

MD2

ILLUSTRATED QUALITY STANDARDS FOR EXPORT

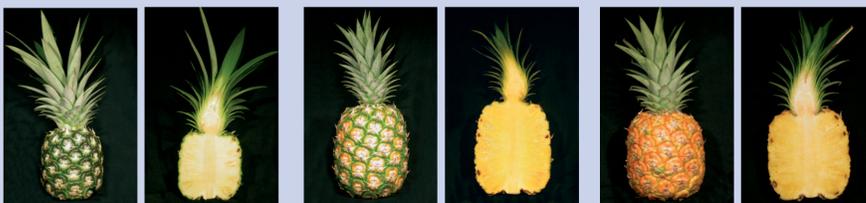
MINIMAL QUALITY REQUIREMENTS

THE FRUIT MUST BE :

- Whole with an intact crown, fresh in appearance, free from dead or dried leaves and no visible scar if it has been shortened
- Normally developed, sound and not deformed, of a satisfactory maturity, colour, clean and practically free of any visible foreign matter
- Free from sunburn
- Free of internal browning, holes, blemishes, deep cracks
- Free from foreign smell and/or taste
- Free from pest and physiological diseases
- If peduncle is present must be cleanly cut measuring not more than 2.0cm.

MATURITY

This starts from the **bottom** of the fruit. The total soluble solid content in fruit **flesh** should be at least **12°Brix**



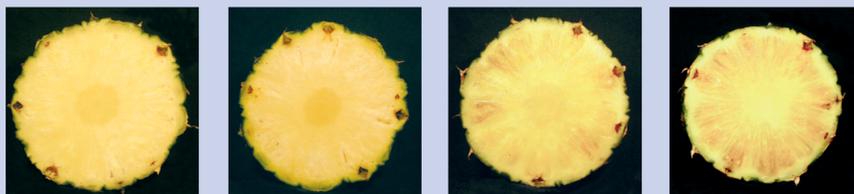
IMMATURE : the flesh is white, opaque with no fragrance

RIPE : the flesh is yellow in colour with a sweet fruity fragrance

OVERRIPE : 60% of translucency using the transverse section

TRANSLUCENCY

This is the **taste** qualities for best transportation



0% Low scale translucence gives excellent qualities without it being too fragile for transportation

25% Low scale translucence gives excellent qualities without it being too fragile for transportation

50% Medium fragility for transportation best for air freight

100% Great fragility with flesh fermentation

COLOUR

The natural colouring of the **skin** and **flesh** fruit commences from the **bottom** to top



M0 totally green exterior

M1 Lower 1/4 of fruit surface yellow/orange

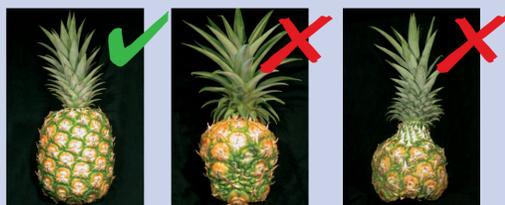
M2 Lower 1/2 of fruit surface yellow/orange

M3 Lower 2/3 of fruit surface yellow/orange

M4 Total of fruit surface yellow/orange

SHAPE

Each pineapple variety has its characteristic shape. A good MD2 shape is **cylindrical** and **symmetric**



DEFORMED SHAPE Genetic disorder

CROWN SIZE

The crown should represent **1/2** of total fruit length



Good crown size

Fruit with under developed crown

Large fruit with under developed crown

CROWN CONDITION

The crown represents the degree of fruit **freshness**. It must be **green** and **turgid**, with no dead or dry leaves and **no visible scars** if had been shortened



Good crown condition

Fruit crownless

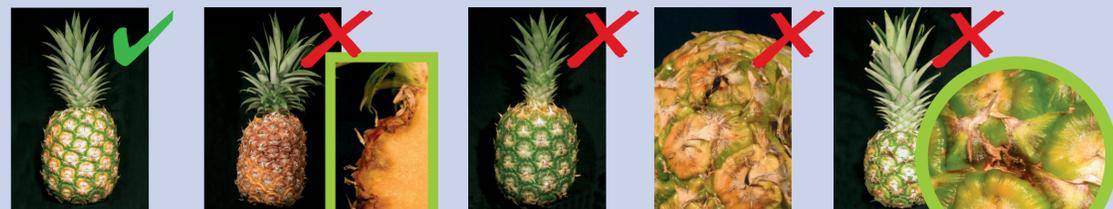
Fruit with multiple crowns

Fruit with discolored crown

Fruit with bruised crown

FRUIT CONDITION

Sound, clean, no pronounced blemish, free of any visible foreign matter, such as dirt, spray residue or pest.



DECAY Its due to environmental and physiological conditions

SUN BURN Withering of the skin and rotting of the flesh

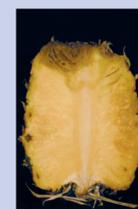
INSECT HOLES Insects gnaw bracts of the fruit and leave hole scars.

HEALED CRACKS The result of a wound to the young fruit

DISEASES



BRUISED develops when fruits are mishandled. With rise of temperature, it's enhanced.



SOFT ROT Fruits receive shock at harvest, transportation & peduncle cutting. Fungus (*Thielaviopsis paradoxa*) penetrates and develops



MEALY BUGS Eliminated by light brushing of fruits, and keeping ants away.

POST HARVEST PROCEDURE

PEDUNCLE

Treat with recommended products within **few hours** of harvest at the **base** of the fruit after transversal cutting of peduncle.



GOOD CUT : The cut must be clean; not longer than 2 cm

TOO SHORT : The fruit rests on its base; increase risk of shock and facilitates the penetration of fungi

TOO LONG : Peduncle may break off leading to penetration of fungi

Breaking of the peduncle is also a procedure used.



GOOD BREAKING

POOR BREAKING : facilitates fungi penetration

PACKAGE

The fruits are transported in a **vertical** or **horizontal** position. The chosen type must allow **good protection** of the fruits. The packaging must be **new, dry,** food grade and rigid to withstand stacking



GOOD PACKAGE : Contain same maturity, size and colour

BAD PACKAGE : Contain mixed maturity, size and colour