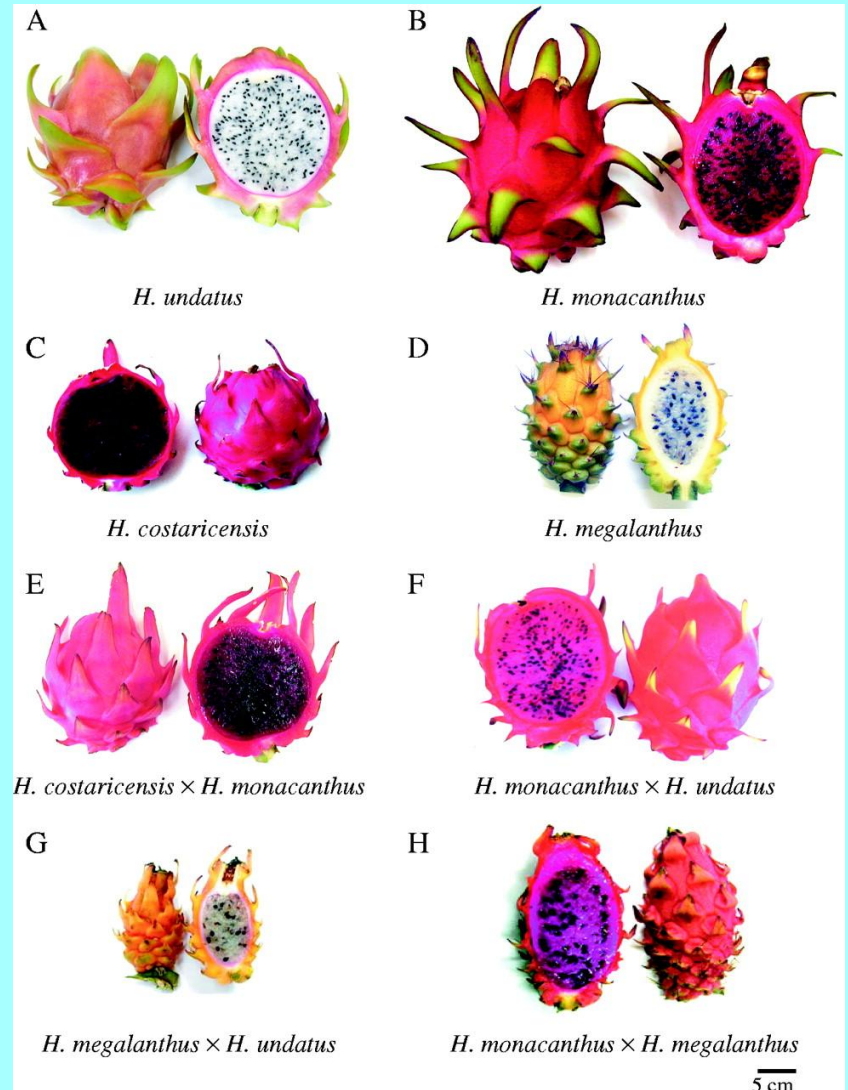


Hylocereus and Selenicereus

24 to 26 species of Hylocereus with many cultivars and hybrids. More than 100 varieties in California alone, with much confusion on identification.

The major species of Hylocereus which are grown commercially are *H. polyrhizus*, *H. undatus* and hybrids of these and other Hylocereus species

One species of Selenicereus, *S. megalanthus*, is grown commercially for its fruit.



Vines

Stems may grow more than 20 feet. Three ribs normally occur but four ribs per stem are common in some species. Stems may be straight or undulating and may have spines arising from the areoles or be nearly spineless.

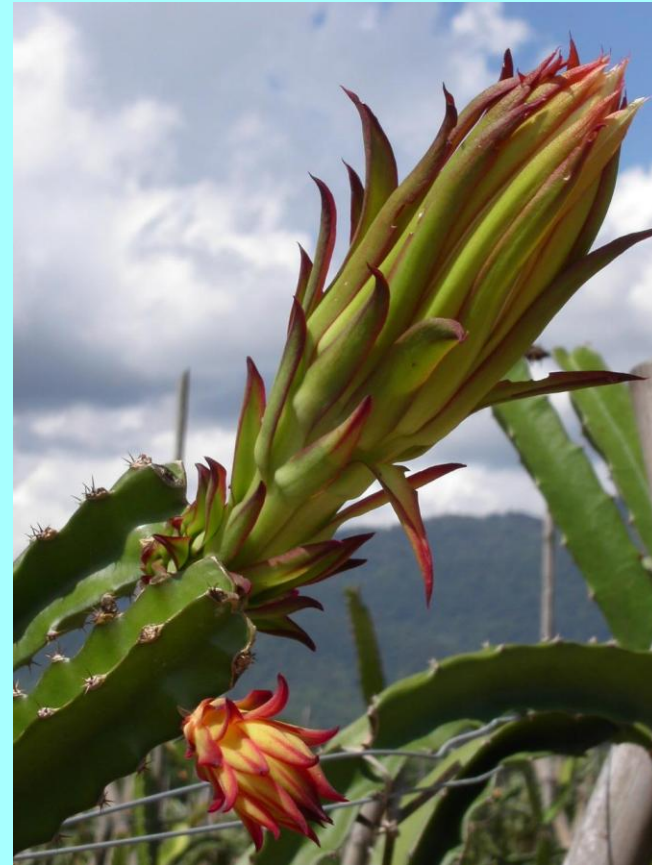


Flowers

- Flowering occurs in waves during warm months. As many as 4-8 flowering cycles may occur in tropical areas, however in California's cooler climate it is more normal for an average of 2-3 cycles to occur.
- Flowering and fruit set is dependant on temperature and photoperiod.



- Flower buds may be from 9” – 12” long in Hylocereus and up to 14” long in Selenicereus.
- Unopened flower buds are sometimes cooked and eaten as vegetables.
- It takes an average of 30 – 45 days from bud initiation until the flowers open.



- In Southern California, the flowers open at night for only one night. In the tropics, they are said to flower for two nights with one species opening and closing for three days.



- Flowers are white in color, fragrant and up to 12” in diameter

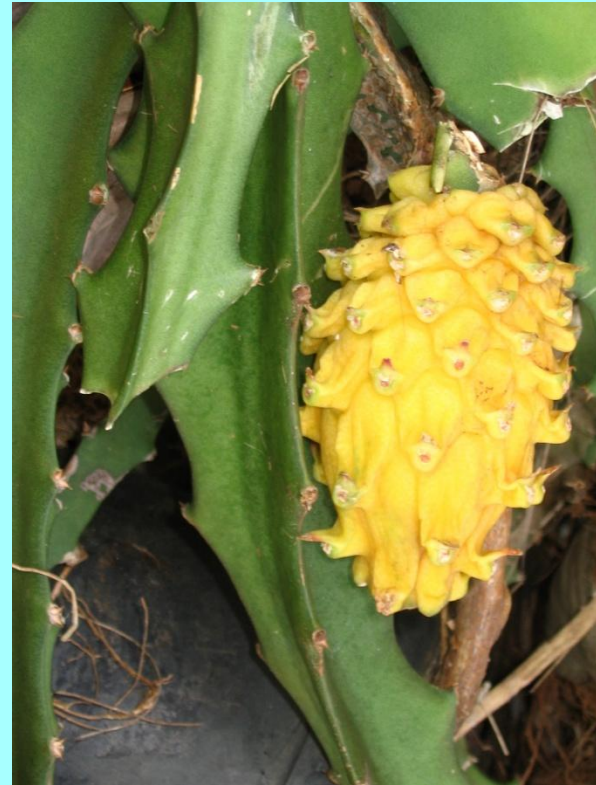


- Flowers are perfect. Some species, varieties, and cultivars of *Hylocereus* are self-fruitful whereas many others require cross-pollination from another species, variety or cultivar.
- Pollen may be stored in the refrigerator for up to two weeks and can be kept in the freezer for up to 30 days.



Fruit Development

- It takes an average of 45 days for fruit to develop after pollination occurs in *Hylocereus* species and up to 150 days for *Selenicereus*. Fruit ripening may be prolonged if the weather is cool.



Cultural Requirements

- Well drained soil, high in organic matter.
- Plants are cold hardy to an average of 28 degrees. Some species, varieties and cultivars may be more or less cold tolerant.
- Full sun well increase flower and fruit production but 5% - 30% shade may be required to prevent sunburn in hotter areas.



- Trellising is required to support plants.



- Trellis is generally 5 - 8 feet high.
- Spacing of plants is an average of 8 feet apart.
- Heavy pruning about 1 month before flowering (May) has been found to stimulate heavier flowering and fruit production.



- Aerial roots will not attach to metal, or chemically treated (pressure treated) wood. Burlap is sometimes wrapped around posts to facilitate attachment of aerial roots.

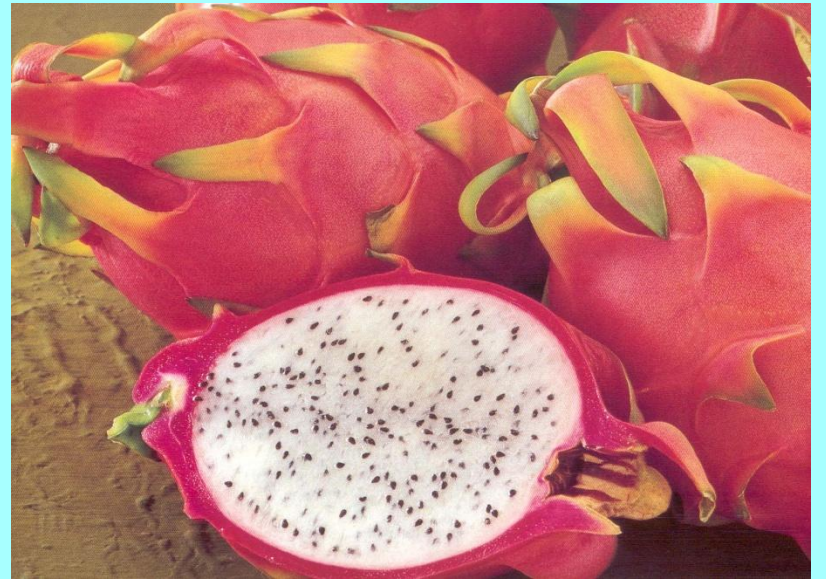
FRUIT

- Two or three crops fruit of Hylocereus fruit will be produced in summer and into fall. Selenicereus will produce fruit in late summer or fall.
- Hylocereus species normally have a hot pink or reddish outer “shell” and flesh which is white, pink or red.
- Fruit shell may have prominent scales.



- Fruit size of *Hylocereus* species will range ½ pond each to over 3 pounds each.
- The brix sugar content of fruit will average from 12% to 21% sugar.





Fruit may sell for as much as \$12 - \$25 each.



- Red fleshed and pink fleshed fruit contain relatively high levels of antioxidants.

Israel has developed one cultivar of *Hylocereus* which has a yellow skin.



YELLOW DRAGON FRUIT

(*Selenicereus megalanthus*)

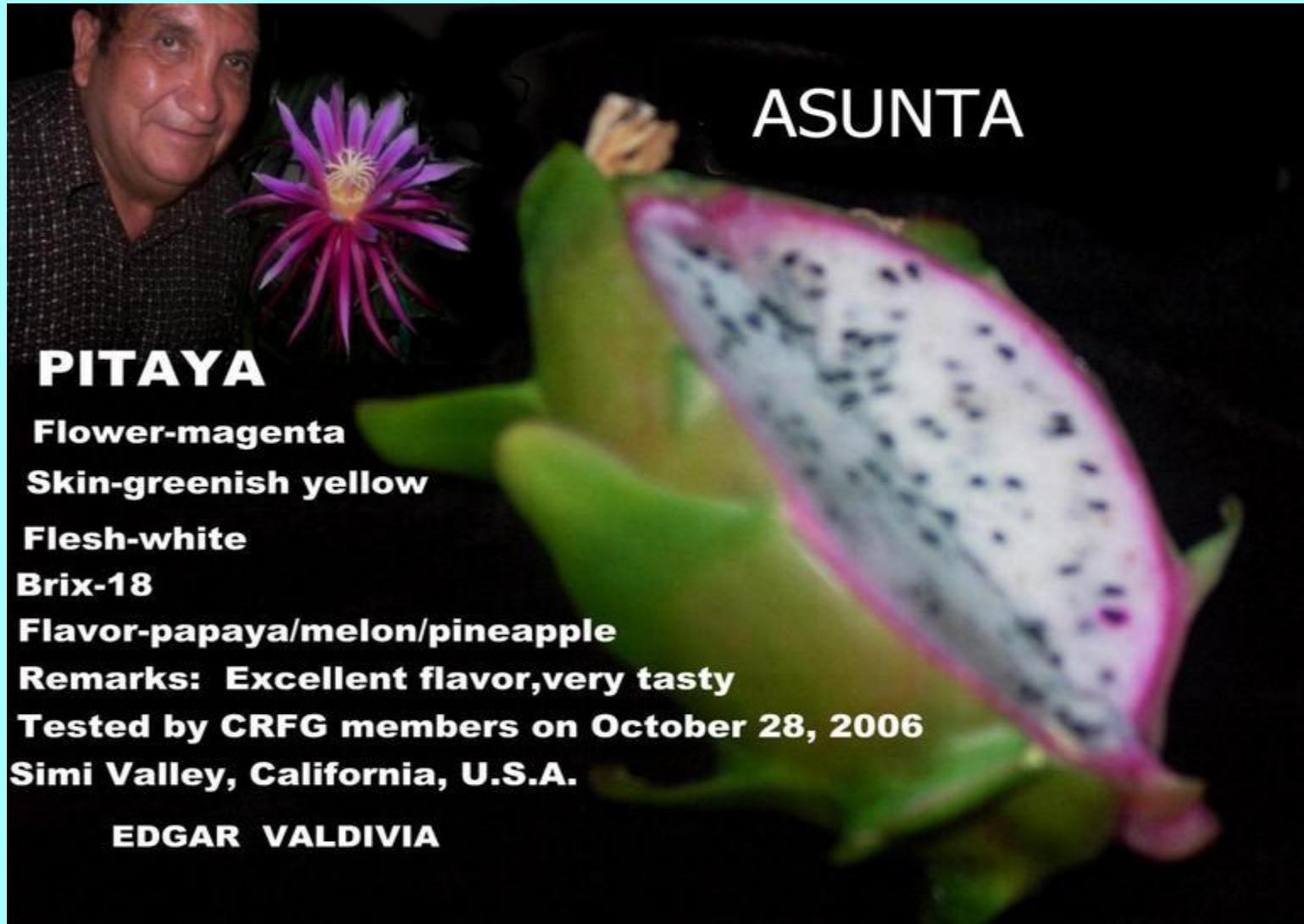


- Fruit is smaller but sweeter than other Pitaya.

- Plants of *Selenicereus* are more cold sensitive, more sun tolerant and are sweeter than most *Hylocereus* species.
- Plants are self-fruitful.
- Fruit have spines which fall off when the fruit is ripe.



Hybrid of Hylocereus and Epiphyllum



ASUNTA

PITAYA

Flower-magenta

Skin-greenish yellow

Flesh-white

Brix-18

Flavor-papaya/melon/pineapple

Remarks: Excellent flavor,very tasty

Tested by CRFG members on October 28, 2006

Simi Valley, California, U.S.A.

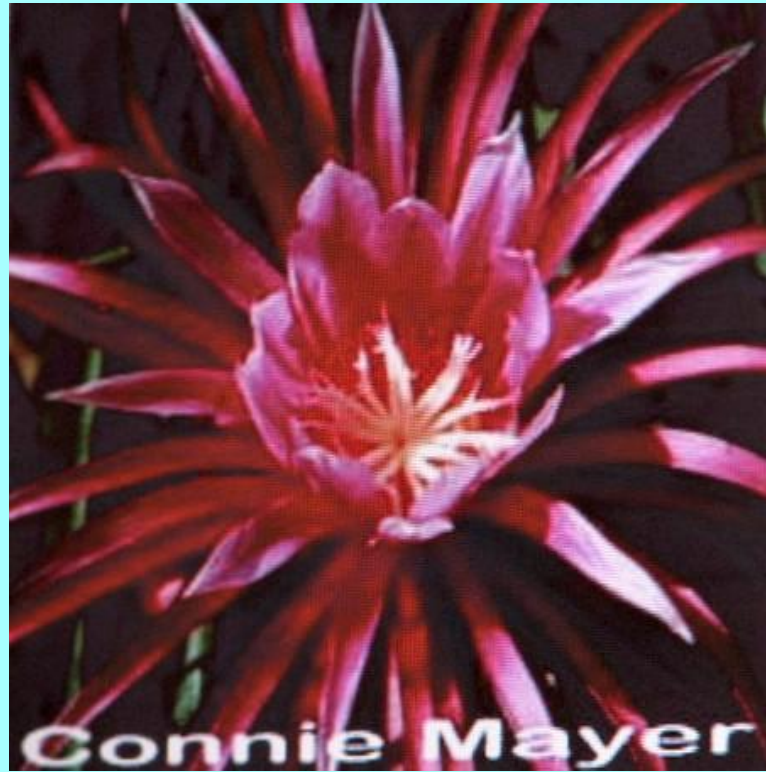
EDGAR VALDIVIA

Nutritional Values

100 grams of edible part contains:

- 85.4 gr. Water
- 0.4 gr. Protein
- 0.1 gr. Fat
- 13.2 gr. Carbohydrates
- 0.5 gr. Fiber
- 16 mg. Phosphorous
- 0.3 mg Iron
- 0.04 mg. Riboflavin
- 0.2 mg. Niacin
- 4 mg. Ascorbic Acid
- 50 Calories

Hylocereus X Stendatus Connie Mayer



- **A new species cross by German hybridizer, Eckhard Meier. It is the only red-purple species that is nocturnal. The parent plants are H.stenopterus and H. undatus.**
(Plants are available from Gray Davis Epiphyllums)

The Men who were the Pioneers



Left to Right:

Edgar Valdivia

Paul Thomson

Leo Manuel

Grateful appreciation and recognition must be given to the men who pioneered the growing of Pitaya in California: **THANK YOU!**

DRAGON EGG (PITAYA)

Cereus peruvianus

- A branching, columnar cactus with moderate growth rate. Height to 15 or more feet.



- The variety 'monsterosus' is smaller, bluish in color with ribs irregularly broken up into knobs and crests.



DRAGON EGG (PITAYA)

Cereus peruvianus

- Spectacular 5"- 6" white flowers open at night in late spring or summer.



- Fruit is sweet, pleasant and mild in flavor but somewhat grainy in texture.





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