

BOTANICAL DESCRIPTION



Pineapple is a perennial or biennial herbaceous plant about 50-150 cm tall. It has sword-shaped, long, narrow, fairly stiff leaves with margins, usually spiny except in few varieties. Its leaves are fleshy, fibrous, grooved on upper surface, arranged in a close spiral clasping the main axis at their base. The leaves, particularly of the “native” variety, produce excellent fiber. The plant produces rations, suckers and slips at the base, middle and upper parts, respectively. The fruit, an enlarged aggregate of fruitlets, is conical and produces a crown at the top with the eyes or fruitlets arranged all over in rectangular fashion. It is juicy, fleshy and yellowish when ripe. Sweet or sub-acid, the fruit is eaten fresh or made into preserve or wine.

VARIETIES

- Red Spanish
- Native Philippine Red

CULTURAL MANAGEMENT

Soil Requirement

Pineapple grows well on porous and well drained soil with pH level of 4.5 and 5.5. It does not thrive well in wet soil.

Climatic Requirement

Pineapple grows well in areas where temperature is mild and relatively uniform throughout the year. Rainfall must be between 100 to 150cm per year and evenly distributed during the growing season.

METHODS OF PROPAGATION

- Crowns
- Slips
- Suckers

Planting Season

Planting is done at the onset of the rainy season.

Distance of Planting

Pineapple may be planted at a distance of 20-20 cm in rows 80-100 cm apart.

Rate of Fertilization

Manure from poultry is an excellent fertilizer and is applied around 4 to 5 tons per hectare with complete fertilizer like 12-12-12 and 15-15-15 which is applied twice yearly at the combined amount of 400 to 500 kgs per hectare.

PEST AND DISEASE CONTROL

Some Major Pests and their Control

• **Mealy Bug** (*Dysmicoccus brevipes* Cockerell, 1893) is common on the roots of pineapple and large colonies which develop on the stem just above the ground level. It usually spread upwards to feed in the floral cavities on the crown leaves of both small and mature fruits. It causes wilt disease characterized by preliminary reddening of leaves followed by a definite color change from red to pink and an inward reflexing of the leaf margins. In severe cases, wilted plants show reduction in weight, leaf surface area, number of leaves, leaf length and breadth and root length.

Control

Heat Treatment - Heat pineapple crowns in a large bath at 50°C for 30 minutes. This permits 100% plant survival and makes the plant free from associated virus.

Chemical Control - Dip or fumigate pineapple crowns and slips in methyl bromide before planting.

• **Root Grub** (*Leucopholis irrorata* Chev.) is white when newly-hatched and turns light brown with age. The adults are grayish black beetles known as “Salagubang” in Tagalog. It feeds on the roots of the plant causing it to wither. When heavily infested, the plant dies. Incorporation of gamma-HCH into the soil may provide 100% control of first instar larvae and 48%-65% on the third instar larvae.



Philippine Fiber Industry Development Authority

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Some Major Diseases and their Control

• **Soft Rot** is caused by *Thielaviopsis paradoxa* (De Seyn) Noehr. It creates leaf spots, soft rot or water blisters and fruit rot. Rotting of stalk and base is also evident. This can be controlled by spraying or painting the cut-end with salicylic acid or dust with benzoic acid.

• **Heart Rot** is caused by *Phytophthora parasitica* Dastun. It produces stem blight and fruit rot. Control by using recommended insecticides.

MATURITY AND HARVESTING

A year-old pineapple plant produces strong and pliable fibers.

METHODS OF EXTRACTION

- Hand-stripping/Scraping
- Decortication
- Retting

MAJOR USES

Hand-scraped piña

- fabrics for barong Tagalog, Kimonos, pañuelos, gowns, handkerchiefs, table linens, table napkins, table cloth, pillow cases, fans and other household items and fashion accessories.

Decorticated piña

- textiles for clothing and home linens; handmade paper.

CLASSIFICATION AND GRADING

Decorticated

- PID-1 Piña Decorticated One (Linawan)
- PID-2 Piña Decorticated Two (Bastos)
- PID-R Piña Decorticated Residue

Hand-stripped

- PIH-1 Piña Hand-stripped (Linawan)
- PIH-2 Piña Hand-stripped (Bastos)
- PIH-3 Piña Hand-stripped Residue

COST AND RETURN ANALYSIS

ONE HECTARE PIÑA FIBER PRODUCTION

Given: Planting Density - 80,000 hills/hectare
Single Cropping Cycle with 18 months period

Assumptions:

Leaf Production : 15pcs/hill
Labor Cost : ₱ 250/MD
Planting Materials Prod'n : 4pcs/hill @ ₱ 4.00/pc
Fiber Prod'n : Linawan = 432kgs; Bastos = 480kgs

Establishment and Maintenance Cost : ₱ 470,500

- Materials : ₱ 365,000
- Labor : ₱ 103,500
- Fixed : ₱ 2,000

Fiber Production Cost : ₱ 660,000

- Harvesting : ₱ 50,000
- Hauling of leaves : ₱ 10,000
- Scraping of leaves : ₱ 600,000

Total Production Cost : ₱ 1,130,500

Revenue : ₱ 2,840,000

- Sales from planting materials produced : ₱ 1,280,000
- Sales of fiber produced : ₱ 1,560,000

Net Income : ₱ 1,709,500

Return on Investment : 151%

PINEAPPLE TECHNOGUIDE



Ananas comosus

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