













## COPYRIGHT, All rights reserved



DOWNLOAD AGROWEX APP NOW ON & SIGN UP



WWW.AGROWEX-HUB.COM



## Disclaimer:

Every possible effort has been made to ensure the accuracy of this manual. However, the publishers, authors, and/or distributors cannot be held liable for any loss, damage, or injury that may result from the use of the information contained herein.



## INDEX



## **Produce Guide**

In the King Fresh Produce Guide, we provide education in the wonderful variety of produce available in store today. This produce Guide was compiled to stimulate the promotion and sales of fresh fruit, vegetables and herbs.

This guide will assist store management and staff to handle and merchandise produce properly and to give support to the adventurous and discerning shopper, it will assist with the identification of unfamiliar

value, handling and storage conditions & suggestions on how to prepare and enjoy it, with anticipation of trying something new. This guide will assist with ideas on improvement and more economical handling of fresh fruit and vegetables. Which is far better than taking nutritional supplements.

Fresh produce has it allgreat taste, never ending variety, and health benefits beyond measure. We are committed to supply the widest range of good quality fresh produce and fruit that are safe and nutritious.

## **FRUIT**

## GENERAL INFORMATION

Respiration
Fruit Ripening Process
Ethylene
Definitions
RDA Table
Availability

## • APPLES

Braebum
Fuji
Golden Delicious
Granny Smith
Jonagold
Pink lady and Cripps Pink
Royal Gala
Starking
Top Red
Sundowner/Cripps Red
Seasonal Availability

## • BERRIES

Blueberries
Raspberries
Strawberries
varieties, availability, nutritional

Cape Gooseberries

## • CITRUS

Soft Citrus Oranges Grapefruit Kumquat Lemon Lime

## • GRAPES

White Grapes Red Grapes Black Grapes Seedless Grapes

## • PEARS

Abate Fetel
Beurre Bosc
Beurre Hardy
Bon Chretien
Bon Rouge
Doyenne du Comice
Flamingo
Forelle
Josephine
Packham's Triumph
Red D'Anjou
Rosemarie
Starkrimson

## • STONEFRUIT

Apricots Grandir Peeka Super Gold



## • NECTARINES

Flamekist Flavortop Fiesta Red Margaret's Pride May Glo Nectared

## • CHERRIES

## • PEACHES

Cling Peaches
Kakamas
Neethling
Oom Sarel
Dessert Peaches
Earligrande
Elberta
Fairtime
Transvalia

## • PLUMS

Harry Pickstone Laetitia Ruby Nel Songold

## • PRUNES

## • DATES

## • SUBTROPICAL

Avocado Edranol Fuerte Hass Pinkerton Ryan

Bananas Cactus Pear (Prickly Pear) Carambola (Star Fruit) Coconut Granadilla Guava Kiwi Fruit Litchi Mango Keitt Kent Sensation Tommy Atkins Papaya Persimmon Pinapple

## • OTHER

Fig Quince Melons Galia Melon Honey Dew Spanspek Watermelon

## **INDEX**

## **VEGETABLES**

## **VEGETABLE INDEX:**

## GENERAL INFORMATION

Biological Factors Respiration Ethylene Production Compositional Changes

Compositional Changes
Growth & Developement

Water Loss

**Physical Damage** 

Pathological Breakdown

**Environmental Factors** 

Temperature

Relative Humidity
Atomspheric Composition

Light RDA Table

Availability Chart

## • LEAF VEGE TABLES

Crisp Lettuce
Cos Lettuce
Butter Lettuce
Green & Red Fancy
Leaf Lettuce

Endive SwissChard (Spinach) English Spinach

## • FRUIT VEGETABLES

Tomatoes
Roma /Plum Tomatoes
Cherry /Mini Italian Tomatoes
Sundried Tomatoes
Bell Peppers
Hot Peppers (Chillies)

## • SHOOT VEGETABLES

**Brinial** 

Table Celery Green Asparagus White Asapragus Artichokes Rhubarb Waterblommetjies Fennel (Bulb)

## • MUSHROOMS

White Mushrooms

Brown Mushrooms
Oyster Mushroms
Shiitake Mushrooms
Portabella Mushrooms

## • BRASSICAS

Cauliflower
Broccoli
Cabbage
Red Cabbage
Savoy Cabbage
Chinese Cabbage
BokChoy/PakChoy
Brussels Sprouts
Kohlrabi

## • TUBERS

Potatoes
Up to Date
Bp1
Mondial
Vanderplank
Inova

Red Potato Lady Rosetta Sweet Potatoes

## ROOT VEGETABLES

Ginger Beetroot Carrots Horseradish Turnips Parsnips Radishes

## • BULBS

Onions

Brown Onions Red Onions White Onions Shallots Pickling Onion Spring Onions Leeks

## • SQUASHES

Garlic

Squashes & Pumpkins
White Pumpkin
Blue Pumkin
Butternut
Gem Squash
Hubbard Squash
Baby Marrow
(Zucchini/Courgette)
Patty Pans
English, Sweet Slice &
Israeli Cucumber

## • PODS & SEEDS

Garden Peas Sugar Snaps/Mange Tout Corn Sweetcorn Green Beans Sprouts

## • ASIANS VEGE TABLES

Okra Luffer Calabash Drumsticks Jackfruit

## **HERBS**

## HERBSINDEX:

## • GENERAL INFORMATION

Handling & Merchandising Selection & Storage Preparation & Serving Handling

Basil **Bay Leaves** Coriander Dill Fennel Lemongrass Marjoram Origanum Mint Parsley Italian Parsley Sage Sorrel Tarragon Thyme Watercress Rosemary









# Fruit

## **GENERAL INFORMATION**

## Respiration

During growth in the fields, fruit receives sugar from the leaves through photosynthesis, water and minerals through the roots. With harvesting, connection to the sources of this supply is stopped but the plant continues to respire, grow, mature and eventually deteriorate.

The fruit has to rely on its own internal resources to generate energy required for metabolism. The most pronounced condition is that the respiration process continues drawing water, that can no longer be replaced from the roots of the plant.

The speed at which maturation occurs determines how fast the product will age or break down and mainly depends on 3 factors:

- -The commodity type and age of harvest
- -The Temperature
- -The Atmosphere surrounding the product

## Commodity Type

There is a vast difference in the rates of respiration of various fruit:

- 1) Fruit that enter a dormant (Alive but not actively growing) state when harvested. eg Fresh Dates have low respiration rates.
- Fruits that are harvested during an active phase of growth, eg. Strawberries and bananas they have a moderate respiration.

## Temperature

In common with all other chemical processes, the respiratory process and other metabolic processes in fruit depend on temperature within the biologically active temperature interval from 0-40°C. Each time the temperature increases by 10°C, the respiration rate approximately doubles

The Atmosphere Surrounding the Products
 Oxygen is consumed during the respiration process.

 By limiting access to oxygen, it is possible to slow down the respiration rate and, in doing so, prolong storage life.

## • Fruit Ripening Process

Fruit is picked at the best stage of ripeness so that we can give the customer the best quality fruit with the best possible eating experience. Fruit is classfied into two different groups of ripening, namely:

## · Climacteric Fruit (Ripen naturally after picking)

The climacteric is a stage of fruit ripening associated with increased ethylene production and a rise in cellular respiration.

## · Non-Climacteric Fruit (Not ripen after picking)

Non-Climacteric fruit will not ripen further after it is picked the fruit will not increase its sugar (taste) levels or colour after being picked.

## • CLIMACTERIC FRUIT

Apples Apricot Avocado Banana Blueberries Fig Guava Kiwi Fruit Mango Melon Nectarine Papaya Peaches Pear Persimmon Plums Quince

## • NON- CLIMACTERIC FRUIT

Blackberries Cherry

Fresh Dates

Pineapple
Cactus Pear/Prickly pear
Raspberry
Strawberry
Watermelon
Grapes
Cucumber
Bell Pepper
Citrus
Lychee
Pomegranate



## **GENERAL INFORMATION**

## Ethylene

Serves as a hormone in plants it acts at trace levels throughout the life of a plant by stimulating or regulating the ripening of fruit or the opening of flowers.

Ethylene is active at very low concentrations and the production rate increases with:

- Maturity
- Physical injuries
- Disease incidence
- Water stress
- Increased storage Temperatures

Ethylene production is reduced by:

- Low temperature
- Low oxygen levels

Other sources of ethylene that could affect produce include:

- Rotting fruit or vegetables
- Some fungi
- Cigarette smoke

## • RA (Regular Atmosphere)

- Room temperature

## CA (Controlled Atomsphere)

Controlled air: The oxygen levels are reduced and the carbon dioxide levels are increased, exposing fruit to partial suffocation and thus increasing the storage life by a few weeks/months (depending on variety).

## Ethylene

It is very important to remove old fruit from a box because it will shorten the shelf life of the other fruit.

## · Ethylene Sensitivity

When fruit is sensitive to ethylene, it means that the gases released by certain fruit will cause some fruit to ripen quicker and shorten the fruit's shelf life. For example, bananas displayed next to apples. It is important to know which products can be displayed next to each other.

## RECOMMENDED DAILY DIETARY ALLOWANCES (RDAs)

NUTRIENT	MALE	FEMALE	CHILD
ENERGY kj	12881	10093	9572
PROTEING	56	46	34
CHO g	130	130	130
DT FIBRE g	38	25	31
VIT A µg	900	700	600
VIT C mg	90	75	45
FOLATE ug	400	400	300
CALCIUM mg	1000	1000	1000





# AGROWEX SEASON AVAILABILI

## **AGROWEX SEASONAL AVAILABILITY CHART**

	Jan	Feb	Mar	April	МаУ	June	July	Aug	Sept	Oct	Nov	Dec
Apples				The Physics	W.						<b>350</b>	
Avocado			11/15	2 - 100		PROF			Telle			
Banana												
Blueberries												
Cactus Pear					<b>35</b> 55 2							
Cape Gooseberries							Aug San					
Carambola(Star Fruit)				16 - Za	25 (70)	PWW.	AL DU		2. L54			
Coconut									EN PROPERTY.	TELES		
Figs												
Galia Melon	DE 6305			NES.						ent	NEED O	
Granadillas	n sm ta											
Grapefruit												
Grapes				2146								
Guava												
Honeydew Melon			Tool 1						1000			<b>E</b>
Kiwi Fruit						NE SY	EK.					
Kumquat						MI III						
Lemon				PMEDY					K TO A		<b>25</b> 50	
Lime				or the same	E ST						-	
Litchis												
Mango												
Minneola								9,33	100			
Oranges												
Papaya								West S				
Pears									1700000			
Persimmon												
Pineapples			DECEMBER 1							NO THE		
Raspberries					N. ME							
Soft Citrus						3-1-0						
Spanspek		100 Ta		SHIT SHE	0	(Belea)	1557				THE RE	TETT
Stone Fruit							-					
Strawberries												
Watermelon		100									EUES	



## **APPLES**

## · Handling and Merchandising

Apples are sensitive to handling and bruising. It is important to handle them as little as possible. Display them in the box in which the fruit arrived in.

## Storage Temperature

Apples must be stored at between 0 - 5°C. During the cold chain process, from farm to store, this temperature should be maintained.

Once the apples are delivered to the store, it is vital that they are stored in the back-up fridge until
Merchandised on the shelf

## Expected Storage life;

Temperature stored / Storage life days: 0°C - 5°C......21
5°C - 10°C......7
12°C - 15°C.....4

18°C - 24°C.....2

## Handling

Temperature......-1°C - 4°C
Relative Humidity......90 - 95%
Ethylene producer
Moderately sensitive to freezing injury

## 

Dietary Fibre......3g

## Braeburn

The stripes and blush vary in hue dependant upon the apple's maturity and climate in which it is ripened. It's crisp flesh is creamy yellow and juicy, offering a classic apple taste. The flavour is the perfect balance of sweet and just slightly tart. An excellent fresh eating apple, good for dicing and using in salads.



## Fuji

The fuji is a red delicious cross. It is a small to medium sized apple, with dull red-pink blush and a yellow, orange background colour. The flesh is cream coloured and the texture is firm and crisp. It is a juicy apple with a delicate aroma.

Fuji is an excellent fresh eating apple.

The flesh tends to disintegrate when cooked.



## Golden Delicious

A medium sized apple, green when harvested and turns golden yellow during ripening, with prominent lenticel spots.

Depending on the climatic conditions, the skin can develop a delicate pink blush. The flesh is creamy and juicy with a sweet taste.

An excellent eating and cooking apple.

The flesh retains its shape when cooked.



## · Granny Smith

A medium to large apple with bright green skin. In cooler areas it could develop a red or pinkish blush. The flesh is white and crisp with tart taste. Excellent eating and cooking apple.



## Jonagold

The Jonagold apple is a cross between Golden Delicious and Jonathan Apple. It is golden skinned and striped with a red blush. These are large eating apples with rich, juicy, spicy flesh. The Jonagold is not a good keeping apple and has a short season. The apples complement fresh salads or can be served with cheese.







# Braeburn · Granny Smith Jonagold Pink Lady & Cripp's Royal gala · Starking · Top Red Sundowner

Pink Lady/Cripps Pink



Royal Gala



Starking



Cripps



Sundowner

## · Pink Lady/Cripps Pink

A medium sized apple, with a prominent pink blush on a lime green to cream background. It has a crisp crunch and smooth texture. The fruit has a sweet-tart flavor with crisp mouth feel and a creamy flesh colour. These apples are picked later in the apple season (April). For the apple to be packed as a pink lady it has to have and unbroken bright pink colour that covers 40% of the fruit, otherwise it is packed as Cripps Pink. The apples resist browning when cut making it ideal for salads, fresh eating and baking. Also good with cheese.

## · Royal Gala

A medium sized apple with skin colour that is green - yellow with bright red stripes. The texture is crisp with a fragrant, sweet taste. Being the first red apple of the season, they sell well. An excellent fresh eating apple, especially in salads.

## Starking

A medium sized apple, with stripes on a green - yellow background. The flesh is cream - coloured and the texture crisp. An excellent fresh eating apple. The flesh disintegrates when cooked.

## · Cripps

A medium sized apple, with a deep red colour and prominent lentical spots. The flesh is cream - white with a crisp juicy taste. An excellent fresh eating apple.

## Cripps Red Sold As Sundowner

A medium sized apple, bi-coloured apple with striking red blush colour predominating over a green - yellow background enhanced by large prominent lenticles. It has a uniform round conical shape with impressive eating qualities. The course textured, juicy apple has a high sugar content with balance acid that gives it an enjoyable fresh flavour.

	Jan Feb	Mar	Apr May	June July	Aug Sep Oc	Nov Dec
Royal Gala		-				
Golden Delicious		_				
Granny Smith		1				
Starking						
Top Red			_			
Pink Lady/Cripps Pink						
Braeburn						
Fuji						
Jonagold		-				
Sundowner/Cripps Re	d	-				

## **BERRIES**

## Blueberries

## · Preparation and serving

Before using the berries, wash them and remove stems and any mouldy fruit. Use fresh in salads and combine with other berries or kiwi fruit, melons and/or water-melons. Excellent for baking muffins and cakes. Use in jams or purees and serve with plain yoghurt.



## Handling

Temperature	0-2°C
Relative Humidity	90-95%
Highly sensitive to free:	zing inju <b>ry</b>

## · Nutritional facts per 100g

Energy	266kJ
Protein	1g
Fat	0.4g
Carbohydrates	11.0g
Dietary Fibre	. 3g
Vitamin C	13mg

## Cape Gooseberries

## General Information

The Cape Gooseberry is a round, bright yellow berry. Available all year.

## Handling and Merchandising

Display with other berries, such as Strawberries, Raspberries, or Blueberries. It can be promoted in the husk or in a pre-packed form. Promote berries by providing consumers recipes, nutritional and health information to attract sales. Display should be refrigerated.

## Selection and Storage

Choose large, firm, round and evenly coloured berries. Ripe berries Should also have a fragrant smell. Keep berries refrigerated and dry. Do not wash until ready to use.

## Preperation and Serving

Wash the berries before use. Serve fresh like grapes or cherries. Use fresh in salads and combine with other berries or kiwi, melons and/or water-melons. Use in jams or purees and serve with plain yoghurt, Ice cream or sorbet. Because of its sweet-tart taste, It is ideal for making sauces and dessert toppings.



## Handling

Temperature	0-1°C
Relative Humidity	90-95%
Highly sensitive to freez	ina iniun/

## · Nutritional facts per 100g

Energy	257kJ
Protein	2g
Fat	1g
Carbohydrates	6g
Dietary Fibre	5g
Vitamin A	72µg
Vitamin C	11ma





## **RASPBERRIES**



## · Nutritional facts per 100g

Energy	235kJ
Protein	.19
Fat	.1g
Carbohy drates	.5g.
Dietary Fibre	.7g
Folic Acid	.26ug
Vitamin C	25mg

## General Information

Raspberries are available in different colour varieties namely red, black, yellow amber and purple. The berry is a combination of multiple small fruits each with its own small seed. These seeds have a high fibre content. The berry also has high vitamin C content and is a source of iron, which makes it an excellent contribution to the diets of vegetarians.

Available from November to May

## Handling and Merchandising

Raspberries are very perishable and should preferably be pre packed to minimise handling by customers. Packaging must be dry. Display with other berries such as Strawberries, Cape Gooseberries or Blueberries. Promote berries by providing consumer recipes, Nutritional and health information to attract sales. Refrigerate display to ensure freshness

 Selection and Storage Choose plump and well coloured berries. Ripe berries should have a fragrant smell. Keep berries refrigerated and dry. Avoid mushy and

mouldy fruit.

## Preperation and Serving

Wash gently before use and serve fresh like grapes or cherries, use fresh in salads and dessert and combine with other berries and fruit. Use it to make juices, jams or purees and serve with plain voghurt, ice cream or sorbet. Remove the seeds by straining the juice. Raspberries can also be frozen.

 Handling Temperature.....0-1°C Relative Humidity...90-95%

## **STRAWBERRIES**



## · Nutritional facts per 100g

Energy	251k.
Protein	1g
Fal	Trace
Carbohydrates	10g
Dietary Fibre	3g
Folate	59ug
Vitamin G	93mg
Serving size	160g

## General Information

The Strawberry differs from other berries as it has seeds on the surface. The Strawberry is rich in Vitamin C. Available from June to January

## Handling and Merchandising

Promote strawberries aggressively by providing consumer recipes, Nutritional and health information to attract sales. Strawberries are very perishable and should preferably be pre-packed to minimise handling by consumers. Display with other berries such as Raspberries, Cape Gooseberries or Blueberries. Display should be refrigerated to ensure longer shelf life.



## SOFT CITRUS

## General Information

The most common varieties are the Clementine, Naartjie and Satsuma. Many varieties are seedless such as the Satsuma and Ellendale. It has a comparable sweetness to juice or eating oranges but with less acidity. The citrus fruit is smaller and flatter than a standard sized orange. The skin is thin and loose. It can grow in colder regions than oranges because of its higher resistance to cold.

Available from March to October.

## · Handling and Merchandising

Fruit should be evenly sized when displayed to minimise handling by consumers

## Selection and Storage

Selected fruit are firm and heavy for their size, with bright, colourful peel. It should have a glossy appearance with a light to deep orange colour. Avoid fruit with bruised, wrinkled or discoloured peel, indicating age or incorrect storage. Most citrus will keep at room temperature for several days. For best results, store citrus in a plastic bag or in the crisper drawer of refrigerators.

## Handling

Temperature4°C - 7°C
Relative Humidity90 - 95%
Odour producer
Moderately sensitive to freezing injury

## Nutrition Facts per 100g

## Minneola

Minneolas are large in size, round in shape with a pronounced and distinctive neck. It is reddish to orange in colour. The fruit may feel slightly soft, giving the impression that the fruit is puffy, somewhat over mature and wilted, but this is not the case. The flavour is rich, tart and aromatic. The acid in the juice content is exceptionally high.

## Naartjie

The Naartjie is a popular South African soft citrus fruit with comparable sweetness to oranges but with less acidity. The peel is thin and loose.

## Minneola



Naartjie



Satsuma



Clementine

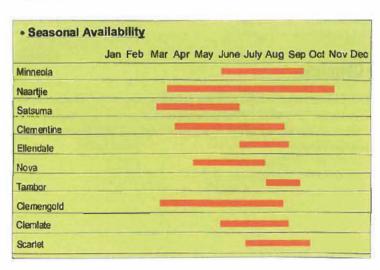
Minnenla

## · Satsuma

Satsuma are the earliest ripening variety of all soft citrus varieties. The fruit has easy to peel segments, is seedless, very sweet and juicy. The fruit is generally small to medium and it tends to become puffy when ripe.

## Clementine

The fruit is generally small, sweet and contains few seeds. It tends to have more of a tight peel than the Satsuma and other soft citrus, and it does not become as puffy. The fruit has a vibrant colour and is the most well known soft citrus.





# Minneola

## · Ellendale

Ellendale are medium to large in size and somewhat flattened in shape. The external colour is deep orange and the pulp is tender and juicy. The fruit has a thin peel and contains a number of seeds.

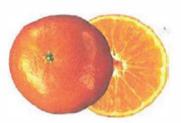
## Ellendale

## Nova

The fruit is firm and the flavour is sweet.

The peel is thin and reddish / orange in colour.

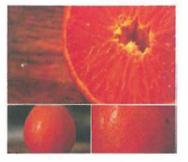
The internal quality of the fruit is very high,
and it contains seeds.



Nova

## Tambor

The fruit is of medium size and slightly flattened at the stylar end where where a small navel is often formed. The peel is leathery and difficult to remove but the pulp is tender and extremely juicy. The juice is of outstanding colour while the flavour is sweet but well balanced with acidity. Presence of seed in this variety is variable.



Tambor

## · Clemengold

This fruit has manyoutstanding characteristics like a deep orange coloured, slightly pebbly peel and an intense rich flavour. It is medium sized, seedless, has a flattish shape and is easily peeled like a Clementine.



Clemengold

## Clemlate

The juice content is high and the pulp is very tender and sweet. The external colour develops very slowly which makes it a late season variety.



Clemlate



## Scarlet

The seed content is less than two seeds per fruit and it is easy to peel although it has a thin peel. The sugar acid ratio is

particularly high later in the season and the external colour is reddish orange.



Scarlet

## **ORANGES**

## · Handling and Merchandising

Oranges merchandise well in bulk displays and can be stacked fairly high. When stacking oranges, care should be taken to avoid easily collapsable displays. Oranges can be refrigerated or displayed at room temperature.

## Selection and Storage

Choose oranges that are firm and heavy for its size and have a thin skin. Brown or green spots do not affect flavour. Oranges do not ripen after harvesting. Ripe Valencias can have a slightly green coloured peel as "regreening" is a natural process that can occur in warm weather. Fruit that is spongy and light for its size should be avoided. Also avoid fruit with watery and soft areas because it indicates decay. Oranges can be stored at room temperature for five days or refrigerated at 4-7°C for up to six weeks. Old oranges have wilted and shrivelled skins.

## · Navel

Navel oranges have a distinctive feature of having a small secondary fruit embedded in the primary fruit. It is large, seedless, sweet and juicy orange with a peel that is deep orange and fairly thick. The segments are easily parted, the flesh is firm, moderately juicy and of a fine, rich, sweet flavour but with adequate acidity.



Navel

## · Cara Cara

This is a red fleshed navel variety with flesh similar to Star Ruby Grapefruit. Cara means beloved or dear one in Italian. The pulp is tender and the flavour is rich. Cara Cara oranges have a sweet and juicy taste with low acidity.



Cara Cara

## Selection and Storage

Navels are excellent eating oranges because of their sweet and juicy taste. They are best eaten fresh. Valencia oranges are also great eating oranges or segments can be added to fruit salads. Valencias are ideal for juicing. Enjoy the juice fresh for breakfast. Add it to a fruit punch, salad dressing or use in sorbets. Oranges could be used for marmalade.

## Handling

## Navelate

The fruit is medium to large in size, the peel is thinner and more leathery than other navel oranges and is peeled less easily. The external colour of these oranges develops later than other varieties and internal quality of the fruit is superior due to its fine and juicy flesh and rich flavour.



Navelate

Shamouti







Delta

## · Delta

Delta oranges originated in South Africa,

The fruit is larger in size and has a lower sugar content and acidity than Valencias. The fruit is virtually seed-less and internal quality of a very high standard.

## • Midknight



Midknight

A Valencia type orange that is famous for its high juice content excellent flavour, absence of seeds and large fruit size. The peel is thinner and the fruit is more difficult to peel.

Shamouti

## Shamouti

The fruit is oval shaped, medium to large in size, easy to peel due to a thick peel and virtually seedless. The flavour is exceptionally fragrant, rich and sweet.



Valencia

## · Valencia

Valencia oranges are known for its high juice content and sweet flavour. The fruit is well coloured, the peel is thin and leathery and the flesh is bright orange and juicy. Each fruit generally contains 2-4 seeds.

• Seasonal	Availability			
	Jan Feb I	Mar Apr Ma	y June July Au	g Sep Oct Nov Dec
Navel				
Cara Cara			-	
Navelate				
Delta				
Midknight			-	
Shamouti		12.00	-	
Valencia				



## **GRAPEFRUIT**

## General Information

Grapefruit is especially popular served for breakfast. Two varieties are available in South Africa, Namely Star Ruby (Red or Pink Fleshed) and Marsh (White Fleshed). Both varieties have high Vitamin C content and the red varieties have a higher Vitamin A content.

## Availability

- Marsh: May to September
- Star Ruby: May to October
- Handling and Merchandising
   Grapefruit can be merchandised in bulk displays and can be stacked fairly high without damaging the fruit. The display should be stacked in such a way as to prevent collapsing.

## Selection and Storage

Choose firm, heavy fruit that are evenly coloured and have smooth, thin skins. Avoid fruit with brown and soft spots. Grapefruit do not ripen after being harvested. They can be stored at room temperature for up to six days, but when refrigerated they can be kept for several weeks.

## Preparation and Serving

The grapefruit is ideally suited for using in drinks, Fruit salads, salad dressings, Marmalade and jellies. It can be used as garnish by cutting it into twists or added shredded grapefruit peel to decorate cakes.

## Handling

Temperature......8°C - 12°C
Relative Humidity.....80 - 90%
Moderately sensitive to freezing injury
Susceptible to chilling injury





## KUMQUAT

## General Information

Oval, miniature orange fruit with edible, sweet, thin skin and bitter flesh.

## Availability

- June to August.
- · Handling and Merchandising

Kumquats merchandise well in bulk displays and can be stacked fairly high. The display should be stacked in such a way to prevent collapsing. Kumquats should be refrigerated.

## Nutrition Facts per 100g

Energy	298kJ
Protein	1g
Fat	Trace
Carbohydrates	10g
Dietary Fibre	7g
Calcium	44mg
Vitamin C	37mg

## Selection and Storage

Select firm, evenly coloured bright orange and undamaged fruit. Store in the refrigerator.

## Preparation and Serving

Wash and dry the fruit and served peeled or unpeeled if ripe. Kumquats can be used to garnish fish dishes or serve with duck or game. Use for marmalade or preserve in brandy and serve with ice cream.

## Handling

Temperature7°C - 12°C
Relative Humidity85 - 90%
Moderately sensitive to freezing injury
Susceptible to chilling injury











## LEMONS

## General Information

Although not eaten as a whole fruit, lemons are one of the most indispensable foods. It adds zing to many dishes such as stews, cakes, tarts and fish. Lemon trees thrive in warm subtropical areas in many parts of South Africa where rain is often scarce. Lemons are high in Vitamin C. Eureka is a popular variety in South Africa.

Available all year round.

Handling and Merchandising
Lemons can easily be displayed
in bulk because of their toughness.
 Fruit should be evenly sized to
minimise handling by customers.

<ul> <li>Nutrition Facts per</li> </ul>	100g
Energy	208kJ
Protein	race
Fat	Trace
Carbohydrates	7g
Dietary Fibre	<del>l</del> g
Calcium 2	9mg
Vitamin C 5	7mg

## Selection and Storage

Choose fruit with a rich yellow colour, that is plump, thick skinned, heavy and has a fairly smooth appearance. Avoid fruit with shrivelled and hard skin. Lemons can be stored for up to 5 Days.

## Preparation and Serving

To extract the maximum juice, bring the fruit to room temperature and apply gentle pressure by rolling it slowly and firmly. One cup of juice can be extracted from 5 to 6 medium lemons. Left over juice should be frozen because the juice loses its flavour when refrigerated.

## Handling





Limes can be used to enhance the flavour of a variety of dishes including fish, marinades, salad dressing, fruit, chicken and juices. It can replace salt in many dishes as a flavour enhancer. Limes are characteristicly smaller than lemons and also have a green skin colour. They also have a more pungent flavour.

Available from March to June

Handling and Merchandising
Limes can easily be displayed in
bulk because of their toughness.
 Fruit should be of the same size
to minimise handling by customers.
 Pre-packed limes sell well.

• Nouthon Facts per 100g
Energy198kJ
Protein1g
FatTrace
Carbohydrates 8g
Dietary Fibre 3g
Calcium 33mg
Vitamin C 29mg

- Mutrition Foots nor 400m

## Selection and Storage

Choose fruit with a bright colour, that look plump, smoothed skinned and feel heavy. Avoid fruit with shrivelled and hard skins. Limes sometimes have brown patches on the surface but this does not affect flavour. Limes can be stored for up to 7 Days.

## Preparation and Serving

To extract the maximum juice, bring the fruit to room temperature for about and hour and apply gentle pressure by rolling it slowly and firmly. Cut the fruit in half, stick a fork into the flesh and twist and tum to release the juice. Left over juice should rather be frozen because the juice loses its flavour when refrigerated. When cooking, substitute salt and butter with lime juice for a healthier alternative.

## Handling

Temperature......8°C - 12°C
Relative Humidity.....85 - 90%
Odour producer
Highly sensitive to freezing injury
Susceptible to chilling injury



## **GRAPES**

## Packaging and Storage

Grapes are picked early in the morning before the berries get too warm from the sun. They are then transported to the pack house where they are cooled before being packed. After the grapes are packed, they are transported to coldroom facilities between 0-5C. It is important that the stores try to maintain these temperatures so that an excellent quality product can be presented to customers.

Grapes are packed into liner bags that are placed inside boxes. A sulphur pad is placed on top of the grapes before the bag is closed and taped with cellotape. The sulphur is slowly released from the pads and then falls to the bottom of the box. Sulphur helps to extend the shelf life of the grapes and prevents the stems from drying out and browning. There are different types of sulphur pads available and they are used at different times during the year

## Handling and Merchandising

Stacking of boxes more than two layers deep can damage grapes at the bottom layer. Keep grapes refrigerated and minimise handling to maintian optimal quality.

## Selection and Storage

Grapes should be well-shaped, full coloured, plump and firmly attached to stems. Avoiding damaged, cracked and loose grapes, dry stems and brown areas at the stem connections.

## Preperation and Serving

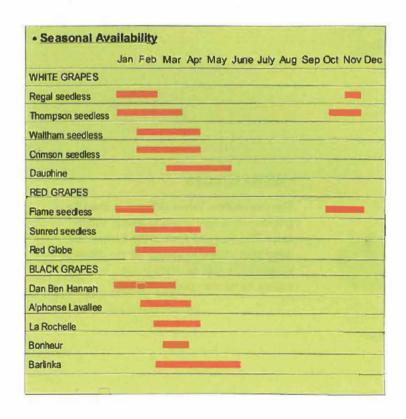
Grapes should be washed thoroughly before eating. Grapes are ideally suited as a luncheon dessert or to garnish savoury fish or meat platters. Remove from the stem and add to fruit salads. Mix grapes into your cereals and top with yoghurt. Grapes are also great on their own.

## Handling

Temperature	0°C - 5°C
Relative Humidity	85 %
Odour Sensitive	
Odour producer	
Moderately sensitive to fr	eezing injury

## • Nutrition Facts per 100g

Energy3	00k
Protein19	g
FatT	race
Carbohydrates 1	5g
Dietary Fibre 2	g







## **GRAPES**



Black Grapes

## · Black Grapes

Black grapes are sometimes confused with red grapes because their coloration can vary from deep rose pink to a purplish colour to black. Most of the flavour is found in the skin.



Red Grapes

## · Red Grapes

The coloration can vary from deep rose pink to a purplish red color. Most of the flavour resides in the skin. Red Globe is one of the customers favourite varieties. It has big, sweet berries with a crunchy texture.





Seedless Grapes

## · Seedless Grapes

Seedless grapes are available in white, red and black varieties. The first of these is the Sultana or Thompson seedless Grapes. They have a sweet crunchy taste.



White Grapes

## · White Grapes

The description "White Grapes" is used for grapes with a light green to amber yellow color. The size and form of the berries will differ from variety to variety. All the different varieties are sold as white grapes, with the variety name stamped on the box.



· Red Grapes

· Seedless grapes

· White Grapes



## **PEARS**

## · Handling and Merchandising

Pears are sensitive to handling and bruising. It is important to handle them as little as possible. Display them in the box in which the fruit arrived instead of "dumping" the fruit into an old box or display unit. Pears should be ripened at room temperature. Ripened fruit must be refrigerated and used as soon as possible.

## • Storage Temperature

Pears must be stored between 0.5°C and 4°C. During the cold chain process, from farm to store, this temperature should be maintained. Once the pears are delivered to the store, it is vital that they are stored in the back-up fridge before going to the shop floor.

## Handling

Temperature.......0°C
Relative Humidity......90 - 95%
Ethylene producer
Moderately sensitive to freezing injury

<ul> <li>Nutrition Facts</li> </ul>	per 100g
Energy	300kJ
Protein	1g
Fat	Trace
Carbohydrates	15g
Dietary Fibre	2g



## · Abate Fetel

The skin colour is green-yellow with a smooth brown russet (dark brown colour with a reddish-orange tinge)
It has conspicuous lenticel spots and a creamy flesh colour. The taste is good, sweet and it has a soft texture.



Abate Fetel





# Abate Fetel · Beurre Bosc · Beurre Hardy · Bon Chretien · Doyenne du comice Flamingo · Forelle Josephine · Packham's Triumph · Red D'Anjou · Rosemarie Starkrimson

## Beurre Bosc

This pear has an elongated shape. The colour is green-yellow with a brown overtone. The lentical spots are conspicuous and the flesh has a creamy colour. The taste is pleasantly sweet with a slightly coarse texture. This is a good storing pear. Bosc is excellent for poaching because of its suitable shape and firm flesh. Remove skin before cooking because the skin darkens and toughens when heated. The strong flavour lends itself for use with spiced toppings and flavoured sauces.



Beurre Bosc

## Beurre Hardy

This medium sized pear has a longish egg shape. The skin colour is green-yellow with a light brown tinge. The pear has inconspicuous lenticel spots. The texture is melting coarse with a creamy white flesh colour. It does not have a strong taste but still makes for a nice eating pear. Care should taken when handling these pears, as the stems break off easily.



Beurre Hardy

## Bon Chretien

Also known as Bartlett. Is a popular as canning fruit. The pear is bell shaped with green yellow colouration when picked. During ripening the skin turns yellow. The flesh has a creamy white colour and smooth and soft texture. When ripe, the pears are fragrant with a sweet and juicy taste.



Bon Chretien

Bon Rouge

## ·Bon Rouge

The background colour of this pear is green with a dull red over coloured when harvested. It has conspicuous lenticel spots. The flesh is creamy-white with a soft texture and a good taste. As the pear ripens, the background colour changes to yellow with a light red over colour.



## Doyenne du Comice

This egg shaped pear has a green-yellow colour with a slight red blush. The lenticel spots are conspicuous. The flesh colour is white and it has a fragrant, sweet taste with a soft, melting texture. It bruises easily and should handled with extreme care.



Doyenne du Comice

## Flamingo

The Flamingo has a longish egg shape. The pear has a yellow background colour with bright red blush. The lenticel spots are conspicuous. The flesh is creamy white with a soft texture and a good taste.



Flamingo

## Forelle

Forelle pears are picked in March and then have to be stored for 12 weeks at 5°C for its flavour to develop, only reaching the retail market by May. The pears have a green-yellow background with spots and a red blush. The sweet flavour makes this pear a favourite with its creamy-white flesh colour and slightly coarse texture.



Forelle

## Josephine

Josephine has a green-yellow skin colour. The flesh colour is creamy white and it has a slightly sweet taste. The texture is smooth and fine.



Josephine



Starkrimson



# Abate Fetel · Beurre Bosc · Beurre Hardy · Bon Chretien · Doyenne du comice · Flamingo · Forelle · Josephine · Packham's Triumph

Red D'AnjouRosemarieStarkrimson

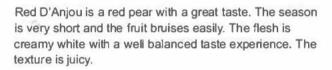
## ·Packham's Triumph

This pear is characterised by its large rounded shape and short neck. It has a green skin that turns to a light green gold colour when ripe. The white flesh is juicy and sweet when fully ripe. Remove skin before cooking because the skin darkens and toughens when heated. Use slightly under ripe, firm pears for cooking. Packham pears are also excellent eaten out of hand.



Packham's Triumph

## Red D'Anjou





Red D'Anjou

## Rosemarie

Rosemarie is a longish egg shaped pear. The background colour is yellow with a bright red blush. The fruit has conspicuous lenticel spots. The fruit has a soft white flesh with a good taste.



Rosemarie



Starkrimson

## • Starkrimson

Starkrimson is a medium to large fruit with a deep red skin. It does not have a long shelf life but has a good taste. The flesh is creamy white and the texture is soft when ripe.



## **APRICOTS**

## General Information

The fruit has a creamy sweet flavour. and is mainly used for canning and drying because of it fragile nature. Available mid-November to end of January.

## Handling and Merchandising

Most Apricots were propagated for cooking jam and not to have a good shelf life. Therefore apricots tend to go soft very quickly when it ripens. A first in first out policy should be maintained and fresh stock should be merchandised daily. Minimise handling by staff and consumers by keeping the fruit in its container. Remove any damaged and bruised fruit.

## Handling

## Grandir

Grandir is one of the varieties where the maturity is not tested by using the "Twist Test". Colour charts are used to determine this variety's ripeness. Grandir is harvested in early November. It has a orange yellow skin with red blush and an orange flesh. The taste is fair with a soft and melting texture.

## Peeka

Peeka is harvested middle december. The skin colour and flesh colour is yellow to orange. It has a good taste with a melting texture.

## SuperGold

SuperGold is harvested in early November. The skin is orange yellow with dark yellow flesh. It has a good taste with a firm and melting texture.

## Selection and Storage

The pressure (firmness of the flesh) test, as with peaches and nectarines, does not test the ripeness of apricots. For most of the apricot varieties the "twist test" is used. The fruit is cut along the seam and the two halves are the twisted in opposite directions. If it opens without leaving excess flesh on the pip, the fruit is Mature.

## Preparation and Serving

Apricots are excellent in fruit salads. They can also be used to make a fruity sauce for a fruit salad by putting them into a blender with a sweeter fruit like fresh dates. liquidize and pour over fruit salad. The fruit is popular for making jams and preserves and for drying. Add apricots to salads or use in cooking and baking.



Grandir



Peeka

## 



SuperGold

# Jan Feb Mar Apr May June July Aug Sep Oct Nov Dec Nectarines Peaches Apricots Yellow Clings Prunes Fresh Cherries Fresh Dates



A			

NI	0	t a	P 11	ne
IN	e	La		16

- Cherries
- Cling PeachesDessert Peaches
- Plums
- · Dates

# - Cherries Cling Peaches

Dessert Peaches

· Plums · Dates

## **NECTARINES**

## General Information

This nutritious and tasty fruit is related to the peach. The major difference being the smooth skin of nectarines compared to the soft hairy skin of the peach. The flesh has a very juicy and sweet taste. Available from end October to the end of March.

## Handling & Merchandising

Usually displayed in bulk form or pre-packed. In order to prevent bruising of the bottom fruit and excessive handling by customers, do not stack them. If the fruit is displayed at ambient temperatures, care must be taken to refresh the department regularly instead of making a big bulk display. Do not put the fresh fruit in the same box as the "old" fruit. It is important to handle nectarines as little as possible. Display them in the box in which the fruit arrived, on the A-frame trolleys instead of "dumping" the fruit into an old box or display unit.

## Selection and Storage

Nectarines are picked at the point where they will ripen naturally after being picked. The fruit is picked when the skin is still green and transported to the FDC and from there to the stores at a temperature of 0-5°C. This prevents the fruit from ripening too quickly, because when the fruit is merchandised at ambient temperature (Approx 20°C) the fruit ripens so quickly that it has no firmness after 3 days. This gives the customers no shelf life to keep the fruit at home. This is why it is so important to rotate fruit on a daily basis so that our customers can also benefit by having some time to keep the nectarines at home.

## Preparation and Serving

The nectarine is good eating fruit. It does not need peeling, which makes it a convenient snack fruit. Peaches and nectarines can be used in the same recipes for appealing fruit salads, desserts and salads. Different varieties of nectarines are available through-out the season.

## Handling

Temperature	0°C
Relative Humidity	90 - 95%
Ethylene producer :	sensitive to ethylene

## • Nutrition Facts per 100g

Energy	.223kJ
Protein	1g
Fat	Trace
Carbohydrates	19
Dietary Fibre	2g



Flamekist

## Flamekist

This is one of the last nectarines of the season. It is picked from middle February. The skin has a red blush on a green yellow background. The texture is stringy, firm and melting, has a cling stone.



## \*Flavortop

This nectarine has a full red skin with yellow flesh. The taste is excellent and the texture is medium fine, melting and firm and has a free stone.





## **NECTARINES**

## · Fiesta Red

Fiesta Red also tends to be a small fruit with a dark red skin. it is picked from middle November. The flesh is yellow with 70% red colour in the flesh when ripe. The fruit has a coarse, firm and melting texture with a very good taste.



Fiesta Red

## Margaret's Pride

Margaret's Pride is picked from middle December. The skin has a bright yellow undertone with bright red blush covering the yellow. The texture is melting, soft and taste is moderate to good. The skin semi-free, which means that it can be removed with some ease.



Margaret Pride

## · May Glo

This is one of the first nectarine of the season harvested in mid-end October. The fruit has a bright red skin colour with light yellow flesh. The taste is fairly acidic and the fruit tends to be small.



May Glo

## Nectared 9

Nectared 9 has a dark red skin with small speckles. The flesh is yellow with red in the stone cavity. The taste is good and the texture is fine and melting. It has a free stone.



Nectared 9





· Dessert Peaches

PlumsDates

## CHERRIES



## General Information

Regions like Eastern Free State, Ceres and Sutherland are famous for their cherries. These areas have cold winters with frost or snow needed for trees to break out of their dormancy. Cherries should be harvested with the stem to last longer. This, however makes the harvesting process labour intensive. The type of cherry grown in South Africa is called the red cherry.

## Handling and Merchandising

Cherries bruise easily and should be handled with care. They must be displayed in fridge or Multi-deck and should be rotated frequently because they are prone to internal browning.

## Selection and Storage

Choose glossy, firm and plump fruit with fresh green stems. Colour should range from yellow with red blush to bright red purple-red depending on variety.

## Preparation and Serving

Cherries can be used in fruit salads, salads, yoghurt, ice cream, cakes and desserts.

## Handling

Temperature......0°C Relative Humidity......90-95%

## · Nutritional facts per 100g

Energy	.274k
Protein	
Fat	Trace
Carbohydrates	13g
Dietary Fibre	



Nectarine

- Cherries

· Cling Peaches

Dessert Peaches

· Plums

· Dates



## PEACHES - CLING PEACHES & DESSERT PEACHES

## General Information

The fruit is often called the queen of fruits. Two categories exist, namely Clingstones, and Free Stones.

Clingstone varieties have a firm flesh that "clings" to the stone. Free stone varieties have a softer and juicier flesh that separates easily from the stone. The flesh is juicy and has a light yellow to bright yellow colour with reddish blush or white with pink blush. Available from end October to mid-March.

## Handling and Merchandising

Usually displayed in bulk form or pre-packed. It is however important not to stack them to minimise bruising of the bottom fruit and to prevent too much handling by consumers. If the fruit is displayed at ambient temperatures, care must be taken to refresh the department regularly instead of making a big bulk display. Do not place the fresh fruit in the same box as the "old" fruit. It is important to handle the fruit as little as possible. Rather keep the fruit in the box in which it arrives and put that directly onto the section.

## Selection and Storage

Peaches are picked at the point where they will ripen naturally after harvesting. The skin of the fruit is still green when picked and is then transported to cold room and from there to the stores at a temperature of 5°C. This prevents the fruit from ripening too quickly, because when the fruit is merchandised at ambient temperatures (Approx 20°C), the fruit ripens so quickly that it has no firmness after 3 days.

## Preparation and Serving

The peach is a convenient snack fruit. Substitute nectarines with peaches in the same recipes or use in desserts and salads. The fruit is ideal for cooking, baking, canning and bottling. It makes great jams or can be eaten with plain yoghurt. Remove fruit from refrigerator before eating to enhance the flavour.

## Handling

Temperature.....0-1°C Relative Humidity......90-95% Ethylene producer Highly sensitive to freezing temperatures

## Nutrition Facts per 110g

Energy196k
Protein1g
FatTrace
Carbohydrates7g
Dietary Fibre 2g





CherriesCling PeachesDessert Peaches

PlumsDates

## **CLING PEACHES**

Cling peaches have yellow, hairy skin with yellow flesh. It has a clingstone which means that the stone is not easily removed. Available from end of November to mid-March.

## Kakamas



texture

It is harvested from mid-February. It has a good taste and texture is similar to those of Oom Sarel and Neethling.

## Kakamas

## Neethling



It is harvested from mid-January. It also has a good taste with a non-melting, fine and firm texture.

Neethling

Oom Sarel

## · Oom Sarel

This is a well-known and liked variety. It is harvested from mid December. The taste is very good and the texture is non-melting, fine and firm.

## Nutrition Facts per 110g

Energy274k.
Protein2g
FatTrace
Carbohydrates 13g
Dietary Fibre 2g



## **DESSERT PEACHES**

Dessert peaches have a free stone with soft and juicy flesh. Available from end October to mid March.

## Earligrande

It is picked from late October. The skin colour is yellow with 75% red and the flesh has a yellow colour. The taste is fair and texture is slightly coarse, melting and soft. It has a clingstone



Earligrande

## • Elberta

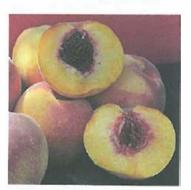
The peach is harvested from late January. The skin is yellow with a red blush. The flesh colour is yellow with red in the stone cavity. The taste is very good and the texture is melting and coarse. It has a free stone.



Elberta

## Fairtime

Fairtime is harvested from early March. The skin is yellow with a red blush. The flesh colour is yellow with red in the stone cavity. The taste is very good and the texture is melting and coarse, it has a free stone.



Fairtime

## Transvalia

Transvalia is harvested from mid November. It has a round oblong shape with red blushed skin colour on a yellow background colour. The flesh colour is yellow to orange. The taste is good and the texture is non-melting, fine and firm. It has a clingstone.



Transvalia







Dates

## PLUMS

## · Handling & Merchandising

Plums are extremely sensitive to handling and bruising. Fruit should be displayed in box in which it arrived. Open the flaps and place box on the section. Prepacks have the advantage of not being handled and should be merchandised in the multi-deck.

## Selection and Storage

Plums are climacteric fruit and the loose stone plums are picked at a "greenish" stage. This gives the fruit a longer shelf life. The fruit will develop it's full flavour in the store. Customers can hasten ripening by placing the plums in a brown bag.

## Preparation and Serving

Plums have various uses such as in jams and jellies, puree for sauces, sorbets and ice cream. It also very useful for pies and is great for canning and bottling. It can be enjoyed fresh, on its own, or added to fruit salads. In general, plums with dark flesh are the best for use in cooking where as the sugar content of light fleshed varieties makes it excellent for eating fresh.

## Handling

Temperature......0-1°C
Relative Humidity......90-95%
Ethylene producer
Ethylene sensitive
Highly sensitive to freezing temperatures



Harry Pickstone

## · Harry Pickstone

It has a green skin when harvested which turns dark-red with ripening. The flesh is yellow with a clingstone. It has a pleasant and sweet taste and melting texture.



Laetitia

## · Laetitia

It has a green skin when harvested which turns dark-red with ripening. The flesh is yellow with a clingstone. It has a pleasant and sweet taste and melting texture.



## · Ruby Nei

It has a green skin and dark red blush when harvested which turns a full red colour with ripening. The flesh is orange-yellow with a clingstone, it has a pleasant and sweet taste with a firmtexture.



Ruby Nel

## ·Songold

Its conical shape is also characterised by a yellow green colour when harvested and turns to yellow with a red blush when ripening. It has a yellow flesh with a clingstone. It has a good taste with a smooth and melting texture.



Songold

## · Nutrition Facts per 100g

Energy	232kJ
Protein	1g
Fat	Trace
Carbohydrates	11g
Dietary Fibre	2g







PlumsDates

## PRUNES



## · Nutritional facts per 100g

F
Energy283kJ
Protein1g
FatTrace
Carbohydrates13g
Dietary Fibre3g

## General Information

Prunes have a high enough sugar content to permit drying of the fruit without fermenting around the pip. Two prune varieties often used are Prune D'Agen and Giant Prune. Prunes are picked when fully matured in order to have enough sugar. Fresh prunes have a very sweet flavour. It has a very short season and needs vigorous marketing. Available from end of January to mid March

## · Handling and Merchandising

Fresh prunes should be handled in the same way as plums. Prunes are much smaller then plums and are mostly sold in pre packs or 2Kg boxes. Ensure that the fruit is regularly rotated.

• Selection and Storage
Prunes should be stored
chilled. To ensure that the
fruit looks fresh and has a
longer shelf life, use smaller
displays. Displays should

be rotated frequently.

Preperation and Serving
 Prunes can be enjoyed fresh
 as a sweet snack or added
 to salads and cereals.

 Prunes have various uses
 such as in jams, puree for
 sauces, sorbets and ice
 cream.

## • <u>Handling</u> Temperature......0° C

Relative Humidity...90-95% Ethylene producer

## DATES (FRESH)



## · Nutritional facts per 100g

Energy	SDTL
Protein	
Fat	
Carbohydrates	
Dietary Fibre	30

## General Information

Dates grow in very dry conditions. Depending. on the variety, the fruit could be long and narrow, long and plump or round shaped. It has a very sweet flavour and shiny smooth paper like skin. The fruit is picked when ripe with colour that ranges from light brown to dark brown. With local and imports complimentry each other, dates are available all year round.

## Handling and Merchandising

Dates have a long shelf life because of their low respiration rate. They are packed into pre packs that should be displayed in the multi-decks.

## · Preparation and Serving

Dates can be eaten as a high-energy snack or added to fruit salads, cereal or desserts. They are also very useful in baking.

## Handling

Temperature......0-4°C Relative Humidity...75-80% Odour sensitive

## Apricots

- Nectarines
- Cherries
- Cling Peaches
- Dessert Peaches
- · Plums
- · Dates



## **AVOCADO**

## General Information

The avocado is usually regarded as a vegetable, even though it is a fruit. It is the only fruit containing oil (16-25%) with mainly Polysaturated fats. Its texture is oily and buttery. The avocado is a good source of riboflavin, niacin and thiamin. It is regarded as one of the most nutritious fruits.

## · Selection and Storage

Choose well shaped fruit without any soft, black spots or cracks. Lightly press the avocado around the neck to test for ripeness. It should yield to slight pressure. Brown spots on the skin should not necessarily indicate affected quality. Unripe fruit should be stored at room temperature for 3 to 5 days. Ripe fruit can be refrigerated but use as soon as possible. Use lemon juice to coat the fruit once it has been cut.

## · Handling & Merchandising

Provide information on ripening hard and unripened fruit to consumers. Putting an avocado in a paper bag with a banana or leaving it at room temperature for 3 to 5 days will allow it to ripen. Unripe avocados should not be refrigerated or displayed on a cold surface because it will affect the quality. Always remove damaged soft (decaying) bruised and discoloured avo's from display.

## Preparation and Serving

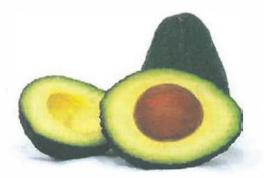
Ripe fruit should be used as soon as possible. Avocados go well with fresh or pasta salads, sliced on a sandwich. When mashed, it can be used as a spread on toast or to make an enticing dip. For pizzas, sliced avocado should be added only during the last few minutes of grilling to avoid bitterness

## Handling

Temperature4-13°C
Relative Humidity85-90%
Ethylene producer Odour producer
Highly sensitive to freezing injury
Susceptible to chilling injury

## Nutrition Facts per 100g

Energy	1021kJ
Protein	.2g
Fat	24g
Carbohydrates	2g
Dietary Fibre	. 6g
Folate	. 29ug
Vitamin C	1mg



## Edranol

An oval/pear shaped medium-large to large fruit with thick green coloured skin with small black speckles (Lenticels). Stays green coloured when ripe.

Availability: June until late September





PersimmonPineapple

## Banana Cactus Pea Carambola (Star Fruit) Granadilla · Guava · Kiwi fruit Litchi Mango · Papaya Persimmon · Pineapple

## · Fuerte

A pear shaped avocado with thin green skin, Creamy smooth buttery flesh and large seed. Skin stays green coloured when ripe. Flesh bruises easily.

Availability: Mid to Late February until early August.



## · Hass

A smaller shaped avocado with thick green, pebbly skin which changes colour to purple/black when ripe and ready to eat. Skin does not yield to pressure easily - once soft and shrivelled, fruit is overripe. Small seed and rich, nutty flavoured.

Availability: Mid May until end of October

Hass



A medium to large fruit with thickish neck and thick, rough, green-coloured skin that stay green when ripe. The thick skin does not yield to pressure easily.

Availability: June-July



Pinkerton

## Ryan

A large sized, late season egg shaped fruit with slightly rough dark green skin that stays green when ripe.

Availability: August - September until October - November



Ryan



## **BANANAS**

## General Information

This tropical fruit is one of the most popular in the world. Bananas enjoy a tropical to subtropical climate, which is frost free, warm and humid. Bananas are available all year round.

## · Handling and Merchandising

Avoid stacking bananas too high. The bottom layer will be bruised and squashed, leading to soft decayed fruit. Damage will be minimized, by not stacking or being handled by customers. Merchandise in a highly visible area, as it is a customer draw card.

## Handling

## • Nutrition Facts per 100g

Energy382k.
Protein2g
FatTrace
Carbohydrates 19g
Dietary Fibre2g
Folate 19uq

## Selection and Storage

Choose well coloured, plump yellow fruit without and bruises and soft spots. Fruit with green tips are still unripe, while yellow fruit is riper and fuller ripeness occurs when the fruit has black spots.

## · Preperation and Serving

The banana is great snack food because of its convenience. It peels easily and the flesh is very nutritious. The banana is excellent for eating in between meals. Slice it and enjoy with cereal or use in fruit salads and fruit shakes. Fully ripened bananas are ideal for baking breads and cakes.



Rananas

## **CACTUS PEAR (PRICKLY PEAR)**

## General Information

It is cylindrical and varies from 6 to 8cm in length It is yellow orange or red purple in colour and the skin is covered with thorns. The fruit flesh is White, Pink, Yellow, Orange or Red, taste sweet and usually encloses edible seeds.

Available: from December to May

## Handling and Merchandising

Do not stack to high if sold loose, Sell prepacked in boxes or punnets. Thoms should be removed



Cactus Pear

## Selection and Storage

Select well coloured fruit without bruises. Store in refrigerator in a paper bag.

## Preperation and Serving

Most thorns are removed during the wash and packing process on the farm. Wash fruit with a stiff brush to remove thorns. Cut a slice from the top and the base of the fruit then slice the remaining skin off, cut downwards. Served sliced with lime or lemon juice. It can also be pureed and used in cream on other desserts.





CoconutGranadillaGuavaKiwi fruitLitchi

MangoPapayaPersimmonPineapple



 Papaya Persimmon Pineapple

### CARAMBOLA

### General Information

The Carambola or Star fruit is attractive fruit with a glossy yellow colour and tart taste. When sliced, the fruit resembles star shapes. Available: February to September

### Handling and Merchandising

Only display ripe yellow star fruit and stack the fruit only two layers high. Too many layers will damage, bruise and squash the bottom fruit. Because of the unusualness, the fruit can be the main attraction in fruit baskets. Promote the fruit by demonstrating ways of preparation and informing the consumer of the low energy value and recipes. Merchandise the fruit with other Tropical fruit like: Pineapples, Mangoes Kiwi fruit and papayas

· Handling

Temperature......16°C - 18°C Relative Humidity.....85-90% Ethylene Sensitive Susceptible to chilling injury

Nutrition Facts per 100g

Energy	180kJ
Protein	.1g
Fat	0g
Carbohydrates	. 10g
Dietary Fibre	3g

### Selection and Storage

Choose well coloured, plump yellow fruit without and bruises and soft spots. Fruit with green tips are still unripe, while yellow fruit is riper and fuller ripeness occurs when the fruit has black spots.

### Preperation and Serving

The banana is great snack food because of its convenience. It peels easily and the flesh is very nutritious. The banana is excellent for eating in between meals. Slice it and enjoy with cereal or use in fruit salads and fruit shakes. Fully ripened bananas are ideal for baking breads and cakes.



Carambola

### COCONUT

### General Information

Although hard work to open. The coconut rewards the effort with a refreshing liquid and sweet flesh. The fruit is multi layered with a hard shell which is removed before being exported. The other layers are the hairy brown husk, a tough membrane and white flesh. The fruit is imported into South Africa from tropical countries

### Handling and Merchandising

Despite the hard shell, the coconuts on display should not be stacked too high because the coconuts are likely to crack. Promote the coconuts with other tropical fruits like Bananas, Pineapples, Papayas and Kiwi fruits for a tropical display.

• Handling

Temperature.....+-10°C Relative Humidity......75% Avoid extreme temperatures

Nutrition Facts per 100g

Energy	1480kJ
Protein	3g
Fat	30g
Carbohydrates	3g
Dietary Fibre	12a

### Selection and Storage

Select coconuts that feel heavy for their size and listen for liquid movement inside. The three "eyes" should not be wet and avoid any mouldiness. Whole coconuts can be refrigerated for weeks before use. Cut coconuts can be refrigerated for up to two weeks while the liquid or juice can only be stored for one day, unless frozen for later use.

### Preperation and Serving

Drain the liquid by drilling through the "eyes". Blend the liquid with salads and puddings. Sprinkle grated coconut over salads or use in desserts.



Coconuts



### **GRANADILLA**

### General Information

This tropical fruit is also known as the passion fruit. The fruit has a tough leathery skin with a red purple to brownish purple colour when ripe. It has yellow flesh with edible black seeds, a sweet taste and strong flavour.

### · Handling and Merchandising

Because of its tough skin, it should be able to withstand a bit of handling. It is however important to refrigerate ripe fruit to slow down dehydration. Unripe fruit should be displayed at room temperature till they ripen.

### Handling

### • Nutrition Facts per 100g

Energy	450kJ
Protein	.2g
Fat	Trace
Carbohydrates	. 13g
Dietary Fibre	. 1g
Folate	84ug

### **GUAVA**

### General Information

The guava has the highest vitamin C content of the commonly available fruit containing more than 6 times the recommended intake of vitamin C. It is also a good source of fibre and vitamin A. The fruit grows particularly well in subtropical areas of South Africa, especially in Mpumalanga and the Westem Cape's Mediterranean climate.

Available: April to July

### . Handling and Merchandising

Displays should not be stacked too high to minimize consumer handling and damage to fruit on the bottom. Green fruit should be displayed at room temperature, separate from ripe ones.

### Handling

### Nutrition Facts per 100g

the strategic of the party of	
Energy	290kJ
Protein	1g
Fat	Trace
Carbohydrates	8g
Dietary Fibre	8g
Vitamin C	347mg
Folate	19ug
Vitamin A	1019µg

### Selection and Storage

Choose heavy fruit with firm and smooth skin. Unripe fruit should be stored at room temperature, while ripe fruit can be refrigerated for up to a week.

### Preperation and Serving

Use the flesh to make sauces to serve with ice cream. For an excellent tropical fruit juice or salad, add Granadilla pulp.



Granadilla

### Selection and Storage

Buy firm, undamaged fruit. When specifically choosing ripe fruit, the skin should be yellow and yield slightly to the touch. Store unripe fruit at room temperature until ripe. Ripe fruit can be refrigerated for several days.

### Preperation and Serving

Guavas can be eaten fresh, especially new varieties that don't have a lot of seeds. Guavas make excellent juices and are great for canning or bottling. The fruit is also suitable for jams.



Guava





GuavaKiwi fruitLitchiMango

PapayaPersimmonPineapple



### KIWIFRUIT

### General Information

It is a egg shaped fruit with a thin brown, tough, hairy skin enclosing bright green and yellow flesh with black seeds. The yellow flesh (Gold Kiwi) has a distinctive flavour.

### · Handling and Merchandising

Bulk display should not be stacked too high to minimise damage from bruising. Distinguish between ripe and unripe fruit to minimise handling by consumers. Refrigerate only ripe fruit and let unripe fruit ripen at room temperature. Green kiwi's are available August to October.

### Handling

Temperature	0°C
Relative Humidity	90-95%
Susceptible to chilling in	njury

### Nutrition Facts per 100g

Energy	294kJ
Protein	
Fat	1g
Carbohydrates	13g
Dietary Fibre	3g
Vitamin C	87ma

### Selection and Storage

Choose large, well shaped, undamaged, firm fruit. Ripe fruit yields slightly when pressed. Ripened at room temperature and store ripe fruit in refrigerator.

### Preperation and Serving

Rub fruit to remove hairs. Fruit can be eaten fresh from skin with teaspoon or peeled and then halved, sliced or diced. Add to fruit salad, use in tarts or cheese platters. Serve with ice cream for a dessert.



Green

### LITCHI

### General Information

The fruit has a pinkish red to red brown leathery skin. The pinkish red colouration indicates freshness. During storage, especially daily cold storage, the skin turns to a brown colour. The flesh is sweet and has a white colour and encloses an inedible seed. Litchis are available from end November until mid January. It is a common practice to treat the skin with sulphur to prolong shelf life.

### Handling and Merchandising

Display fruit either bulk or as pre-packs. Bulk display should not be stacked to high to minimise damage as a result of splitting. Pre-packs will minimise consumer handling.

### Handling

Temperature	2-6°C
Relative Humidity	90-95%
Ethylene producer	
Susceptible to chilling	injury

### • Nutrition Facts per 100g

Energy	.327kJ
Protein	.1g
Fat	Trace
Carbohydrates	. 17g
Dietary Fibre	1g
Folate	133ua

### Selection and Storage

Select fruit with evenly coloured skin and moist appearance. Keep ripe fruit refrigerated to increase shelf life.

### · Preparation and Serving

Litchis are mainly eaten fresh but can also be canned or peeled and mixed into a fruit salad



Litchi



### MANGO

### General Information

More people around the world eat the luscious fresh mango than any other fruit.

### . Handling and Merchandising

Mangoes are picked when they are mature but hard enough to withstand the handling they undergo until they reach the consumer. Display mangoes at a temperature of between 11-15°C. The fruit is very perishable-handling by consumers should be minimised. Promote the fruit by providing information on nutrition, recipes and some samples

### Handling

### Nutrition Facts per 100g

Energy3	803k
Protein1	9
Fat	race
Carbohydrates	15g
Dietary Fibre 2	g
Folate 40	Dug
Vitamin A 66	рд
Vitamin C 31	mg

### Selection and Storage

Select fruit is firm but soft to touch and has a pleasant aroma at the stem end. Store mangoes at room temperature until fully ripe and then refrigerate. Use as soon as possible once ripe. Avoid shrivelled fruit and fruit with black and grey spots.

### · Preperation and Serving

Eat fresh or mix into fruit salads, ic creams and sorbets. Mangoes are great for juicing and are also used to make chutney.

### Keitt

Large mango with pinkish skin. Sweet with pleasant aroma. Stringless

Available: February to April



Keitt

### Kent

Medium to large oval shaped mango. Skin is mainly green, even when it is ripe to eat. Deep yellow flesh and full flavour. Stringless

Available: Mid February to March



Kent





Banana

Cactus Pe

Carambola

(Star Fruit)
- Coconut

GuavaKiwi fruit

MangoPapayaPersimmonPineapple

### MANGO



Sensation

### Sensation

Small to medium sized with a green background and purple to red tinges. Stringless

Available: February to April

Tommy Atkins

### 4



Large, oval mango, with round apex. Flesh reasonably stringless.

Available: Early December to February.

Tommy Atkins

Zill

### ·Zill

Mild, sweet flavour and it changes from purple to red as it ripens. Flesh is smooth and firm with a sweet taste. Stringless

Available: December to February



Banana

- Cactus Pear

· Carambola (Star Fruit)

· Coconut

Granadilla

· Guava

Kiwi fruit

· Litchi

· Mango

Papaya

Persimmon

· Pineapple



### PAPAYA

### General Information

The papaya is sometimes incorrectly called a paw paw. This fruit has juicy yellow orange to red orange flesh. Rich in Vitamin A and C. The skin is green and turns yellow when ripe. The fruit contains the enzyme papain, which is used in meat tenderising. The paw paw is more traditional variety, and has a roundish shape. The yellow flesh has a distinct aroma. Available throughout the year with low season from December to January.

### · Handling and Merchandising

This a popular fruit and is regularly displayed with bananas, pineapples and mangoes. Do not stack more than two layers to prevent bruising of bottom fruit. Distinguish between ripe and unripe fruit to minimise handling by consumers. Refrigerate only ripe and fresh cut fruit and let unripe fruit ripen in room temperature. Promote papaya by displaying different types of presentation like fruit salads and papaya 'boats' that serve as a container for fruit salads in the salad bar.

### . Selection and Storage

Unripe fruit will ripen quickly at room temperature. Ripe fruit should be refrigerated and used as soon as possible. Unripe fruit becomes "lumpy" and loses some of its flavour when refrigerated.

### · Preperation and Serving

Ripe papaya is best eaten fresh. It is also excellent as part of a salad. Purees can be used in ice cream and sorbets. Sprinkle papaya juice on meat before cooking for tenderising.

### Handling

### Nutrition Facts per 100g

- ITALI HOLD I GOLD	DO:	1009
Energy		186k
Protein		Trace
Fat		Trace
Carbohydrates		
Dietary Fibre		2g
Folate	'	14ug
Vitamin A	1	01µg
Vitamin C	8	37mg
Calcium	2	4mg



Papaya



Paw-Paw



Subtropica

Cactus PeaCarambola(Star Fruit)Coconut

Guava
 Kiwi fruit

MangoPapayaPersimmonPineapple

# Carambola (Star Fruit) · Guava

LitchiMangoPapayaPersimmonPineapple

### **PERSIMMON**

### General Information

There are three types of Persimmons.

- 1) The old astringent variety that has to be fully ripe before it can be eaten. When ripe, the flesh becomes jelly.
- The sweet Persimmon is crisp and sweet when ripe with a tropical flavour. There are different varieties of this type.
   Available from March lo May.
- 3) "Sharon Fruit" looks like a sweet Persimmon but has be treated with Co2 to improve the flavour. Available from May to June. The fruit is still unknown and it is important to cut tasters for customers. Take note that it is not a tomato. The calyx leaves tend to turn brown although the fruit is of prime quality.

### Handling and Merchandising

Fruit should be refrigerated. If the fruit is refrigerated and then placed in ambient, it will become very soft which will negatively affect the taste experience.

### Selection and Storage

Choose fruit with a bright orange skin colour. Persimmons are very sensitive to ethylene which will shorten the shelf life drastically.

### Preparation and Serving

A very pleasant fresh fruit. It should be eaten peeled. Peel fruit and cut into rounds. The star like pip cavity makes it very attractive. Ideal for use in fruit salads, cooked as a jelly or sorbet.

### Handling

Temperature......7°C - 10°C
Relative Humidity......85-90% plus
Sensitive to ethylene
Susceptible to chilling injury

### Nutrition Facts per 100g

Energy334kJ
Protein 1g
FatTrace
Carbohydrates 15g
Dietary Fibre 4g
Vitamin A 14µg
Vitamin C 158mg



Persimmon



### **PINEAPPLES**

### General Information

Available all year with peak supply November to May. The Queen pineapples are smaller variety and is less juicy than Cayenne. The keeping qualities are better than Cayenne and has been selected for fresh consumption and it is not suitable for canning. The crown is more "Prickly" than the Cayenne and its generally sweeter. Cayenne is a larger, more cylindrical fruit with a light yellow flesh colour. The fruit is very juicy and doesn't store well. It is more suited for canning and juicing purposes, but also has a pleasant taste.

### · Handling and Merchandising

Merchandising fresh-cut pineapple in the salad bar, uncut pineapple with the other tropical and subtropical fruit.

### Selection and Storage

Pineapples should be heavy for their size. well shaped and fresh looking with a dark green crown. Shells should be dry, crisp and range in colour from yellowish green to golden yellow. Pineapples must be ripened after harvest. the shell turns yellow with time. Avoid fruit with sunken or pointed eyes, dull, discoloured or bruised skin or brown leaves. Store whole ripe pineapples, tightly sealed, in the refrigerator for for maximum 3 days.

### · Preperation and Serving

Combine pineapple wedges with other fresh fruits for a pretty dessert presentation. Add fresh pineapple slices or pieces to fresh fruit salads and compotes.

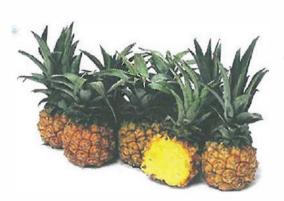
### Handling

### · Nutrition Facts per 100g

Energy	.247kJ
Protein	1g
Fat	.Trace
Carbohydrates	12g
Dietary Fibre	2g
Folate	16ug
Vitamin C	13mg



Cayenne Pineapple



Queen Pineapple





- Avocado
- · Banana
- Cactus PeaCarambola

(Star Fruit)

- · Coconut
- Granadill
- Guava
- · Kiwi fruit
- LitchiMango
- Papaya
- Persimmon
- · Pineapple



### General Information

Figs are produced in warm, humid and frost free regions. The fruit is the shape of a small pear with skin colour that ranges from green and yellow to purple, black and brown. The seedy flesh is pinkish red or white with a sweet flavour.

Available: October to April

## • Preperation and Serving Figs can be eaten peeled or whole. Use figs in salads or add chopped figs to cereal and plain yoghurt. Figs are also commonly used for cooking and baking. Fresh figs and cheese platter makes for an excellent dessert.

### Handling and Merchandising

The fig is very perishable and should be handled carefully and sold quickly. Displays should be refrigerated. Handling can be minimised by displaying the figs in their delivered packaging.

### Selection and Storage

Choose plump firm fruit that feels heavy for its size. The fruit should not be too hard or too soft. Avoid fruit with broken skin and mushy spots or fruit with a sour or fermented smell, which indicates old and overripe fruit. At home keep fruit refrigerated for up to 2 days in a container lined with paper towel to slow dehydration.

### Temperature......0-4°C Relative Humidity...85-90% Choose

### QUINCE



·Nutritional facts per 100g

Energy....

Carbohydrates...

Dietary Fibre....

Handling

Odour sensitive

Ripen at room temperature

Fat

353kJ

140

### · Nutritional facts per 100g

Energy	271kJ
Protein	
Fat	Trace
Carbohydrales	149
Dietary Eibre	20

### Handling

Temperature......2-5°C Relative Humidity...90-95% Ethylene sensitive..Yes

### General Information

It is climacteric fruit, which means that the fruits flavour will improve after its picked. Quinces have a very firm and dry texture with a slight sour taste when eaten. The fruit has a yellow to slight green colour. It is mostly known by the older generation and customers need to be educated when this product is in store. Tasters are a good idea but keep in mind that the fruit will turn brown when cut.

Available: early February to end June

### · Handling and Merchandising

The quince has a very long shelf life and can be stored in the chiller for long periods of time. However, once they are displayed at ambient in the store, Care must be taken to rotate the fruit and remove fruit that becomes wilted or brown.

### Handling and Merchandising

Use fruit in marmalades, jams and jellies. Once quince is cooked the flesh colour changes to a deep pink, almost red colour

### **MELONS**

### · Galia Melon

### • General Information

This is a small, round melon with netted, dark green skin which turns yellow when ripe. The flesh is sweet and has a green white colour.

Available: October to April

### • Handling and Merchandising

Display melons only two layers high to avoid bruising the bottom layer. Display fruit with a uniform size and shape to minimise handling by consumers. Display wrapped melon halves to show the attractive green white flesh. Also combine with other melons, Strawberries, grapes and kiwi fruit.

### Handling

### • Nutrition Facts per 100g

Energy	180kJ
Protein	1g
Fat	Trace
Carbohydrates	8g
Dietary Fibre	1g
Vitamin C	35mg

### **Honey Dew**

### • General Information

The honey dew winter melon is oval in shape with creamy white skin. The flesh is a green white colour and has a delicate flavour. When ripe, the fruit emits a fragrant smell. Available year round. Limited quantities available during winter.

### • Handling and Merchandising

Display melons only two layes high to avoid bruising the bottom layers. Display fruit with a uniform size and shape to minimise handling by consumers. Display wrapped melon halves to show the attractive green white flesh. Also combine with other melons, strawberries, grapes and kiwi fruit.

### Handling

### • Nutrition Facts per 100g

Energy	180k <b>J</b>
Protein	1g
Fat	Trace
Carbohydrates	8g
Dietary Fibre	1g
Vitamin C	35mg

### • Selection and Storage

This melon must be harvested after it has reached maturity. It will fully ripen at room temperature. The fruit shold have a sweet spicy fragrance at room temperature. Excessively firm or soft fruits and fruits with soft, watery spots and cracks should be avoided. Dark fungal spots. Cut fruit should be wrapped and refrigerated and used as soon as possible because of the possibility of chilling injury.

### • Preparation and Serving

Melons are ideal for salads or just eaten fresh.



Galia Melor

### • Selection and Storage

Choose fruit that has matured before picking. The fruit will have a sweet smell at room temperature. Excessive hardness or softness, soft and watery spots and cracks shold be avoided. Dark fungal spots may be present at these soft or cracked spots. Cut fruit should be wrapped and refrigerated and used as soon as possible because of possibilty of chilling injuries.

### • Preparation and Serving

Honey Dew is ideal for salads or just eaten fresh



Honey Dew







### SPANSPEK

### General Information

Spanspek is also known as cantaloupe. The fruit is small round melon with a netted off white skin. The flesh is sweet and yellow orange colour. This fruit is escpecially rich in Vitamin A and C as well as Potassium. Available year round. Limited quantities available during winter

### Handling and Merchandising

Display melons only two layers high to avoid bruising the bottom layer. Display fruit with a uniform size and shape to minimise handling by consumers. Display wrapped melon halves to show the attractive green white flesh. Also combine with other melons, Starwberries, grapes and kiwi fruit.

### Handling

### Nutrition Facts per 100g

Energy	180kJ
Protein	1g
Fat	Trace
Carbohydrates	8g
Dietary Fibre	1g
Vitamin C	35mg
Vitamin A	116µg

### Selection and Storage

Choose fruit that has matured before picking. The stem end will give slightly to pressure and will have a sweet smell. Excessively firm or soft fruits and fruits with soft, watery spots and cracks shoul be avoided. Cut fruit should be wrapped and refrigerated and used as soon as possible because of the possibility of chilling injury.

### Preparation and Serving

Spanspek are ideal for salads or just eaten fresh.



Spanspek

### WATERMELON

### General Information

The watermelon is usually oblong and sometimes round and large. The skin is hard, and the colour is light to dark green, depending on the variety. The flesh is usually bright red with black seeds but seedless or yellow flesh varieties are also available. This fruit is an excellent source of Vitamin C and is quite refreshing, especially on a hot summers day. The red colour is caused by lycopene, a caroteniod pigment which has antioxidant proerties. Sugarbaby types are available all year and quanintiy influenced by climate.

### · Handling and Merchandising

Display watermelons either as a whole fruit or cut the fruit in halves, quarters or smaller pieces. Fresh cut watermelons shold also be promoted as a healthy and easy salad at barbeques. Fresh cut watermelons can be combined with other types of melon to create more variety.

### Handling

Temperature............10-15°C
Relative Humidity........90%
Ethylene sensitive
Susceptible to chilling injury

### • Nutrition Facts per 100g

Energy	138kJ
Protein	1g
Fat	Trace
Carbohydrates	8g
Dietary Fibre	1g
Vitamin C	35mg

### Selection and Storage

Watermelons shold have a smooth surface, dull green colour but creamy underside. Avoid fruit with flat side and soft skin. Watermelons can be kept at room temperature but once cut should be refrigerated for up to a week.

### • Preparation and Serving

Cut the fruit in halves, quarters or smaller pieces. Add fruit to salads in ball shaped or cubicle shaped pieces. Present in different ways such as fruit salads in a watermelon basket, or melon kebab.



Watermelon



### Vegetables



### General Information

Vegetable quality is generally at a peak at harvest and decreases as the product moves from packing to the final consumer. Fresh vegetable crops are diverse in morphological structures (roots, shoots, tubers, bulbs, etc.), in composition and general physiology. Commodity requirements and recommendations for maximum post harvest life vary among various groups of commodities.

### BIOLOGICAL FACTORS Respiration

Respiration is continuing process for harvested vegetables. During respiration, the vegetable will transform stored sugars into energy, releasing water, carbon dioxide and heat. Respiration rates vary among commodities: vegetables such as cabbage and potatoes have low respiration rates, others such as asparagus and sweet corn have high respiration rates. For all vegetables, respiration is affected by temperature - as the temperature decreases so does the respiration rate.

### **Ethylene Production**

Ethylene is a colourless gas with a faint sweetish smell that is a naturally produced ripening hormone of some vegetables. Ethylene can be used to promote faster and more uniform ripening of vegetables (E.g Tomatoes) picked at mature green stage. There are two classes of fresh produce in terms of ethylene production namely:

<u>Climacteric:</u> Products that will ripen after harvest (Softening Changing of Colour), for example Tomatoes.

Non-Climacteric Products: Products that do not change significantly after harvest, for example brinjals, cucumber, peppers. Vegetables sensitive to ethylene include: Asparagus, Beans, Broccolli, Brussel Sprouts, Cabbage, Carrots, Celery, Cucumber, Brinjals, Endive, Leeks, Lettuce, Peas(in pods), Bell Peppers, Chillies, Potatoes (late), Spinach, Sweet Potatoes, Tomatoes.

### **Compositional Changes**

Many changes in pigments take place during development and maturation of the commodity and may be desirable or not, for example:

- Loss of chlorophyll (green colour) Not desirable for vegetables e.g Green Beans
- Colour development Desirable e.g the red colour that develops in tomatoes during ripening

### **Growth and development**

Rooting of onions and root caps is undesirable. Sprouting of potatoes, onions, garlic and root crops greatly reduces their utilization value.

### Water Loss

Water loss can result in wilting and shrivelling which damages appearance and customer appeal. Water loss from produce occurs through the opening in the cuticle of the vegetable, often as a result

of mechanical damage during harvest. Any cut vegetables (Such as asparagus) can lose much of its water through cut end of the stalk. Some vegetables are more susceptible to quality changes due to water loss, with leafy green vegetables being the most susceptible and hard shell vegetables like squashes and pumpkins being less susceptible. Besides the relative humidity of the air surrounding the vegetables, water loss is affected by temperature. As temperature decreases, so does the rate of water loss.

### **Physical Damage**

Various types of physical damage (Surface injuries, bruising, etc.) are major contributors to deterioration. Mechanical injuries are not only unsightly, but can also cause water loss and entry areas for bacteria and fungi.

### Pathological Breakdown

One of the most common and obvious symptoms of deterioration results from the activity of bacteria and fungi. Most of the fungi and bacteria can enter the wounds or natural opening.

### ENVIRONMENTAL FACTORS Temperature

Temperature is the single most important factor in maintaining quality after harvest. Holding perishable vegetables at low temperatures is an important tool in controlling quality losses due to respiration, water loss and post harvest decay. However, exposure of the commodity to undesirable temperatures can result in physiological disorders. There are various types of injuries due to temperature namely freezing, chilling and heating injury. Crops sensitive to chilling injury include: Cucumbers, Brinjals, Pumpkins. Squashes, Sweet Patatoes, Snap Beans, Peppers, Tomatoes, Lettuce, Garlic and Bulb Onions.

### Relative Humidity(RH)

The RH can directly influence the water loss in produce. Most vegetables crops retain better quality at high RH, but the higher the RH, the more disease growth is encouraged.

### **Atmospheric Composition**

Reduction of oxygen and elevation of carbon dioxide, whether intentional (Modified or Controlled Atmosphere) or unintentional, can either delay or accelerate deterioration of fresh vegetables.

### **Light**

Exposure of potatoes to light should be avoided because it results in greening due to the formation of chlorophyll.



### **AGROWEX SEASONAL AVAILABILITY CHART**





### Crisp Lettuce



### General Information

Crisp lettuce has a tight solid head and is available all year round.

Preparation and Serving
Wash, drain well and pat dry,
break or shed into salads. Also
for presentation on platters or
shaped into cups for individual
portions

### Handling and Merchandising

Cross merchandise with other salad ingredients. Lettuce is ethylene sensitive, so do not merchandise with ethylene producers such as bananas

### · Nutritional facts per 100g

Energy	67kJ
Protein	1g
Fat	Trace
Carbohydrates	2g
Dietary Fibre	2g

### Handling

Temperature.......2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### Selection and Storage

Firm, fresh heads should be an even green colour and heavy for its size. Check for tip burn,a brown area around the edges of the leaves and avoid any that have slimy edges, refrigerate unwashed in a sealed bag for up to 2 weeks. Highly sensitive to freezing injury.

### **Cos Lettuce**



### · utritional facts per 100g

Energy	67kJ
Protein	1g
Fat	Trace
Carbohydrates	2g
Dietani Fibre	20

### Handling

Temperature.......2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### General Information

Cos (Romaine) lettuce has a cylindrical shape and it tastes sweetly bitter with a good crunch. It is available all year round.

### · Handling and Merchandising

Cross merchandise with other salad ingredients. Lettuce is ethylene sensitive so do not merchandise with ethylene producers such as bananas

### Selection and Storage

Look for crisp leaves with no brown spots or edges. Wash drain and dry throughly before refrigeration. Refrigerate head and washed leaves, in a sealed bag for up to one week.

• Preparation and Serving
Preferred in a caesar salad.





### · Crisp Lettuce



### General Information

Crisp lettuce has a tight solid head and is available all year round.

### Handling and Merchandising

Cross merchandise with other salad ingredients. Lettuce is ethylene sensitive, so do not merchandise with ethylene producers such as bananas

### Preparation and Serving Wash, drain well and pat dry, break or shed into salads. Also for presentation on platters or shaped into cups for individual portions

### · Nutritional facts per 100g

Energy		 67kJ
Protein		 1g
Fat		 Тгасе
Carbon	ydrates	 2g
Dietary	Fibre	 2g

### Handling

Temperature......2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### Selection and Storage

Firm, fresh heads should be an even green colour and heavy for its size.

Check for tip burn,a brown area around the edges of the leaves and avoid any that have slimy edges, refrigerate unwashed in a sealed bag for up to 2 weeks. Highly sensitive to freezing injury.

### Cos Lettuce



### · Nutritional facts per 100g

Energy	 67kJ
Protein	 1g
Fat	Trace
Carbohycrates	 2g
Dietary Fibre	20

### • Handling

Temperature.......2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### General Information

Cos (Romaine) lettuce has a cylindrical shape and it tastes sweetly bitter with a good crunch. It is available all year round.

### · Handling and Merchandising

Cross merchandise with other salad ingredients. Lettuce is ethylene sensitive so do not merchandise with ethylene producers such as bananas

### · Selection and Storage

Look for crisp leaves with no brown spots or edges. Wash drain and dry throughly before refrigeration. Refrigerate head and washed leaves, in a sealed bag for up to one week. • <u>Preparation and Serving</u> Preferred in a caesar salad.







### Butter Lettuce



### · Nutritional facts per 100g

Energy67kJ
Protein19
FatTrace
Carbohydrates2g
Dietary Fibre2g

### Handling

Temperature.......2-5° C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### • Green and Red Fancy Leaf Lettuce



### · Nutritional facts per 100g

Energy	67k
Protein	1g
Fat	Trac
Carbohydrates	29
Dietary Fibre	29

### Handling

Temperature.......2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### General Information

Butter lettuce has small, round and loosely formed heads and buttery with buttery soft leaves. The inner leaves are yellow green and the outer leaves are pale green. They are available all year round.

### Handling and Merchandising

Butter lettuce requires gentle handling. Keep refigerated.

### Selection and Storage

Leaves should be supple and firmly attached Wash drain and dry throughly before refrigeration. Refrigerate head and washed leaves, in a sealed bag for up to one week.

### General Information

Fancy leaf lettuce does not have a head. They are flavourful and crisp, but more perishable than head lettuces. Red leaf lettuce has a bronze to burgandy tint and a mild taste. Fancy lettuce is available all year round

### Handling and Merchandising

Cross merchandise with other salad ingredients. Lettuce is ethylene sensitive so do not merchandise with ethylene producers such as bananas

### Selection and Storage

Avoid leaves with brown slimy edges
Look for crisp leaves with no brown spots
or edges. Wash drain and dry throughly
before refrigeration. Refrigerate head and
washed leaves, in a sealed bag for up to
one week.

Preparation and Serving
 Use in combination with other salad greens

<u>Preparation and Serving</u>
 Use in combination with other salad greens



### Endive



### · Nutritional facts per 100g

Energy		 113kJ
Protein		 1g
Fat		 . Trace
Carbohydra	les	 2g
Dietary Fibr	8	 29
Vitamin A		 .260µg

### Handling

Temperature.....0°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### General Information

Endive is a salad plant with narrow, curly leaves. Broad leafed endives have broad bushy leaf heads with wavy leaves. Available year round.

### Handling and Merchandising

Endive is a excellent addition to salads. Promote the vegetable in a salad display with other vegetables such as cucumbers. Different types of tomatoes, lettuces and salad dressings.

### Selection and Storage

Choose green and crisp leaves that look fresh. Avoid leaves with brown spots and damaged leaves. Store the endive in a sealed container in the refrigerator after the damaged leaves have been removed.

### Swiss Chard (Spinach)



### General Information

Swiss chard or silver beet is often confused with spinach and is sold in South Africa as spinach. The stems, as well as the leaves are edible. Available year round.

### Handling and Merchandising

Discard yellow, Damaged and witted leaves. Remove and discard tough stems and midribs

### Selection and Storage

Choose crisp, fresh, undamaged leaves with creamy white stalks. Remove bruised stalks and damaged leaves. Store in a crisp or plastic bag in a refrigerator. Use as soon as possible.

### Preparation and Serving

Preparation and Serving

not alone.

Wash leaves and stalks in cold. salted water and drain well. Trim green leaves from stalks and stem. Shredded leaves can be used in salads.

### · Nutritional facts per 100g

Energy
Protein3g
Fat
Carbohydrates2g
Detary Fibre3g
Calcium 109mg
łron4mg
VItamin A342µg
Folate22ug

### Handling

Temperature.....2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.





### SPINACH



### · General Information

Spinach has dark green flat leaves with a thin green stem. It is usually sold as baby spinach. Spinach is an annual plant and can be eaten raw, in salads or lightly cooked. Both the leaves and shoots of this green vegetables are used. It is available all year round.

### · Handling and Merchandising

Highly sensitive to freezing injury. Discard yellow, damaged wilted leaves. Remove and discard tough stems and midribs.

### Selection and Storage

Select fresh, crisp dark green, glossy leaves that are not wilted, crushed or bruised. Leaves in bags should feel full and springy. Avoid dull discoloured or limp leaves. Keep moist and refrigerated

### · Preparation and Serving

Wash throughly. Fresh, young leaves can be served raw, in salads. Chop and blanch leaves then use as a side dish or in omelettes, lasagne, quiche and vegetarian dishes. Spinach is rich in vitamin A, folate acid and iron.

### · Nutritional facts per 100g

Energy	130kJ
Protein	3g
Fat	Trace
Carbohydrates	19
Dietary Fibre	39
Calcium	117mg
Iron	5mg
Vitamin A	468 µg
Vitamin C	25mg
Folate	52ug

### Handling

Temperature......2-5°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.



- leaf Lettuce
- Endive Swiss Chord \_
- (Spinach)
  English Spinach



### **TOMATOES**

### General Information

The tomato is a fruit vegetable and is available year round.

### · Handling and Merchandising

Consumers buy tomatoes based on firmness and appearance. Flavour and shelf life will determine repeat sales. Display tomatoes no more than one layer deep and place stem up to prevent bruising.

### Handling

Temperature.....3-17°C Relative Humidity.....85-88% Ethylene sensitive Highly sensitive to freezing injury Susceptible to chilling injury

### Nutrition Facts per 100g

Energy	.91kJ
Protein	.1g
Fat	Trace
Carbohydrates	3a

### Selection and Storage

Choose tomatoes that are smooth, firm and have a good colour. Make sure the tomato is heavy for it size. Tomatoes should be mature but not overripe. Puffy or watery fruit have a poor flavour. Store at 13-17°C to ripen store at 22-25°C. Refrigeration below 10°C will damage tomatoes and they will loose their flavour.

### Preparation and Serving

Tomatoes can be served raw in salads. Tomatoes can be cooked or pureed and served in stews and with pasta



Tomatoes

### ROMA/PLUM TOMATOES

### General Information

These tomatoes also called plum tomatoes are ideal cooking tomatoes. They adapt well to heat because of their thick, meaty walls and small seeds. Roma tomatoes are elongated with smooth red firm skin and are available year round.

### · Handling and Merchandising

Flavour and shelf life will determine repeat sales. Display tomatoes no more than one layer deep and place stem up to prevent bruising

### Selection and Storage

Choose tomatoes that are smooth, firm and have a deep colour. Ripe Roma tomatoes yield to slight pressure. Do not refrigerate. Store at room temperature.

### Preparation and Serving

To seed, slice off the top, hold upside down and squeeze over a bowl. Use in an uncooked tomato pasta sauce. They are also good on pizzas.

### Handling

Temperature......13-17°C Relative Humidity.....85-88% Ethylene sensitive Highly sensitive to freezing injury Susceptible to chilling injury

### • Nutrition Facts per 100g

Energy	90kJ
Protein	1g
Fat	Trace
Carbohydrates	5g
Dietary Fibre	10



Roma/Plum Tomatoes



Tomatoes Roma/Plum

- Cherry Tomatoes Mini Italian
- Sundried
- **Bell Pepper**
- Hot Pepper

### **CHERRY/MINI ITALIAN TOMATOES**



### General Information

Cherry tomatoes and mini italian tomatoes can be used in salads and as a garnish and are available year round. Cherry tomatoes are small, rounded shaped with a smooth red firm skin. Mini Italian tomatoes have oval shape, dark red colour and sweet taste. Available all year round.

### Nutritional facts per 100g

stuffed as appetiser.

Preparation and Serving
 Rinse well and remove stems.

Use in macaroni and vegetable

salads. These tomatoes can

also be cooked, sauteed or

### 

### • Handling

Temperature.......13-17°C
Relative Humidity...85-88%
Ethylene sensitive
Highly sensitive to freezing
injury.

### · Handling and Merchandising

Merchandising at room temperature.

### Selection and Storage

Choose tomatoes of a unifrom bright colour. with no split skins. It usually has an aroma. Do not refrigerate

SUNDRIED/DRIED TOMATOES



### General Information

Sundried tomatoes have lost moisture during the dehydration process and therefore reduced to leathery slices. available all year round.

### Handling and Merchandising

Merchandise at room temperature.

### Nutritional facts per 100g

Energy	1299kJ
Protein	14g
Fat	39
Carbohydrates	449
Dietary Fibre	139
Vitamin C	

### Selection and Storage

When buying sundried tomatoes, choose tomatoes with a bright colour that are flexible not brittle. Dried tomatoes will last in an airtight container for up to one year.

### Handling

Temperature......13-20°C Relative Humidity...<50%

can be used in soups, stews and casseroles. They can also easily be re-hydrated when placed in boiling water.

Preparation and Serving
 Diced sundried tomatoes are

excellent toppings for pizza and

AGROWEX



- · Tomatoes · Roma/Plum
- · Cherry Tomatoes
- Mini ItalianTomatoesSundried
- Tomatoes

  Bell Pepper
- Hot Pepper
- Brinjals

### **BELL PEPPERS**

### General Information

Bell Peppers are sweet peppers. They are chunky in shape, but nearly hollow inside. Red and yellow peppers are available, in addition to green peppers. Green peppers are square, bell shaped with a shiny green skin. Red and yellow peppers are bell shaped with shiny red and yellow skins. Available all year round

### · Handling and Merchandising

Do not stack more than two layers of peppers on top of each other.

### Handling

Temperature......7-10°C
Relative Humidity.....85-90%
Ethylene sensitive
Odour producer
Highly sensitive to freezing injury
Susceptible to chilling injury

### . Selection and Storage

Choose from vividly coloured peppers with smooth, shiny skins. Avoid peppers with soft spots. Refrigerate for up to one week at 12°C

### · Preparation and Serving

Wash peppers well, Cut in half and remove seeds. Bell peppers can be baked or grilled or used in stir fries. They can also be used fresh in salads or stuffed.



<ul> <li>Nutrition Facts</li> </ul>	per 100g
Energy	102kJ
Protien	1g
Fat	Trace
Carbohydrates	3g
Dietary fibre	2g
Vitamin C	77ma

Green Peppers



Yellow Peppers

<ul> <li>Nutrition Facts per 100g</li> </ul>
Energy132kJ
Protien1g
FatTrace
Carbohydrates 5g
Dietary fibre 1g
Vitamin C 184mg
Vitamin A 24µg



Red Peppers

Nutrition Facts per 100g
Energy132kJ
Protein1g
FatTrace
Carbohydrates 5g
Dietary fibre1g
Vitamin C 190mg
Vitamin A 570µg



- Cherry Tomatoes
   Mini Italian
- Tomatoes
   Sundried
- Bell Pepper
- · Hot Pepper
- · Brinjals

### **HOT PEPPERS (CHILLIES)**



Habanero



Thai

### **General Information**

Habanero, Thai, Serrano, Fresno and Jalapeno chillies are classified as hot peppers, because of the high Scoville units. Habanero's are the hottest being 1000 times hotter that the Jalapeno. Habaneros are green to orange red and shaped like a small lumpish square and the (heat scale is 10). Serrano chillies are also hotter than Jalapeno and are small and tapered. They are dark green or scarlet red when ripe and the (heat scale is 7). The Thai chillies are hotter than Serrano chillies and the heat does not diminish when cooked. They are thin. elongated and red when fully ripe (heat scale 8). The Fresno chillies are often mistaken for Jalapeno, but are broader at the top and hotter. Jalapeno chillies are the most common hot pepper. They are deep green and about 5cm long, (with a heat scale of 5-6).

### Handling and Merchandising

Combination packages of three to five different kinds of chillies in a lug can help to familiarise consumers with different heat levels and uses.

### Selection and Storage

Choose firm chillies with solid colours. Store fresh chillies at 3-7°C Stored dried chillies at room temperature. (12°C).

### Preparation and Serving

Chilli or hot peppers are used almost exclusively as a seasoning.

### Handling

Temperature.....3-7°C Relative Humidity...60-70% Dried Chillies......Room Temperature Ethylene sensitive

### Nutritional facts per 100g

Energy2	41kJ
Protein3	9
Fat 1	g
Carbohydrates5	9
Dietary Fibre7	g
Vitamin A2	
Vitamin C 1	



Jalapeno



**Dried Chillies** 



Serrnao



Fresno



Mini Italian

Roma/Plum Tomatoes

- Bell Pepper
- Hot Pepper
- Brinjals



### BRINJAL



### General Information

Medium to large satin skinned vegetable. Available in different shapes. Purple is the most common colour. Available year round.

### Handling and Merchandising

Brinjals cannot withstand heavy weight or pressure. Never stack more than two layers deep. Bruising is a common problem if produce is not handled carefully

### · Selection and Storage

Choose fruit that is heavy for its size. Select fruit with a firm skin that is shiny purple and uniformly coloured. Avoid fruit that is shrivelled and has scars.

### Preparation and Serving

The yellow cream flesh is mainly eaten cooked in ratatouille and moussaka

### ·Nutritional facts per 100g

	_
Energy	.123kJ
Protein	
Fat	Trace
Carbohydrates	4g
Dietary Fibre	30

### Handling

Temperature.....8-12°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

- Tomatoes Roma/Plum

- Tomatoes Mini Italian
- Tomatoes
- Bell Pepper
- Hot Pepper Brinjals

### TABLE CELERY



### · Nutritional facts per 100g

Energy.	.77kJ
Protein	
Fat	Trace
Carbohydrates	29
Dielary Flbre	

Handling

Temperature.......0-5°C
Relative Humidity...90-95%
Ethylene sensitive
Odour producer
Highly sensitive to freezing
injury.

### General Information

Table celery is available all year round. Leaves are midly pungent and used in soups, stews or as a garnish.

### · Handling and Merchandising

Do not display with odour producers such as carrots, onlons and pears. Celery will dehydrate it left uncovered. Only display in refrigerated unit

### Selection and Storage

Choose compact bunch or head of celery with clean, undamaged stalks or sticks that snap easily and are not too thick. The inside ribs should be clean and smooth. Wilted leaves could be a sign of exposure to high temperatures and low humidity. Leaves should be tresh, green and show no signs of witting. Dry or papery leaves could be a sign of freezing injury. Keep refrigerated in sealed bags.

### · Preparation and Serving

The leaves and dried seeds make flavourful seasonings. The outer ribs are best when cooked and the inner ribs or hearts can be eaten raw.

### **ASPARGUS**



### - Nutritional facts per 100g

Energy.	1235
Protein	3g
Fat	mont
Carbohydrates	29
Dietary Flore	32
Veamin C	

· Handling

Table Celery Green Asparagus White Asparagus

RhubarbWaterbloFennel

Temperature......2-5°C
Relative Humidity...90-95%
Ethylene sensitive
Highly sensitive to freezing
injury.

### · General Information

Asaragus is the young shoot of a green plant with feathery leaves. Available fresh from July to January/February.

### · Handling and Merchandising

Fresh asparagus deteriorates rapidly when medium to low temperatures are not maintained at room temperature, it quickly develops woody tissue and loses the sugar content that provides it characteristic flavour. Store at 5-10°C. Asparagus should not be steed for longer than 10 days.

### Selection and Storage

Choose straight spears of uniform thickness with compact pointed tips. Round plump spears are usually more tender than flat ones. Store in a plastic bag in the refrigerator.

Preparation and Serving
 Asparagus is usually eaten

cooked. Tie into a bundle and place upright in briskly boiling water. Serve with hollandaise sauce, salad dressing or butter and salt. Green asparagus should only boil for 10 minutes.



### WHITE ASPARAGUS



### · Nutritional facts g =

Energy	.123k
Protein	.3g
Fat	Trace
Carbohydrates	.2g
Dietary Fibre	.3g
	30mg

### · Handling

Temperature.......8-10°C Relative Humidity...90-95% Ethylene sensitive Highly sensitive to freezing injury.

### General Information

White asparagus has a stronger, more earthy taste. Available fresh from August to December.

### · Handling and Merchandising

Fresh asparagus deteriorates rapidly when medium to low temperatures are not maintained. At room temperature, it quickly develops woody tissue and loses the sugar content that provides it characteristic flavour.

### Selection and Storage

Choose straight spears of uniform thickness with compact pointed tips. Round plump spears are usually more tender than flat ones. Store in a plastic bag in the refrigerator.

### Preparation and Serving

Asparagus is usually eaten cooked. Tie into a bundle and place upright in briskly boiling water. Serve with hollandaise sauce, salad dressing or butter and salt. Green asparagus should only boil for 10 minutes.

### ARTICHOKES



### · Nutritional facts per 100g.

	-
Energy	208kJ
Protein	
Fat	
Carbohydrates	6g
Dietary Fibre	6g

### Handling

Temperature......2-5°C Relative Humidity...90-95% Non sensitive to Ethylene

### General Information

The artichoke is unopened, leafy flower head of a plant related to the thistle.

Available from October to November.

### Handling and Merchandising

Artichokes shrivel quickly when exposed to air. They should be wrapped tightly in plastic and refrigerated.

### Selection and Storage

Artichokes with soft green colour and tightly packed leaves are premium quality. Look for plump, compact, olive green heads, heavy for their size with full fleshy tightly closed leaves. Store unwashed, keep refrigerated or in a cool place.

 Preparation and Serving Hold the artichoke head in the one hand, snap off the stem and remove any tough fibres. Cut off the top third of the artichoke and any sharp ends. Remove any tough outer leaves. Simmer in boiling water (add a squeeze of lemon juice) for 20-30 minutes, or until an outer leaf pulls off easily. Very young artichokes will need less cooking time. Drain well, Toss in olive oil and lemon juice, balsamic vinegar or serve with butter and parmesan cheese. Cook in stainless steel or glass pots because aluminium will cause a metallic flavour and discolour the artichoke.



· Fennel



 Preparation and Serving The flowers are washed, trimmed

"Waterblommetjie bredie" or

popular in traditional

potjiekos recipes.

and cooked in soup or stews. Very

 Preparation and Serving Trim and wash stalks, drain well.



### · Nutritional facts per 100g

Energy	55kJ
Protein	19
Fat	Trace
Carbohydrates	1g
Dietary Fibre	2g

### Handling

Temperature......2-5°C Relative Humidity...95-100% Non sensitive to Ethylene.

### General Information

Rhubarb is a vegetable related to wild dock and sorrel, of which only the pinkish stems are eaten. Because Rhubarb is normally sweetened and eaten as dessert many people think of it as a fruit. Available all year, peaking in Autumn and Winter. The leaves must not be eaten as they contain oxalic acid.

### Handling and Merchandising

Rhubarb should be stored in a cool dry place with good air circulation. Display Rhubarb without the leaves

### · Selection and Storage

Choose firm, crisp yet tender and long stalks with a bright pink colour. Avoid flabby, wilted stalks. Store in a plastic bag in the refrigerator.

### WATERBLOMMETJIES

### General Information

This flower of the water lily family grows in ponds and dams. It is typical, indigenous South African vegetable. The plant consists of tubers, anchored in dam beds from where the stems grow to the water surface, bearing leaves and mature, edible flowers. Available during May to September.

### Handling and Merchandising

Merchandise in a refrigerated display unit

### Selection and Storage

Select firm, fresh buds and keep refrigerated.

### · Nutritional facts per 100g

Energy	.95kJ
Protein	19
Fat	Trace
Carbohydrates.,	2g
Dietary Fibre	

### Handling

Temperature.....2-5°C Relative Humidity...95-100% Sensitive to freezing injury.

### Table Celery

- Green Asparagus White Asparagus Artichokes

### **FENNEL (BULB)**



### General Information

A member of the parsley family, with a strong liquorice flavour. A bulbous leafstalk, fennel tastes like aniseed.

### Handling and Merchandising

Display in a refrigerated area. Fennel should be kept clean and not stacked more than two layers deep. Provide information on use and serving ideas.

### Selection and Storage

Choose well rounded bulbs that are clean, with white pale green colour. Refrigerate in a plastic bag.

### · Preparation and Serving

It can be braised whole and served with cheese sauce, or sliced and eaten raw in salads. Ideal with fish dishes.

### · Nutritional facts per 100g

Energy	.300k
Protein	19
Fat	
Carbohydrates	.79
Dietary Film	

### • Handling

Temperature.....2-5°C Relative Humidity...90-95%

- · Table Celery
- Green Asparagus White Asparagus Artichokes



### · General Information

It is classified as a fungus, which is a plant that contains no chorophyll and does not flower. The flavour of mushrooms, which is due to glutamic acid, is intensely savoury. Mushrooms lend themselves to most cooking methods and are available all year round.

### · Handling and Merchandising

Do not wash mushrooms before storage as they readily absorb water, Which hastens ageing. Do not stack mushrooms more than two layers, due to the fact that they bruise very easily. To present the best quality, replenish the display regularly.

### ·Selection and Storage

Mushrooms must be well shaped and have a fresh appearance. They should have a firm texture and be free of bruises and spots. Keep refrigerated.

### Preparation and Serving

Mushrooms are quite porous and should be cleaned delicately. Gently wipe with a damp cloth or soft or soft brush to remove dirt. Trim the stems if they have become dried. Mushrooms are versatile and can be used raw or cooked, in sautes or soups, stir fires, pastas or deep fried. Use as an appetizer or side dish. There is no waste to mushrooms, both caps and stems can be eaten. Mushrooms cook quickly. Over cooking toughens them.

### · Nutritional facts per 100g

Energy 133	ķ
Protein2g	
FatTrac	•
Carbohydrates3g	

### Handling

Temperature......0-5°C Relative Humidity...85-90% Sensitive to odour and water



·White Mushrooms

(Agaricaus Bisporus)
A pleasingly mile and woody
flavour that intensifies when
coeked



·Brown Mushrooms

(Crimi/mimbrown)
It has an earthier flavour than the fresh white mushroom



### · Oyster Mushroom

(Pleurotus)
Impart a delicate, mild mushroom
flavour when cooked. Texture
is equally delicate and velvety.



·Shiitake Mushroom

It is rich and woody and develops a meaty texture when cooked



### · Portabella Mushroom

(Portabello)
A long growing cycle results in a
deep, meaty flavour
and a substantial texture.



Green Asparagus White Asparagus

Artichokes

Rhubarb

Waterblommetijie

Fennel



### CAULIFLOWER



### Romanesco

Yellow green in colour, The Romanesco is a decorative cauliflower consisting of tightly packed small florets. It cooks quickly and has a mild taste. Available June to August.

### · Cauliflower



### · Nutritional facts per 100a

Energy	94kJ
Protein	29
Fat	Trace
Carbohydrates	29
Dietary Fibre:	29
Vitamin C	GRmg
Folate	Sim

### Handling

Temperature......0°C Relative Humidity...90-98% Ethylene sensitive Moderately sensitive to freezing injury.

### · Broccoli



### · Nutritional facts per 100g

Energy	118kJ
Protein	2g
Fat	Trace
Carbohydrates	29
Dietary Fibre	29
Vitamin C	25mg
Folate	600

### Handling

Temporature.......0°C
Relative Humidity...95-100%
Ethylene sensitive
Moderately sensitive to

### · General Information

Cauliflower is important for its anti-cancer properties. The vegetables are a good source of Vitamin C, even after cooking. Cauliflower is also recommended for vegetarians because of its vitamin and fibre content. Available all year round.

### · Handling and Merchandising

Cauliflower sells on looks and ivery white curds make the heads appealing to the eye Heads should be kept clean to enhance appeal. Typical shelf life: 2-3 days.

Cauliflower is ethylene sensitive and should be stored at 0°C

### Selection and Storage

The florets must be firm and white with no spots, speckles or discoloration. A granular texture is a sign of poor quality. Moisture inside packaging will cause brown spotting. Wrap heads in plastic and refrigerate. Use within a few days.

### · General Information

Commonly found are two types, The green or "heading" broccoli and the purple "hearting". They can be eaten raw but are best boiled or steamed and are available year round. More Vitamin C than Oranges. More calcium than milk and a cancer fighter

### · Handling and Merchandising

Place a maximum of two layers at 0-2°C, so cold air will prevent dehydration through evaporation. (Packaged broccoli should not be placed under misters).

### Selection and Storage

Leok for ministems and compact ouds. Open yellowing or wilted stems are not acceptable. Store 0-5°C. Broccoli is ethylene sensitive and should not be stored next to ethylene producers such as bananas.

AGROWEX

Preparation and Serving
 Whole or broken florets can be boiled or steamed. It can be eaten raw or used in stir fries.

• Preparation and Serving
Broccoll can be eaten raw in salads or as an appetiser. It can also be enjoyed in a stir fry, boiled addedir1 pasta or grilled and sprinkled with black pepper.





### CABBAGE

### Handling and Merchandising

Display with stem end down. Keep as long as 4 days, but crinkly types and Chinese cabbage should be used as soon as possible. Trim outer leaves before wrapping heads in plastic if necessary.

### Selection and Storage

Firm headed cabbage must be tightly formed with unblemished outer leaves. Wrap with cling wrap and store stem down, to prevent drying out. Store at 0°C

### Preparation and Serving

Core and shred.. Boil briskly, served semi crisp with butter or olive oil and vinegar. Cabbage can also be stir fried. Red cabbage will turn an unappetising blue purple if boiled. Best braised in red wine or vinegar or used in stir fry. Cabbage can also be eaten raw shredded in salads.

### · Nutritional facts per 100g

Energy	136
Protein	
Fat	Trace
Carbohydrales	49
Dietary fibre	
Vitamin C	

### · Handling

Temperature.......1°C
Relative Humidity...98-100%
Ethylene sensitive
Odour producer
Moderately sensitive to freezing injury



· Green Cabbage

Round head or the common cabbage. Firm headed, conical shaped cabbage. Available all year round. Eat raw or lightly cooked



· Red Cabbage

Deep purple finn headed cabbage



· Savoy Cabbage

Crinkly texture, soft, round head and mild flavour. Often used in recipes for stuffed cabbage leaves The wrinkly leaves make a decorative alternative to the green cabbage.



· Chinese Cabbage

Elongaled head and light green in colour. Crisp, delicate flavour.



· Bok/Pak Choy

(Chinese chard) has while stelks with full, green leaves. The stalks are crunchy, mild and juicy, while the leaves are tender and have a more cabbage like taste.



### **BRUSSEL SPROUTS**



### • Nutritional facts per 100g

Energy	150kJ
Protein	3g
Fat	Trace.
Carbohydrates	29
Dietary Fibre	.49
Vitamin C	

### Handling

Temperature..........0°C
Relative Humidity...95-100%
Ethylene sensitive
Moderatley sensitive to freezing
injury.

### · General Information

Brussel sprouts are miniature cabbage that grow clustered on stalks. Brussels sprouts are eaten raw or partially cooked. Available year round.

### · Handling and Merchandising

Keep refrigerated whilst on display. Yellowing and moisture losses occur rapidly when stored at room temperature. Display either bulk or pre packed.

### ·Selection and Storage

Select sprouts with small, bright green compact leaves. Soft, loose heads and wilted yellow leaves are a sign of ageing. Use within three to four days of purchase and keep refrigerated.

### · Preparation and Serving

Trim bases and remove the outer layer of the leaves. Boil for a few minutes until tender. Serve with butter marinade in salad dressings and serve cold.

### · KOHLRABI



### General Information

Although Kohlrabi forms part of cabbage family, it resembles a turnip. It has a swollen edible stem with sparse leaves and a mild sweet taste. Available all year round.

### · Handling and Merchandising

Merchandise in a refrigerated display unit.

### · Preparation and Serving

The thickened stem is eaten and has a delicate turnip like taste. It may be boiled or eaten raw, grated and added to salads. It is rich in Vitamin C, Potassium and calcium.

### · Nutritional facts per 100g

Energy	148kJ
Protein.,	
Fat.	
Carbohydrates	6g
Dietary Fibre	1g
Vitamin C	

### • Handling

Temperature.......1°C
Relative Humidity...98-100%
Ethylene sensitive
Moderately sensitive to freezing injury.

### · Selection and Storage

Select firm, light green or purple globes, about 25-75mm in diameter. Larger ones may be woody. The skin should be tender. refrigerate immediately and use within a few days.





Romanesc

· Broo

Bok/Pak ChoyChinese Cabbage

- Green Cabbage
- · Red Cabbage
- Savoy Cabbage
- Brussels sprouts

# Potatoes Vanderplank Mondial **Bpl** Lady Rosetta Inova Sweet Potatoes

### POTATOES

### General Information

Fresh Potatoes are available all year round in South Africa as they are grown and harvested in different regions during the different climatic seasons. Cultivars vary in skin colour, shape and flesh colour. The most important characteristic to the consumer is quality. Rich in carbohydrates, Vitamin C, Potassium, Phosphorous, Calcium, Magnesium and Fibre.

### Handling and Merchandising

Potatoes should be stored in a cool dry place. Temperature below 4.4C for an extended period of time will cause starch breakdown and the potato will become hard and glassy. Warmer temperatures will encourage sprouting and shrivelling. Potatoes are susceptible to chilling injury. Avoid prolonged exposure to light. Even slight exposure. will cause potatoes to turn green. A typical shelf life stored under optimum conditions: 10-12 days.

### Selection and Storage

Avoid wrinkled or wilted skins, cut or damaged surfaces, sprouts, soft dark areas or green appearance. Select potatoes with an oval shape. Store in a cool dry place to prevent greening and sprouting.

### Preparation and Serving

Potatoes can be prepared in a wide variety of ways. Boiled and served with seasoning or cold as a salad, mashed with black pepper and garlic, oven baked and served with toppings, grated cheese or sauce or oven roasted.



\*Up to Date

Round tubers with shallow eyes, White skin and creamy flesh.
Usage: Mash and oven bake. Soft cooking breaks easily during cooking.



Oval slightly flat tuber, shallow eyes. White skin and flesh.
 Usage: Boiled, reast and oven baked.
 All purpose. Firm but fight texture. Sometimes develops a slight blue discolouration after cooking.



Mondial

Creamy to yellow flesh, oval shape
Usage: Baking and roasting. Firm
and wa xy texture.



Vanderplank
 Oval to oblong, pear shaped tubers with shallow eyes. White skin and flesh. Usage: Chips, salads, oven baked. Firm smooth texture.

### • <u>Handling</u>

Temperature.......Below 20°C Relative Humidity...NA Odour producer Moderately sensitive to freezing injury. Susceptible sensitive to Chilling injury. Avoid prolonged exposure to light.



• Inova

Long oval shaped tubers with
shallow eyes. Yellow skin and flesh.
Usage: Excellent taste firm cooking,
not sticky; All purpose.



• Red potato

Round to oblong shape, red skin and yellow flesh.

Usage: Chips

### · Nutritional facts per 100g

Energy	354kJ
Proten	2g
Fat	Trace
Carbohydrates	17g
Dietary fibre	29
Vitamin C	21mg
Folate	3ug



### SWEET POTATOES

### General Information

It is a sweet, orange fleshed tuberous root. The root is irregular and oblong with light brown or reddish skin. The flesh is creamy to pale orange in colour. When fresh, it can be cooked similar to other potatoes.

### · Handling and Merchandising

A typical shelf life of 10-14 days, although sweet potatoes can be stored up to 52 days under optimum conditions. Sweet potatoes are ethylene sensitive and highly sensitive to freezing injury. Do not display next to produce that emit ethylene. Ethylene shortens shelf life.

### Selection and Storage

Avoid sweet potatoes with wrinkled or wilted skins, cut or damaged surfaces. Also avoid dark surfaces or sweet potatoes that are sprouted or with whitish streaks and spots. Select sweet potatoes with good colour and no discolouration or eyes.

### Preparation and Serving

Ideal with roasts or mashed. Use in cakes, souffles and stuffings. Boil until tender, add sugar and butter. can also be baked.



### • Red sweet Potato

Red skin elongated. Available year round.

Red sweet potato



White sweet potato

### White sweet Potato

Smaller variety with yellow flesh, also drier and less rich with a fluffier texture when cooked. Available April to November.

### Handling

### · Nutritional facts per 100g

Energy	44kJ
Protein	29
Fat	Trace
Carbohydrates	21 g
Dietary Fibre	3g
Calcium	28mg
Vitamin A	218µg
Vitamin C	25mg
Folate	23ug



Potatoes Rosetta Inova Sweet Potatoes

### **GINGER**



### General Information

Newly harvested ginger has a glossy, pale tan skin and greenish flesh. Mature ginger will have a tougher skin and whitish flesh. Available year round.

### Handling and Merchandising

Unpeeled ginger will keep in a refrigerator for two to three months.

### Selection and Storage

Select firm and plump roots. Peeled and wrapped ginger can be refrigerated for up to two weeks.

### · Preparation and Serving

Use for seasoning and in sauces glazes and fruit dishes. Can also be used in cakes, breads. ice cream and cold beverages.

### · Nutritional facts per 100g

Energy	.287kJ
Protein	
Fet	
Carbohydrates	12.79
Dietary Fibre	

### Handling

Temperature......13-16°C Relative Humidity...65-70%

### BEETROOT



### · Nutritional facts per 100g

Energy	216kJ
Protein	
Fat	Trace
Carbohydrates	8g
Dletary Fibra	3g

### Handling

Temperature.....0.2°C Relative Humidity...98-100% Somewhat sensitive to freezing injury.

### General Information

Beetroot has a sweet red flesh. This root vegetable is sold throughout the year. It can be boiled or baked and served hot, or cooled and pickled. It also a favourite in salads and soups. Available year round.

### Handling and Merchandising

Beetroot should be refrigerated and even sprinkled with water to keep it from drying out. Fresh beetroot can be displayed with their leaves attached to indicate its freshness. Wilted leaves should be removed.

### Selection and Storage

Look for firm smooth, globular beets, wilted tops are acceptable if roots are still firm. Avoid flabby or elongated roots with scaly areas or soft spots. Keep moist and refrigerated.

 Preparation and Serving Baked or boiled in skin. Young and tender beet can be peeled and glazed with sugar and lemon juice. Served hot or cold.

### Beetroot Carrots

- Turnips
- **Parsnips**

### **CARROTS**



### · Nutritional facts per 100g

Energy170kJ	
Protein1g	
Fal0g	
Carbohydrales5g	
Dietary Fibre3g	
Vitamin A 3250µg	Ç

### Handling

Temperature.......0-2°C
Relative Humidity...98-100%
Ethylene sensitive
Odour sensitive

### General Information

Carrots are available all year round but are most tender in winter and spring, when they are also sweeter. Fresh carrot juice is nutritious and delicious.

### · Handling and Merchandising

Mist lightly to avoid moisture loss. Typical shelf life: 14 days. Do not store carrots with ethylene producers, this will result in a bitter flavour. Do not store carrots with odour producers, because carrots will absorb odours

### Selection and Storage

Choose firm, straight bright orange carrots with no green or purple areas at the top. Keep refrigerated at 0-2°C. Keep moist when not packaged. Packaged carrots last longer. Carrots can be lightly frozen several times without sustaining serious damage.

### • Preparation and Serving

Carrots are rich in carotene and can be eaten raw (grated or chopped in salads). Use in stir fries or add to stews and soups.

### HORSE RADISH



### · Nutritional facts per 100g

Energy	
Protein	1g
Fat	Ггасе
Carbohydrates	20g
D etary Fibre	32g

### Handling

Temperature......0°C Relative Humidity...95-100%

### General Information

Pungent horseradish has many uses in cooking. It is one of the bitter herbs eaten at Passover. It is grown mainly for the root, although the young and tender leaves may be chopped finely and added to salads.

### Handling and Merchandising

Merchandise along side other root vegetables. The spinach like leaves should not be wilted and the tap root should have a fresh, earthy smell.

### Selection and Storage

Fresh roots should be stored in a damp dark place or they will turn green.

### • Preparation and Serving

A little horseradish in spreads and dressings gives a unique tang. Horseradish sauce is a traditional accompaniment with roast beef. Freshly grated apple with chopped mint may go into horseradish sauce. Add to cream cheese or cottage cheese and use as a spread or dip.





### **TURNIPS**



### General Information

A white flesh vegetable with a distinct taste, that goes well with braised beef or pork roast. Some varieties are bred for their leaves. which are richer in nutrients than the roots. Available all year.

 Preparation and Serving Wash and peel root and cut in pieces. May be boiled and then mashed or baked or used in stews or soups. Young turnip leaves can be used in salads or

can be cooked like spinach.

 Preparation and Serving Parsnips are often used to flavour

home made soups. Cook parsnip

wedges with roast beef but only

adding the vegetable in the last

hour of cooking.

### · Handling and Merchandising

Mist lightly to avoid moisture loss.

### · Nutritional facts per 100g

Energy	99kJ
Protein	1g
Fat	Trace
Carbohydrates	39
Dletary Fibre	29

### Handling

Temperature.....1-2°C Relative Humidity...98-100% Somewhat sensitive to freezing injury. Ethylene sensitive Odour producer

### · Selection and Storage

Available all year long, with peak from April to November. Select smooth, firm, small to medium sized turnips with new fibrous root ends. Tops should be fresh and green, if attached. Refrigerate turnips after tops have been removed.

### PARSNIPS



### General Information

Available only in winter. Strong nutty smell ivory coloured and starchy flesh. This vegetable resembles an over grown carrot but it is sweet, nutty and aromatic.

### Handling and Merchandising

Display parsnip either pre-packed or bulk. Ideally display small parsnip because larger ones could have a strong taste.

### Selection and Storage

Choose firm, smooth, small to medium sized roots. Avoid coarse, Flabby or shrivelled ones

Energy	365kJ
Protein	
Fat	
Carbohydrates	16g
Dietary Fibre	4g
Calcium	37mg
Enlate	5840

Beetroot

Radishes

Temperature.....1-2°C Relative Humidity...98-100% Somewhat sensitive to freezing injury. Ethylene sensitive Odour producer

### · Nutritional facts per 100g

Energy	365kJ
Protein	2g
Fat	Trace
Carbohydrates	16g
Dietary Fibre	49
Calcium	37mg
Folate	5800

### Handling



# RADISHES



# General Information

A root vegetable with a very peppery white flesh. Popular types are the red globe radish (round shape), the oval shaped radish and turnip shaped radish are available year round.

# Handling and Merchandising

Bunched radishes should be misted to prevent dehydration.

# Selection and Storage

Good quality radishes will be fresh, bright looking, smooth firm and crisp. Colouring should be characteristic of the variety. If tops are still attached, they should be fresh. Avoid radishes that have growth or air cracks, cuts, pithiness or yellowing. Keep covered in plastic bag in the vegetable crisper of the refrigerator.

#### · Preparation and Serving

Mostly raw in salads or sandwiches, or dips or stir fries.

#### · Nutritional facts per 100q

Energy	.90kJ
Protein	
Fat	1g
Carbohydrates	29
Dietary Fibre	29
Vitamin C	23mg
Folate	27uo

#### Handling

Temperature.....0°C Relative Humidity...95-100% Somewhat sensitive to freezing injury.



- Carrots Horseradish
- ParsnipsRadishes



# ONIONS

#### General Information

Brown onions are available year round. White onions: December to April. Red onions: are available year round

# · Handling and Merchandising

Although hardy, onions are easily damaged and bruised. Display in a well ventilated area, as moisture will cause mould growth to appear on bulbs.

# · Selection and Storage

Onions should be well dried with no foreign matter. There should be no signs of sprouting or regrowth. Store in a cool, dry place between 5-6°C. If stored under optimum conditions, onions will last for 30 days or more.

# · Preparation and Serving

Mostly cooked as rings, with or without batter, or chopped into food and cooked adding flavour. Also used raw in salads or sandwiches. Small onions are often pickled.

#### · Nutritional facts per 100g

Energy	192k
Protein	1g
Fat:	Trace
Carbohydrates	9g
Dietary fibre,	2g

#### Handling

Temperature.......14-18°C Relative Humidity...N/A Odour producer Moderately sensitive to freezing injury



·Brown Onions

Yellow flesh lasting flavour, best for slow cooking dishes such as stews and soups.



·Red onlons

Sweeter, best raw, thinly sliced in sandwiches and salads.



· White onions

Pearly, white fleshed onions that are crisp and sweet with a strong flavour. Used raw or cooked



Shallots

Red to brown small pointed onlons that taste mild, sweet with a taste of garlic. Use raw or cooked to subtly fiavour dishes.



Pickling onions

Small onlons, cooked whole, use in stuffing, potjies or sliced in rings for salads.



# **Spring Onions**



#### · Nutritional facts per 100g

Energy125kJ
Protein 1g
FatTrace
Carbohydrates 6g
Dietary Fibre1g

#### Handling

Temperature......5°C Relative Humidity...98-100%

#### General Information

Spring onions are sometimes also called scallions. They are very young onions, harvested while there shoots are still green and the bulbs have not yet swollen. Red and white spring onions are available. The difference is in the colour of the swollen end and not in the green leaves. Red spring onions are much stronger than the white and are not as common as the white. Salad onions are spring onions harvested at a very early stage. Available all year.

# · Handling and Merchandising

Spring onions are soft and are easily damaged. They need to be kept refrigerated and moist, usually bunched together and protect by plastic sleeve. Display with salad items in a refrigerator.

# ·Selection and Storage

Select spring onions that are free from slime, browning and rust. Damaged spring onions exude a clear gel from leaves, this should not be mistaken for slime. The roots of the spring onion should be removed, but if they are still attached, they should be clean and white. Under high humidity and temperature below 5°C they can be stored in bunches for up to one week.

# Salad Onions



Salad onion



Leeks

# General Information

The white shaft of the leek is used, but the green fan leaves are not of any culinary value. A good quality leek therefore has a long white shaft. Available year round.

#### Handling and Merchandising

Leeks need to be kept refrigerated and moist, usually bunched together with leaves or prepacked without leaves. Display with salad items in a refrigerator.

# Selection and Storage

Select leeks that are free from slime, browning or rust. Sand and dirt collects in between the concentric rings at the top of the white shaft. This should be removed in the washing process. The roots of the leek should be clean and white. Under high humidity and temperatures below 5°C, they can be stored in bunches for up to a week.

#### • Preparation and Serving

• <u>Preparation and Serving</u>
They have a mild delicate taste

and both the bulb and the green

tops can be used in salads or

almost any dish that requires a

add them just before the end of

mild onion flavour, it is best to

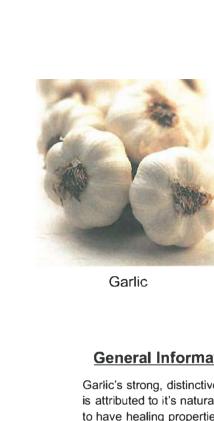
cooking.

They have a mild delicate flavour that is milder and sweeter than of onions. The white shaft is used to add a subtle touch to various dishes without masking other flavours. Wash leeks thoroughly to rid them of sand trapped between the leaves.





# Garlic





Giant Garlic

# **General Information**

Garlic's strong, distinctive odour and taste is attributed to it's natural oils and is believed to have healing properties as well as preventing diseases. Pinkish coloured garlic is specific cultivar that is grown in the Free State and some areas of th Cape. Giant garlic is a bigger sized garlic with less pungency than regular garlic. Available year round

#### Handling and Merchandising

Display the garlic either pre packed or bulk. The display area should be cool and dry. Rotate the garlic in bulk displays to ensure the garlic at the bottom wont dry out.

#### Selection and Storage

Look for firm and shiny bulbs with a thin, white and not purplish skin. Avoid dark patches, soft spots, which usually indicate mould. Necks should be tightly closed with no sprout emerging. Outer skins should be papery and could be loose.

# Preparation and Serving

Garlic is used to add flavour to almost any dish when added crushed or as whole peeled cloves. Giant garlic has a less pungent taste than standard garlic. Garlic could also be cooked whole and eaten as a starter.

#### · Nutritional facts per 100g

Energy	750kJ
Protein	1g
Fat	Trace
Carbohydrates	3g
Dietary Fibro	Trace

#### • Handling

Temperature.....5-16°C Relative Humidity...N/A





#### **SQUASHES AND PUMPKINS**

#### General Information

The best known pumpkin is South Africa is the white pumpkin. Available year round. Winter squashes: slow growing and larger, have hard skins. These squashes should be mature before they are harvested. Examples are hubbard squash and butternuts.

# Handling and Merchandising

Do not pack bins too full. The first row of pumpkins should be placed stems down, the second layer should be placed stems up on top of the first, in order to prevent bruising and scarring. Pumpkins are very ethylene sensitive. Do not display next to products that emit ethylene.

# Selection and Storage

Avoid pumpkins with soft rot or wet breakdown. Avoid pumpkins with excessive scaring and whitish blemishes. Keep pumpkins dry and provide space for circulation. Pumpkins should be stored in stored in a cool place until ready to use.

# Preparation and Serving

Use in soups, casseroles, pies and as a vegetable bake, mashed or dry roasted.



• White Pumpkins
Cream flat pumpkin with yellow flesh.
• Nutritional facts per 100g

Energy	92kJ
Protein	1g
Fat	Trace
Carbohydrates	3g
Dietary fibre	2g
Vitamin A.	213µg



· Blue Pumpkins

Blue flat pumpkin with bright orange flesh

# · Nutritional facts per 100g

Energy	92kJ
Protein	1g
Fat	Trace
Carbohydrates	3g
Dietary fibre	2g
Vitamin A	213.00



Temperature.......10-13°C
Relative Humidity...70-75%
Ethylene sensitive
Moderately sensitive to freezing injury
Susceptible to chilling injury.



Butternut

Pear shaped cream pumpkin with orange flesh

#### · Nutritional facts per 100g

Energy.	235kJ
Protein	2g
Fat	Тгасв
Carbohydrates	10g
Dietary fibre.	2g
Vitamin A.	332µq



Gem Squash

Green round pumpkin with yellow flesh.

#### · Nutritional facts per 100g

Energy	235kJ
Protein	. 2g
Fat	.Trace
Carbohydrates	.10g
Dietary fibre	.29
Vitamin A	. 332ua



· Rubbard Squashes

Green round pumpkin which narrows to the stem

#### · Nutritional facts per 100g

Energy	.135kJ
Protein	. 1g
Fat	Trace
Carbohydrates	<b>6</b> g
Dietary fibre	2g
Vitamin A.	401 µc





# BABY MARROW (ZUCCHINI COURGETTE)



Baby Marrow



Baby Gem

#### General Information

Also known as Zucchini. With its mild taste, the baby is extremely versatile and is available all year. The baby gem is young, immature gem and should be handled similar to the baby marrow.

# · Handling and Merchandising

Do not stack punnets with baby marrow too high as the flesh bruises easily. Bulk selling baby marrows should not be stacked too high for the same reason. Optimum storage temperatures is 7-10°C.

# Selection and Storage

The best baby marrows are the small and tender ones. Select smooth, unblemished, deep green or light green skins with faint stripes or specks of yellow. Avoid withered ends. Store in plastic bag in the refrigerator.

#### • Preparation and Serving

Use in soups, casseroles and pies and as a vegetable bake, mashed or dry roasted.

#### · Nutritional facts per 100g

Energy
Protein2g
FatTrace
Carbohydrates 1g
Dietary Fibre2g

• <u>Preparation and Serving</u>
Pattypans are cooked whole. They

are best when steamed, sauteed

in butter or in stir fries. Served with

parmesan cheese, salt and pepper.

#### PATTYPANS



Yellow pattypans



Green pattypans

Pumpkins Baby marrows

Pattypans

# General Information

Pattypans are petite and sometimes called scalloped squash. Colours vary from yellow to bright green and pale green. Available all year. Quick growing, tender skinned. They are harvested immature and should be eaten while they are small and tender before seeds ripen or rinds harden.

# Handling and Merchandising

Do not stack punnets with pattypans too high as the flesh bruises easily. Bulk selling pattypans should not be stacked too high for the same reason. Optimum storage temperatures is 7-10°C.

#### Selection and Storage

Select small pattypans without blemishes, with clearly defined scallops. Choose pattypans with even sizes for even cooking. Store in a plastic bag on the refrigerator.

# •Nutritio<u>na</u>i fa<u>ct</u>s <u>pe</u>r 100g

Energy	81kJ
Protein	1g
Fal	Trace
Carbohydrales	2g
Dietary Fibro	2g



#### **ENGLISH CUCMBER/SWEET SLICE/ISRAELI CUCUMBER**

#### • General Information

Available all year round. The sweet slice cucumber is a short and sweet cucumber. The Israeli cucumber refers to a specific gherkin type cultivar that is consumed fresh. It is crisp and has a sweet taste.

#### · Handling and Merchandising

Chilling injury will cause water soaked spots, pitting or tissue collapse. Cucumbers need a cool environment to maintain freshness. While refrigeration is not needed, do not over chill or freeze as they will become mushy.

#### • Selection and Storage

Choose cucumbers that are well shaped, firm and have a deep green colour. Any yellow colour indicates over maturity. Avoid any exceptionally large cucmbers or those appearing puffy, shrivelled or wilted.

#### • Preparation and Serving

Cucumbers are usually available fresh or pickled and are eaten raw in salads. Can also be pulped and served in soups.



Israeli Cucumber



Temperature.......7-12°C
Relative Humidity......95-100%
Sensitive to freezing injury

#### · Nutritional facts per 100g

Energy	.61kJ
Protein	19
Fat	Trace
Carbohydrates	.2g
Dietary Fibre	10



Sweet Sliced Cucumber



English Cucumber





# · GARDEN PEAS



Garden Peas

# General Information

Also called the green pea, it is the fresh seed of the green pea pod. It has a large pod that bulges away from the pea inside. Available year round.

# · Handling and Merchandising

Display either in bulk or prepacked form. Peas may shrivel or wilt if stored in an area with low humidity. Storing peas at high temperatures may cause a decrease in the sugar content and a loss of flavour. Shelled peas are more perishable than peas in the pod.

# Selection and Storage

Good quality is indicated by the colour and condition of the pod. The pods should be full, bright green, velvety to the touch and fresh in appearance.

#### · Preparation and Serving

Remove seeds from the pod and boil for ten minutes. Season and serve with butter or olive oil.

#### Handling

Temperature.......0°C
Relative Humidity...85-90%
Moderately sensitive to freezing injury.
Ethylene sensitive

#### ·Nutritional facts per 100g

Energy	371kJ
Protein	6g
Fat	1g
Carbohydrates	89
Dietary Fibre	6g
Vitamin C	27mg
Folale	82ug

# SUGAR SNAPS/MANGE TOUT



Sugar Snaps



Mange Tout

#### General Information

Sugar Snaps are young crunchy peas with edible pods. Mange Tout are young tender flat peas with edible pods, also called Snow Peas. The seeds inside are tender and sweet. Mange Tout refers to "eat all" because both the pod and the peas can be eaten. Available year round.

# · Handling and Merchandising

Display either in bulk or prepacked form. Peas may shrivel or wilt if stored in an area with low humidity. Storing peas at high temperatures may cause a decrease in the sugar content and loss of flavour.

# Selection and Storage

Display in a refrigerated display unit, near other stir fry vegetables. Good quality is indicated by the colour and condition of the pod. The pods should be fully bright green, velvety to the touch and fresh in appearance.

# Preparation and Serving Sugar Snap and Mange Tout

peas are excellent raw and cooked. They make an interesting addition to salads and stir-fries. They could also be served as a healthy snack with a dip.

#### Handling

Temperature.......0°C
Relative Humidity...95%
Moderately sensitive to freezing injury.
Ethylene sensitive

# · Nutritional facts per 100g

238kJ
. 2g
Trace
.9g
.3g
.48µg
. 77mg
. 25ug



Sugar snaps/

Mange Tout



#### GREEN MEALIES



Green Mealies

#### Handling

Temperature......1-3°C Relative Humidity...85-90% Odour-sensitive

#### · Nutritional facts per 100g

Energy	.504kJ
Protein	
Fat	1g
Carbohydrates	21g
Dietary Fibre	.3g
Celeto	A 4

#### 010011 111001100

# General Information

Green mealies have cream coloured, plump kernels. The variety used for fresh green mealies is different to that used to produce maize meal marketed in South Africa is yellow and contains Vitamin A and Potassium. Yellow varieties have more Vitamin A than the white varieties and are more popular as well. Available year round.

# · Handling and Merchandising

Display either in bulk or prepacked form. If bulk displayed, show some with kernel visible to discourage consumers from stripping back husks. Keep the display area clean from corn silk and husks. Handle corn carefully. Keep display refrigerated and make sure there is good air circulation.

#### Selection and Storage

Choose fresh, well coloured green husks, that are tightly wrapped. Select cobs with no indent kernels. Silk ends may be dry but free of decay or worm damage. Do not store corn but use as soon as possible after purchase.

# SWEETCORN



Sweetcorn



Mini Corn

#### General Information

The term sweetcorn refers to particular variety of maize namely saccharata. It was developed for use as a fresh vegetable. As name indicates it has a sweeter taste than common type. Mini corn can be used in salads, crudites or stir-fries. They are sweet and can be eaten raw. Available year round.

#### Handling and Merchandising

Display either in bulk or prepacked form. If bulk displayed, show some with kernel visible to discourage consumers from stripping back husks. Keep the display area clean from corn silk and husks. Handle corn carefully. Keep display refrigerated and make sure there is good air circulation.

#### Selection and Storage

Choose fresh well coloured green husks, Cobs should be bright yellow with no indent kernels. Silk ends may be dry but free of decay or worm damage. The husk must be tightly wrapped. Do not store sweetcorn but use as soon as possible after purchase.

# Preparation and Serving

Preparation and Serving
 Remove the husk and silk just

rapidly boiling water. Green

in the microwave. Enjoy

margarine or butter.

before cooking. Add the corn to

mealies require a longer cooking

mealies can be boiled or cooked

period than sweet corn. Green

immediately after cooking with

Remove the husk and silk just before cooking. Add the corn to rapidly boiling water. Green mealies require a longer cooking period than sweet corn. Green mealies can be boiled or cooked in the microwave. Enjoy immediately after cooking with margarine or butter.

#### Handling

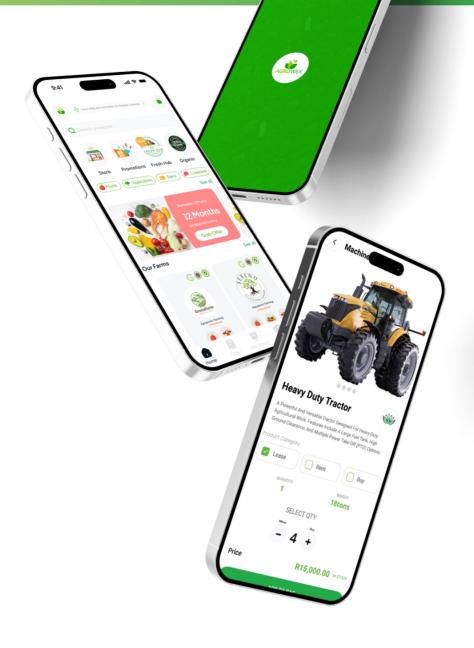
Temperature......1-3°C Relative Humidity...85-90% Odour-sensitive

# •Nutritional facts per 100g

Energy	531k
Protein	3g
at	1g
Carbohydrates	22g
Oletary Fibre	3g
olate	4600









**DOWNLOAD AGROWEX** APP NOW ON & SIGN UP



WWW.AGROWEX-HUB.COM

















Okra

#### · Nutritional facts per 100g

Energy	162k
Protein	2g
Fat	Trace
Carbohydrates	5 <b>g</b>
Dietary Fibre	3g
Calcum,	6 <mark>3</mark> mg
Vitamin A	38µg
Vitamin C	16mg
Folale	46ug

# General Information

Also called Ladies Fingers. The vegetable has a sticky consistency when cooked and is therefore useful as thickener for soups and stews. Available December to April.

# · Handling and Merchandising

Display bulk or prepacked. Display area should be refrigerated. Promote the vegetable by providing information on its uses and origin.

# Selection and Storage

Only buy in amounts permitting one day turn over because Okra is highly perishable. Choose bright coloured tender pods 50-100mm long that bend easily. Avoid fibrous or discoloured pods.

#### · Preparation and Serving

Eaten fresh, cooked, stir-fried, canned or dried. It is used to thickens soups and stews and also is a vegetable.

#### • Handling

Temperature........6-7°C
Relative Humidity...85-95%
Ethylene sensitive
Susceptible to chilling injury
Highly sensitive to freezing injury
Okra needs careful handling, it
deteriorates and bruises quite
easily.

# LUFFER



Angled Luffer



Smooth Luffer

# General Information

Also called Chinese Okra. Available all year round. Luffers can only be eaten when young. The mature luffer becomes very bitter due to the development of strong compounds. The texture and flavour of the young luffer is very similar to that of baby marrow.

# · Handling and Merchandising

Display bulk or prepacked. Promote the vegetable by providing information on its uses and origin.

# Selection and Storage

Only buy in amounts permitting one day turn over as Luffer id highly Perishable.

#### • Preparation and Serving

This vegetable is prepared and cooked much the same as a baby marrow. When very young they can be used unpeeled, but as they get older the peel becomes bitter and has to be removed. This vegetable is ideal for stir frying, steaming, sniffing and braising.

#### • Handling

Temperature........15-20°C
Relative Humidity...85 95%
Ethylene sensitive
Susceptible to chilling injury
Highly sensitive to freezing injury
Luffer needs careful handling, it
deteriorates and bruises quite
easily.

#### · Nutritional facts per 100g

Energy	162kJ
Protein	2g
Fat	Trace
Carbohydrates	5g
Dietary Fibre	3g
Calcium	63mg
Vitamin A	58µg
Vitamin C	., 16mg
Folate	4Gun





Luffer

· Calabash

Karella

Drumsticks

Jackfruit<sup>au</sup>

# · CALABASH



Calabash

# General Information

Also called Bottle Gourd. Available all year round. Calabash is a popular vegetable amongst the Chinese and Indian communities. They are considered to have a good flavour and are used in much the same way as baby marrow. The skin is usually peeled before use and the hard seeds should be removed before cooking.

# · Handling and Merchandising

Display bulk or prepacked. Promote the vegetable by providing information on its uses and origin.

# Selection and Storage

Can be stored for three to five days.

# • Preparation and Serving

This vegetable is prepared and cooked much the same as baby marrow. They can be used in soups, stir fries, steamed or stuffed. The subtle flavour of this vegetables is enhanced when cooked with garlic, ginger or chillies.

#### Handling

Temperature........15-20°C
Relative Humidity...85-95%
Ethylene sensitive
Susceptible to chilling injury
Highly sensitive to freezing injury

# KARELLA



Karella

# General Information

Also bitter Gourd, Balsam Pear, Alligator Pear. Available year round. Until recently, this strange looking vegetable of tropical origins was unknown in the western world. It has however been an ingredient in Eastern and Asian cooking for many centuries. The immature fruits are characterized by a strong bitter flavour, due to the presence of quinine. While it is mainly the fruit that is used, all parts of the plant are said to be highly nutritious.

#### · Handling and Merchandising

Display bulk or prepacked. Promote the vegetable by providing information on its use and origin.

#### Selection and Storage

Only put in amounts permitting one day turn over as Karella is high perishable.

#### · Preparation and Serving

Karella appears to bring out the flavour of their ingredients during cooking, and it is in turn neutralized by them. The young fruit is usually cooked unpeeled, although the rougher parts of the outer skin can be scraped off. Expect in very young fruit, the seeds and pips

should be removed. To remove

the bitterness, the vegetables can be blanched or salted before cooking (As is often done with brinjal). Cut the fruit in half, remove

the seeds and par boil for a few minutes. Alternatively, cut the fruit into slices, sprinkle with salt and leave for 10 minutes. Squeeze out the juice and rinse thoroughly. There is a variety of different ways in which Karella can be cooked. It can be steamed and stuffed with meat or fish fillings. It can be added to stir-fries, curries and stews. It can also be pickled and made into chutneys.

#### • Handling

Temperature.......15-20°C
Relative Humidity...85-95%
Ethylene sensitive
Susceptible to chilling injury
Highly sensitive to freezing injury



Calabash
 Karella

Drumsticks

Jackfruit



#### DRUMSTICKS



**Drumsticks** 

#### General Information

A long, bean like Asian vegetable with a hard deep green skin, slightly ridged. Its flavour is subtle.

# Handling and Merchandising

Display bulk or prepacked. Promote the vegetable by providing information on its uses and origins.

# · Selection and Storage

Choose drumsticks with deep, green unmarked skin and a firm feel. It can be kept for up to two weeks in vegetable compartment of a refrigerator.

#### Preparation and Serving

Cut into equal lengths, trimming the ends, ties in bunches in the same way as asparagus and simmer gently until tender. Drain and serve with sauce or butter, or add to curries.

#### · Handling

Temperature......8-10°C
Relative Humidity...85-95%
Ethylene sensitive
Susceptible to chilling injury
Highly sensitive to freezing injury

# JACKFRUIT



Jackfruit

# · General Information

Also called Kathal, Khanun, Nangka. A very large, oblong fruit weighing approximately 4kg, with a round skin containing soft, white, juicy flesh with 100-500 white large seeds, covered with a rubbery latex layer.

# Handling and Merchandising

Display bilk alongside other Asian Vegetables. Promote the vegetables by providing information on its uses and origins.

#### Selection and Storage

Select Jackfruit with undamaged, green to brown skin. Store in a cool dry place.

#### · Preparation and Serving

Cut fruit in half with an oil knife to prevent the latex layer sticking to it. Remove the flesh pouches, which surround the seeds. Store the flesh in a covered container in the refrigerator until required. The soft ripe flesh may be eaten with seafood, fruit salad, in ice cream or juiced. The crunchy, raw flesh could be used in curries, boiled or deep fried as chips. The seeds may be boiled, roasted and used like chestnuts or sliced and used in dessert and sweet drinks.

#### Handling

Temperature.......8-10°C
Relative Humidity...85-95%
Ethylene sensitive
Susceptible to chilling injury
Highly sensitive to freezing injury





Calabasi

Karella

Drumsticks
 Jackfruit





# Herbs



#### GENERAL INFORMATION

Herbs usually refer to small, seed bearing plant with aromatic fleshy, rather than woody parts. In addition to herbaceous perennials, herbs include trees, shrubs, annuals, vines and more primitive plants, such as ferns, mosses, algae, lichens and fungi.

Herbs make all the difference to food adding colour as well as flavour, the cuisine of a region is characterized as much by the herbs that is used as by the staple foods. Both the leaves and the seeds are used in some plants, such as fennel, dill and coriander. Salad herbs, or pot herbs are commonly added to salads, but can also be used in soups and stews. They include watercress, sorrel, dandelion, rocky and chicory. The freshest possible herbs are to be used since essential oils (The main aromatic component) evaporate readily. Herbs are to be added towards the end of cooking to give the best flavour and retain a fresh green colour. Garlic, spices and tougher herbs, such bay leaves, can be added at the beginning to give a subtle flavour to garnishes, dressings and marinades. Pot herbs, such as dandelions and rocket, or sorrel can be added to green salads, for their piquant flavour. Many of these also contain valuable vitamins.

#### Harvest and Secletion

Most herbs for fresh culinary use are best if harvested before flowering. Herbs should appear fresh and green, with no yellowing, decay, insect damage or mechanical damage. Leaves should be uniform in size. Flavour and aroma should be strong and characteristic of the herb. As culinary herbs are so diverse, and are of temperate or tropical origin, their handling requirements are also diverse.

#### Post Harvest Handling

All the post harvesting principles that apply to leafy green vegetables apply to the handling of fresh herbs. Herbs respond favorably with very high humidity (95%). Some herbs can be held successfully in water. (Basil, Mint, Tarragon), Whereas water loss in most can be controlled by packaging and maintaining high humidity in the

environment. Lowering the holding temperature to the recommended levels also greatly reduces water loss.

#### Packaging and Storage Life

Herbs can be packaged in bags designed to minimize water loss. When herbs are packaged this way, it is particularly important to maintain constant temperatures to reduce condensation inside the bag and the consequent risk of fungal or bacterial growth. The bags may be partially ventilated with perforations, or may be constructed of a polymer that allows for the exchange of gases.

Careful handling to avoid physical injury to the leafy tissue of the fresh herbs is also important. Rigid clear plastic containers such as those sometimes used for sprouts may be used for soft herbs. "Pillow packs" (plastic bags which are partially inflated when sealed) may be an alternative packaging technique. Careless handling results in tissue discolouration, as well as increasing sites for pathogen attack. Growth of Micro organisms can also be reduced by proper temperature management and good hygienic practices in the field and packing station

#### Ethylene

Ethylene gas is another factor which limits shelf life of leafy tissues. Ethylene causes yellowing of leaves, and increased rate of deterioration, especially if held at 10° Holding the herbs at the recommended temperatures greatly reduces their ability to respond to ethylene in the environment. Ethylene production in herbs is low and whilst herbs such as Rosemary and Sage are found to be insensitive to ethylene, the sensitivity of most other herbs is high.

#### Post Harvest Pathology

Moulds and bacterial decay may develop, especially on mechanically damaged leaves or cut ends of stems. It is important that low temperatures be maintained during storage and distribution to slow the rate of decay.

- Basil
- Bay leaves
- Corian
- Eennel
- · Lemongrass
- Marjoram
- Origanum
- MintParsley
- Italian Parsley
- · Sag
  - Tarragen
- Watercress
- Rosemary



# **HERBS** General Information

Herbs have been gathered and cultivated since ancient times and not only for the kitchen. Though medicinal and magical functions have receded, herbs have grown in their role of improving the taste of food and beverages. The flavour of herbs is derived from the volatile oils which are generally more intense when the herb is used fresh.

#### Handling and Merchandising

Herbs are readily available in bunches, prepacks or pots. Dried herbs are also a good option. However, they tend to be stronger and more pungent than fresh variety, and should be measured accordingly to maintain balance when cooking.

#### Selection and Storage

Herbs are available all year round and are available dried or fresh. Select crisp bunches of fresh herbs with healthy green leaves. Stems and leaves should not be wilted, bruised or broken. Sprigs of fresh herbs, or freshly chopped herbs wrapped in foil or plastic wrap can be kept in refrigerator for nearly a week. Herbs can also be dried in order to preserve them. The faster the drying process, the more the herb will retain its flavour.

#### • Preparation and Serving

Soft, leafy herbs should be added late in the cooking process, about 10 -15 minutes before the dish is complete. Woody varieties, such as Rosemary or Thyme can withstand longer cooking periods. The flowers of most herbs are delightful and normally have a slightly more delicate taste than the herbs itself. They can be added to salads or just used as a garnish.

#### Handling

Temperature

Oreganum.....8.9-10°C Basil.....10-12.8°C Other herbs...... 3.3-5.8°C

Refrigerate herbs on arrival.

Fennel stalks do not store well(Only 3 to 4 days). For optimum shelf life cut the stalks from the bases and wrap separately in plastic and keep in coldest part of refrigerator.

#### BASIL



#### Basil

#### General Information

Sweet basil has a delicious flavour and aroma and is a very versatile herb. The large fleshy leaves are particularly popular in Italian dishes, such as pesto. It is especially renowned for it's affinity with tomatoes and is also excellent with marrows, brinjal and spinach. To preserve the purple/green colour do not cut but rather tear by hand.

#### Preparation and Serving

The chopped leaves, added towards the end of cooking time, give a wonderful flavour to any soup. It is a favourite in pasta dishes and salads.





- Bay leaves
- Coriander

- Origanum
- Parsley

- Tarragon Thyme

#### **BAY LEAVES**



# General Information

The most wildly used of the dried herbs is the bay leaf. Bay leaves are one of the main ingredients in the bouquet garni, used in soups stews and making of stock.

# Preparation and Serving

Bay leaves on their own flavour soups and casseroles, fish, poultry and even puddings.

# **CORIANDER**



#### General Information

The lacy, feathery foliage of this herb has a fresh and distinctive flavour and aroma. Coriander is also known as Chinese parsley, Dhania or Cilantro.

# Preparation and Serving

Add(Sparingly) to poultry, lamb and vegetable dishes, especially curries. Seeds are often used to flavour oils and vinegars.

#### DILL



# · General Information

Light green, feathery leaves and yellowish flowers. Used with fish and egg dishes or finely chopped in salads. The light, clean spicy scent is pleasing to most people

#### Preparation and Serving

Dill may be used to replace parsley, mint or basil. Delicious when combined with roast meats, lamb, veal or chicken. Dill soup is very tasty and the finely chopped leaves enhance omelettes and salads.





Watercress

# **FENNEL**



#### General Information

Traditionally served with fish, Finely chopped and scattered over salads. Like Dill, fennel seeds are good for digestion. Has a distinctive flavour.

# Preparation and Serving

The swollen base of fennel is a delicacy and can be cut into rounds and tossed in oil and balsamic vinegar dressing with black pepper. This is an excellent accompaniment to any pasta.

# **LEMONGRASS**



#### General Information

Lemon grass is a member of the grass family. It has bulbous base with several yellow green stalks growing from the bulb. An oil called citral, also found in the skin of lemons, is found in lemon grass.

# Preparation and Serving

Lemon grass is perhaps best known for the fragrant flavour that it imparts to teas and drinks. Because of the toughness of Lemon Grass, large pieces should be removed before serving. The outer sheaths should be peeled and stalk bruised slightly to release the flavours. Young tender stalks can be chopped finely and added to a dish, without having to be removed at the end of the cooking process. The delicate flavour of Lemon Grass is complimented by use with more subtle herbs such as parsley, mint, tarragon, sage and bergamot.

#### **MARJORAM**



#### General Information

Marjoram and oreganum are closely related. There are slight differences in their appearance and each has distinctive flavour. Marjoram is a compact, upright plant with soft grey green leaves.

# Preparation and Serving

It is a useful herb for many dishes where a subtle flavour is desired. It also has great value on its own. Try fresh chopped leaves in dumplings, scones or scattered over salads. Widely used ion Italian dishes.





Tarragon Thyme Watercress Rosemary

#### **OREGANUM**



# General Information

Oreganum, sometimes referred to as wild marjoram, grows bigger than marjoram. The green leaves are much firmer than marjoram.

# Preparation and Serving

Used in tasty regional dishes of many countries. It is ideal for pastas, rice dishes and especially pizzas. Try scattering some dried oreganum on lamb or pork next time you are roasting. Basil or parsley can replace oreganum.

# MINT



#### General Information

A wide selection of mint varieties, with unique scents and flavours is available. Spearmint is usually used in mint sauces.

# Preparation and Serving

Chopped mint is ideal for hot buttered potatoes, green peas. and tomatoes. Sprinkle finely chopped fresh mint on chilled or hot green pea soup or avocado soup. Banana/ Apple rings rolled in chopped mint and fried or baked in butter make a delectable accompaniment to any meat dish.

#### **PARSLEY**



#### General Information

Parsley leaves, whether fresh or dried, can be added to sauces, pastas, scrambled eggs, omelettes, mashed potatoes, etc. Freshly picked flat leaf parsley has a finer flavour than the curly variety.

#### Preparation and Serving

Curled parsley washed, dried and fried quickly in butter until crisp, is a traditional accompaniment to fried or grilled fish.





Sage

TarragonThymeWatercressRosemary

# **ITALIAN PARSLEY**



#### General Information

Parsley leaves, whether fresh or dried, can be added to sauces, pastas, scrambled eggs, omelettes, mashed potatoes etc. Freshly picked flat leaf parsley has a finer flavour than the curly variety

# Preparation and Serving

Can be used in almost any savoury dish. Chop finely and sprinkle over sandwiches, egg dishes, soups and potatoes. Chop finely with garlic or chilli with a squeeze of lemon juice to add flavour to grills or to mix vegetables.

#### SAGE



#### General Information

Sage is a pungent herb that is best used on it's own and in small quantities. Sage leaves counteract the richness of foods while helping digestion at the same time.

# Preparation and Serving

Sage can be used with all types of meat dishes and can be added to scone or dumpling mixtures and even soups. Sage is especially deficious chopped into a rich creamy sauce.

#### SORREL



#### General Information

French sorrel grows thick clumps like spinach. The broad, rather long leaves are light green and have refreshing acid taste, not as pronounced as the wild English sorrel.

# Preparation and Serving

A well known use for sorrel is in soup, a favourite dish with the french. Sorrel sauce is delicious with cold poultry, fish moulds, potatoes or as a filling for omelettes. The young leaves are tasty when shredded on green salads. As is the case with spinach, sorrel should not be cooked in aluminium saucepans.





Thyme

#### **TARRAGON**



#### General Information

Tarragon is native to Mediterranean countries and has long been popular in continental cookery. It has a unique aniseed aroma, and is one of the most sought after culinary herbs. The leaves are long and narrow. Yellowish buds appear in the late summer. Another form of tarragon known as winter tarragon is proving to be popular. If french tarragon is unobtainable, this is an excellent substitute. Used medicinally, the herb was known to give relief to bites and stings and also had the reputation of being a friend to the "Head, Heart and Liver"

# Preparation and Serving

It is essential ingredient in hollandaise and bearnaise sauces and can also be used in soups, fish dishes and salads.

#### **THYME**



#### General Information

The scent of thyme evokes thoughts of good things cooking in the oven, hearty soups simmering on the stove. The special fragrance of garden thyme goes well with many dishes and is also an essential herb.

# Preparation and Serving

The pungent flavour of thyme is indispensable to soups, stews, casserole. It is delicious in bread and on buttered vegetables.

#### WATERCRESS



# General Information

A perennial water loving plant, growing to 45cm, watercress has dark green, fleshy leaves with small white flowers during late spring and summer. Watercress is rich in Vitamin C, Iron and Iodine.

#### Preparation and Serving

The slightly peppery leaves are a popular addition to sandwiches, salads, salsas, pesto, soups and garnishes. Wash leaves thoroughly before using, as they can harbour slugs.





# ROSEMARY



# · General Information

This herb is one of the most pungent with a warm, resinous scent. Rosemary helps the digestion of rich and starchy food. Rosemary can be used fresh or can be dried by hanging upside down in a well aired place. Rosemary may also be stored frozen or made into herb butter.

# Preparation and Serving

It gives a savoury tang to beef, lamb, veal, pork and poultry. It is delicious if incorporated into breads, dumplings and scone mixtures.



- Bay leaves Coriander

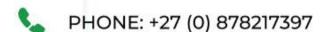
- Fennel Lemongrass
- Marjoram Origanum

- Mint Parsley Italian Parsley

- Thyme
- Watercress







- EMAIL:INFO@AGROWE-HUB.COM
- OFFICE 16, BLUEBERRY SHOPPING CENTRE, BLUEBERRY ST, HONEYDEW, ROODEPOORT, 2040







