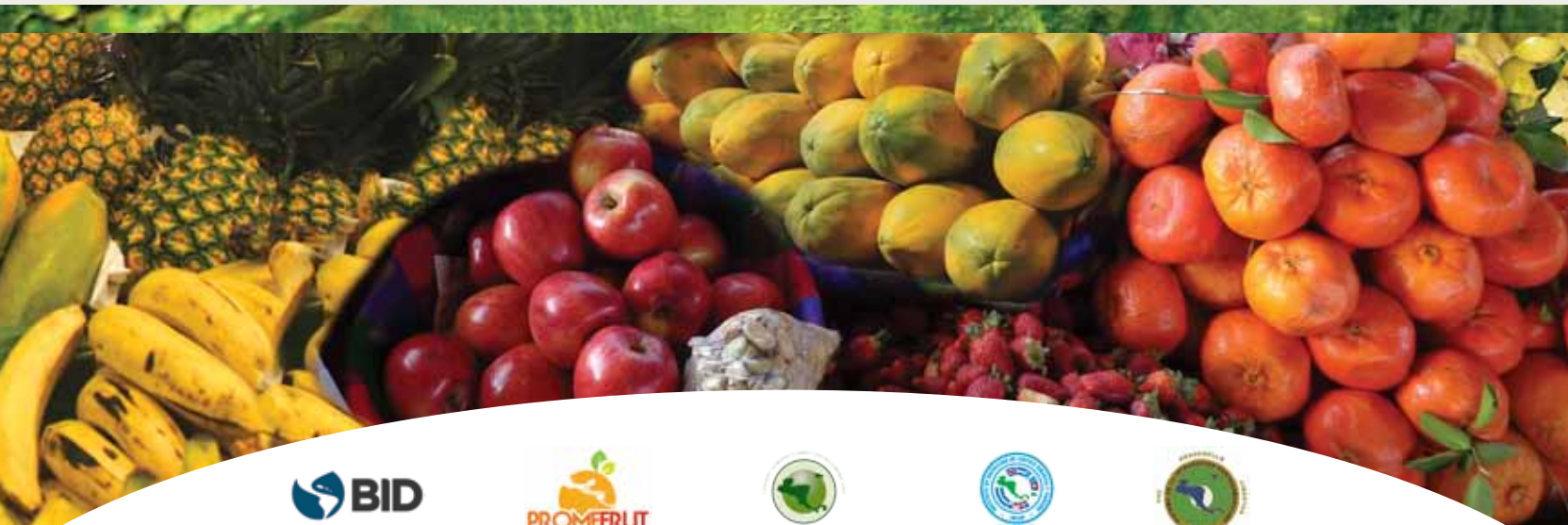




THE FRUITS OF OUR *Identity*

THE BOOK OF THE FRUITS FROM CENTRAL AMERICA AND THE DOMINICAN REPUBLIC



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| 3. CHARACTERIZATION | 4. HISTORY | 5. NUTRITION |

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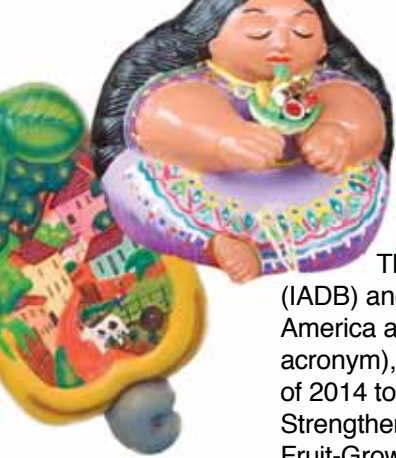
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BOOK PRESENTATION

The Inter-American Development Bank (IADB) and the Institute of Nutrition of Central America and Panama (INCAP, in its Spanish acronym), signed a cooperation agreement in June of 2014 to implement the project entitled “Institutional Strengthening to Improve the Competitiveness of the Fruit-Growing Industry in Central America and The Dominican Republic” [Sic: ATN/OC-14356-RG]; this project is well known as The Mesoamerican Fruit-Growing Project II – (PROMEFRUT II, in its Spanish acronym). The Executive Secretariat of the Central American Agricultural Council (SECAC) through the Joint Technical Committee for Fruit-Growing in the region (CTMF, in its Spanish acronym), undertakes the coordination of this project with the support of the public and private sectors of the countries being involved.

The Project strengthened the fruit-growing sector of the region through the Regional Policy for Development of the Fruit-Growing industry (POR-FRUTAS, in its Spanish acronym); in addition, it provided the development of communication, dialogue, and decision-making channels among the public and private stakeholders of the fruit-growing industry, this in order to offer timely and appropriate services to the members and decision-makers, with special emphasis on the analytical information on markets and the identification of external opportunities and threats for the sub-sector.

Within the Frame of Food and Nutritional Security of POR-FRUTAS, the PROMEFRUT II included among its activities the development of educational materials addressed to different audiences, to promote the consumption of fruits produced in Central America and The Dominican Republic. This publication, *The Fruits of Our Identity, The Book of The Fruits of Central America and The Dominican Republic*”, provides a review of the main fruits of the region.

Fruits have not only been part of our diet, but also of our identity. From the depths of our land comes a rich and diverse array of fruits that have nurtured several generations. A simple visit to the stands of local traders and artisans is sufficient to understand the importance that fruits have in our health and in our culture.

The purpose of this book is to compile information about 20 fruits that are produced and consumed in the region, in order to promote their value and importance in the daily diet and to take advantage of their seasonal availability and substantial health benefits.

Carolina Siu
Director of INCAP





I. INTRODUCTION

Due to its excellent climate and fertile soil, Mesoamerica is a privilege land, with many fruits and vegetables which are cultivated by men or grown in the wild. The Popol Vuh, the sacred book of the Mayas, narrates the creation of the world, of the man and of the woman, using the following terms to describe the food abundance in the region... “And they were filled with happiness because they had discovered a beautiful land, filled with delights, abundant in yellow and white maize ears, and also abundant in pataxte and cacao and countless red mamey, sugar-apple, nance, matasano (white mamey), and honey. There was abundance of tasty foods in the town called Paxil and Cayalá”¹.

When Spaniards first arrived in America, they discovered an exuberant, extremely colorful but unknown flora and fauna, so they recorded their findings. They named and described them using references known in Spain; throughout this book some of these descriptions are included.

Since plenty of fruits and vegetables have been in the region for ancient times, they have become part of the population's

feeding habits and culture. However, nowadays consumption of these type of natural products has decreased and has been replaced by processed foods. This change in feeding patterns has caused serious health problems in the population, such as obesity and other diseases. In view of this situation, INCAP and other international organizations such as WHO, PAHO, and FAO, are implementing several initiatives to promote the consumption of fruits and other vegetable products as part of healthy life styles.

The consumption of fruits, besides being essential for our health, plays an important role in the economy of the region. Central America and The Dominican Republic are among the main world export countries of fruits such as banana, pineapple, and cantaloupe melon; this in turn contributes to the generation of income, the creation of new jobs, and the promotion of rural areas development. In summary, fruits are an essential part of the food culture since ancient times and are indispensable for the health and the economy of the population in Central America and The Dominican Republic.

1. Olaya, Clara Inés. Frutas de América Tropical y Subtropical. Historia y Usos. Editorial Norma. Colombia 1998. P 138

THE FRUITS OF OUR IDENTITY

The purpose of this book, which is aimed to the general public is to contribute to the knowledge of fruits characteristics in order to increase the consumption practices and, by doing this, to improve the diet diversity, to fortify the feeding culture, and to promote good feeding habits as part of a healthy life style.

Knowing that the region produces a great amount and variety of fruits, this book does not pretend to make a

comprehensive study of all of them. It only includes the main characteristics of 20 fruits that are produced and consumed in the region. This book includes information for each fruit, regarding its nutritional value, health benefits obtained by its consumption, and recommendations for its selection, preparation, and conservation.



The background of the slide is a close-up photograph of numerous triangular slices of watermelon. The slices are piled together, showing the vibrant red flesh, the lighter green rind, and several dark seeds. The lighting is bright, highlighting the texture of the fruit.

II. FRUITS

generalities

A collage of various fruits including bananas, dragon fruit, pineapple, watermelon, papaya, oranges, grapes, and avocado. The fruits are arranged in a circular pattern around the central text.

DEFINITION

Fruits are known as the edible products that are obtained from plants cultivated by men or grown in the wild and which flavors are either sweet or sour. Fruits come in a great variety of colors, aromas, flavors, and textures that make them much versatile and delightful when it comes to consuming them; each fruit has a unique and unmistakable flavor; besides its nutrient content, **fruits provide color, variety, and flavor to the meals**

VARIETIES

Fruits can be classified into different categories, depending on the region where they are produced or by sharing common characteristics. The following classifications can be mentioned:



TEMPERATE
FRUITS

These grow in cold temperate climates. For example: plum, peach, and apple.



TROPICAL AND
SUBTROPICAL
FRUITS

These grow in warm climates with high humidity. For example: banana, mango, pineapple and passionfruit.



CITRUS
FRUITS

These grow in perennial shrubs and their fruits are rich in Vitamin C so their flavor is sour. For example: lemon, orange, and mandarin orange.



FOREST
FRUITS

These generally grow in wild shrubs. Example: Blackberry, raspberry and strawberry.

SELECTION

Selection of fruits must be done based on their degree of ripeness and quality characteristics. The process of ripeness is an essential part of fruit development and it eventually leads to tissue ageing and death.

In most fruits, several changes can be observed during the process of ripeness:

1. Changes in texture and reduction of firmness.
2. Changes in color, usually the green color is being replaced by red and yellow tones.
3. Changes in flavor and aroma, usually the fruit becomes sweeter.



In the selection and purchase of fruits, it is recommended to:

1. Choose seasonal fruits or those produced in larger quantities. The Ministries of Agriculture or Agricultural Service Organizations can provide information regarding fruit production schedules in order to know the periods of larger productions.
2. Notice if fruits are not damaged with bruises, ripped skin, bug bites, dark spots, and unpleasant smells.
3. Pick the fruit with firm pulp and do not get carried away by its size since it is not necessary an indicator of quality or good flavor.
4. Pick the ripeness of the fruit in accordance with to the time it will be consumed.
5. Ripe fruit that is unsuitable for fresh consumption can be used to make jellies, marmalades, and compotes.
6. Purchase only the amount of fruits you will need.



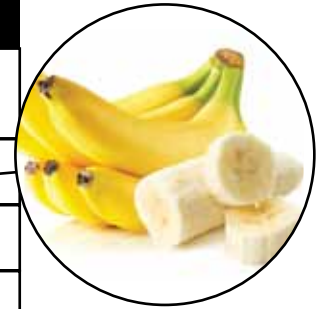


PREPARATION

In general, fruits are consumed fresh, cooked or dehydrated. Most fruits due to their soft consistency and delightful flavor, can be consumed fresh or uncooked. Therefore, hygiene is extremely important in order to eliminate bacteria and parasites and to discard insecticides residues.

WAYS TO INCREASE THE CONSUMPTION OF FRUITS

1. During snack times, replace sweets and processed products with a variety of cut-up fruits.
2. Add fruits to the breakfast cereal.
3. Consume fruits in restaurants that provide them.
4. Drink fruit juice or natural fruit drinks instead of processed sugar-sweetened drinks or carbonated drinks.
5. Prepare fruit drinks in an appealing way.





Due to its Vitamin C content, fruits must be peeled and chopped a few moments before consumption since this vitamin is destroyed once it gets in contact with air.





It is recommended to peel and chop the fruit within the shortest possible time before consumption. Once the fruit gets in contact with air, oxidation turns it into a brownish appearance and therefore becoming less appealing. Brownish color can be delayed by spraying lemon on the fruit.



The fruit, fresh, ripe and clean, peeled or unpeeled, can be consumed as a whole or chopped into big or small pieces, in purees, juices, juice drinks, salads and as part of prepared desserts that are made with milk, gelatin or flan, as suggested hereafter:

SOME WAYS TO PREPARE FRESH FRUITS

PREPARATION	WAYS TO PREPARE AND ADVICES
<p>Natural Fruit</p> 	<ul style="list-style-type: none"> • Just washed, unpeeled, such as apple, pear, plum, peach or strawberry. In this way fruit nutrients can reach the organism in an optimum way. • Natural fruit in pieces. During the chopping and peeling process the content of fiber and some vitamins may decrease. However, this only occurs in the areas immediately around the cut and not inside the fruit. Once the fruits are peeled, part of the fiber content and some vitamins C, B1, and folic acid are lost, although this is a non-significant decrease compared to the benefits obtained from eating the fruits.
<p>Juice</p> 	<ul style="list-style-type: none"> • The juice is obtained by squeezing the fruit with the hand or with a manual or electric juice squeezer. • Can use any fruit that provides juices such as orange, grapefruit, and pineapple. • Hand hygiene is extremely important as well as that of the fruit and of the kitchen tools being used. • Prefer homemade juices over industrialized juices since the latter use too much sugar, dyes, artificial flavors, and other additives.

PREPARATION	WAYS TO PREPARE AND ADVICES
<p>Purees</p> 	<ul style="list-style-type: none"> • They can be obtained by mashing the pulp of the fruit with a fork. • Use fleshy fruits such as bananas and papaya. • These are ideal for small children.
<p>Juice Drinks</p> 	<ul style="list-style-type: none"> • These are liquid preparations based on fruit juices and purees to which iced water and sugar are added. These can have milk as well. • Can use orange, pineapple, papaya, banana, mandarin orange, lemon, tamarind, among others.
<p>Salads</p> 	<ul style="list-style-type: none"> • These are combinations of fruits chopped in pieces or slices. • Select sweet and sour fruits with different smells that result in attractive combinations. • Can be made of papaya, pineapple, cantaloupe melon, apple, peach, banana, orange, among others. • Sugar and orange or lemon juice may be added. • Can be combined with vegetables and seeds, for example: potato salad with apple and nuts, pineapple-carrot and raisins, lettuce-tomato-cucumber-mango. • Sweet or salty dressings may be added.
<p>Sherbet</p> 	<ul style="list-style-type: none"> • The main components are water and fruit juice; no fatty ingredients or eggs are added.

Fruits can also be consumed as compotes, jellies, cakes, gelatins, ice-creams, sherbets, and other desserts. In addition, fruits can also be part of salty dishes such as meats, salads or sauces.

CONSERVATION

The main purpose of fruit conservation is to take advantage of seasonal fruits and to avoid large amounts of fruit loss due to deterioration or excessive ripeness. In addition, this makes fruits available or at hand during the whole year and to provide variety to the meals.

Once fruits are harvested or purchased, they must be washed to eliminate rests of soil, microorganisms, and residues of other substances. After they are cleaned, they must be stored or prepared for conservation at room temperature or in the fridge.

There are simple procedures available for delaying fruit deterioration, for example, storing fruits in cool and dry places will conserve them for several days depending on their degree of ripeness.

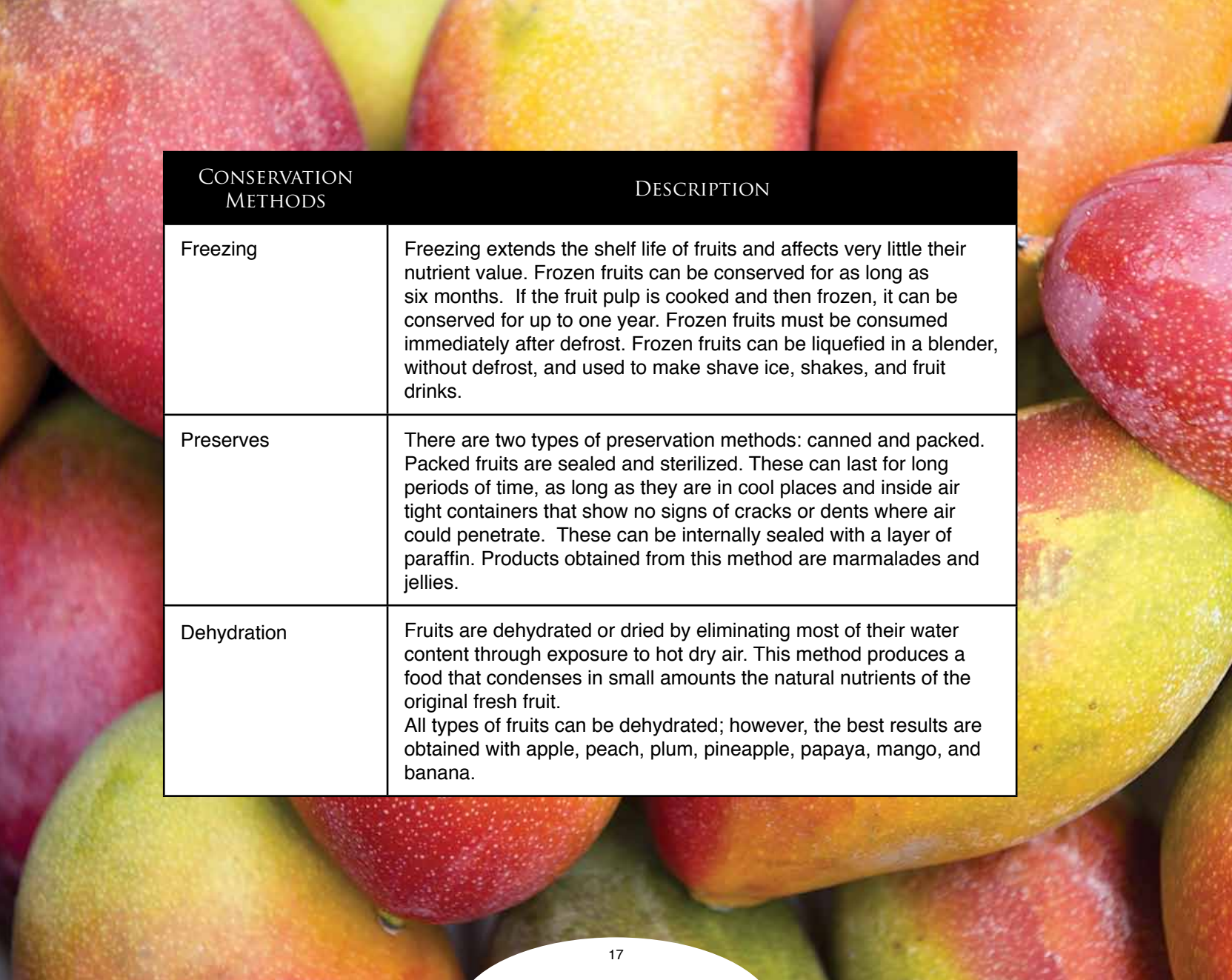
During storage, it is recommended:

- To protect the fruits from the attack of rodents and insects.
- To handle the food carefully in order to avoid damage or bruising.
- To conserve the fruits under optimum ranges of temperature and relative humidity, taking into account the maximum time period allowed for the fruit to be conserved without getting spoiled.

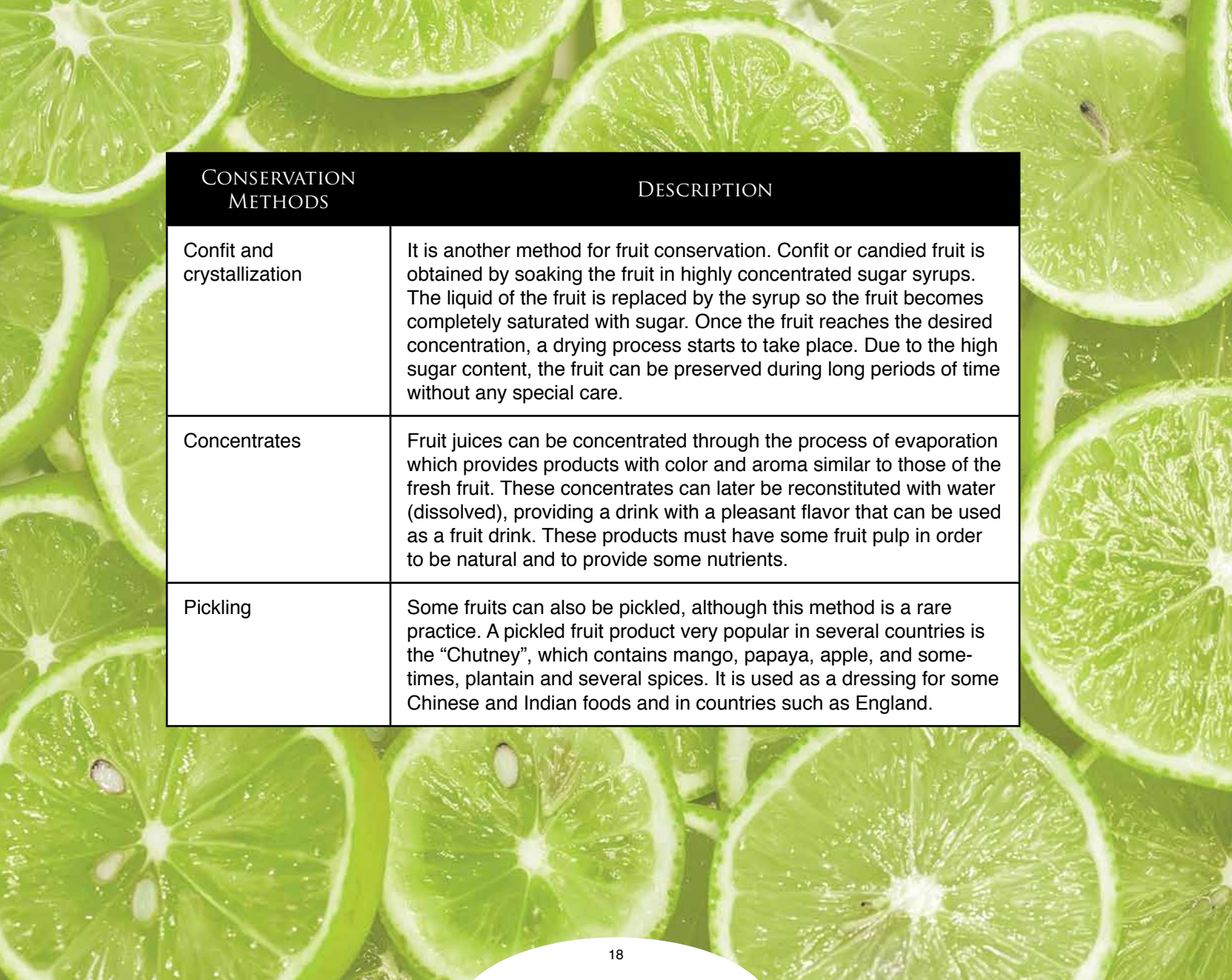
To conserve fresh fruits in the fridge, it is recommended to keep them in transparent plastic bags with holes to allow for free air circulation. Place fruits in the lower drawers of the fridge. Some fruits, such as cantaloupe melon and pineapple, must be stored in air tight containers since their odor may contaminate other foods, specially water and milk.

At very low temperatures (around -20 °C), fresh products are frozen and this causes tissue damage and unpleasant flavors once they go back to higher temperatures. Fruits such as papaya, plantain, banana, and pineapple show tissue degradation, blackening, and unpleasant flavors if kept at very low temperatures for some periods of time.

Other methods for fruit conservation that can be used to extend the shelf life of fruits are described in the following tables.



CONSERVATION METHODS	DESCRIPTION
Freezing	<p>Freezing extends the shelf life of fruits and affects very little their nutrient value. Frozen fruits can be conserved for as long as six months. If the fruit pulp is cooked and then frozen, it can be conserved for up to one year. Frozen fruits must be consumed immediately after defrost. Frozen fruits can be liquefied in a blender, without defrost, and used to make shave ice, shakes, and fruit drinks.</p>
Preserves	<p>There are two types of preservation methods: canned and packed. Packed fruits are sealed and sterilized. These can last for long periods of time, as long as they are in cool places and inside air tight containers that show no signs of cracks or dents where air could penetrate. These can be internally sealed with a layer of paraffin. Products obtained from this method are marmalades and jellies.</p>
Dehydration	<p>Fruits are dehydrated or dried by eliminating most of their water content through exposure to hot dry air. This method produces a food that condenses in small amounts the natural nutrients of the original fresh fruit.</p> <p>All types of fruits can be dehydrated; however, the best results are obtained with apple, peach, plum, pineapple, papaya, mango, and banana.</p>



CONSERVATION METHODS	DESCRIPTION
Confit and crystallization	It is another method for fruit conservation. Confit or candied fruit is obtained by soaking the fruit in highly concentrated sugar syrups. The liquid of the fruit is replaced by the syrup so the fruit becomes completely saturated with sugar. Once the fruit reaches the desired concentration, a drying process starts to take place. Due to the high sugar content, the fruit can be preserved during long periods of time without any special care.
Concentrates	Fruit juices can be concentrated through the process of evaporation which provides products with color and aroma similar to those of the fresh fruit. These concentrates can later be reconstituted with water (dissolved), providing a drink with a pleasant flavor that can be used as a fruit drink. These products must have some fruit pulp in order to be natural and to provide some nutrients.
Pickling	Some fruits can also be pickled, although this method is a rare practice. A pickled fruit product very popular in several countries is the “Chutney”, which contains mango, papaya, apple, and sometimes, plantain and several spices. It is used as a dressing for some Chinese and Indian foods and in countries such as England.



III. FRUITS AND *health*

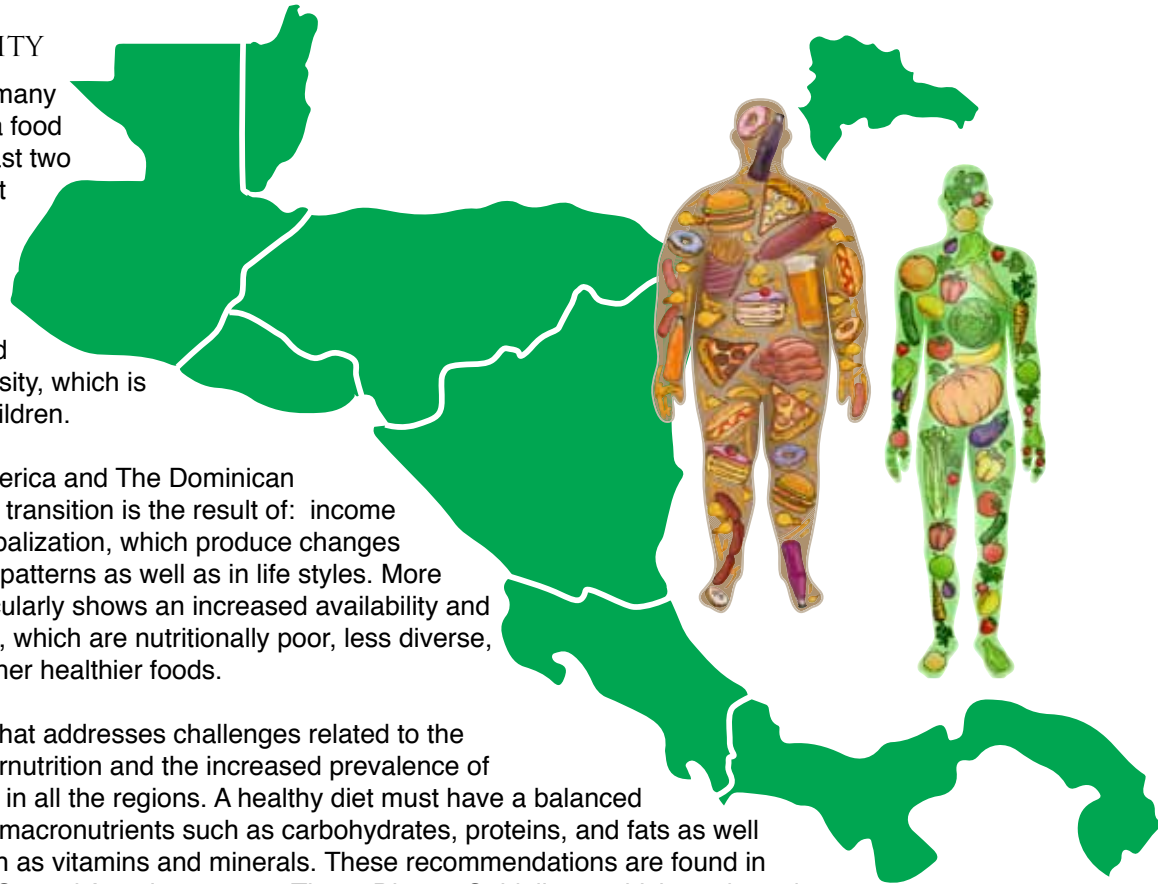
THE FRUITS OF OUR IDENTITY

The Latin American region, as many other countries, is undergoing a food and nutrition transition. In the last two decades, there have been great advances regarding hunger and undernutrition reduction; however, nowadays all the countries of Latin America and the Caribbean show a rapid increase in overweight and obesity, which is greatly affecting women and children.

For the countries of Central America and The Dominican Republic, the food and nutrition transition is the result of: income increase, urbanization, and globalization, which produce changes in production and consumption patterns as well as in life styles. More specifically, this transition particularly shows an increased availability and demand of energy-dense foods, which are nutritionally poor, less diverse, and cheaper, compared with other healthier foods.

Nutrition is the common factor that addresses challenges related to the eradication of hunger and undernutrition and the increased prevalence of obesity and overweight present in all the regions. A healthy diet must have a balanced combination of foods providing macronutrients such as carbohydrates, proteins, and fats as well as essential micronutrients such as vitamins and minerals. These recommendations are found in the Dietary Guidelines of each Central America country. These Dietary Guidelines, which are based on foods, promote the consumption of a great variety of cereals, legumes, fruits, and vegetables as well as the necessary amounts of foods from animal origin. It is important to consider that dietary diversity is the key for maintaining healthy diets, which in turn, have positive effects on the population nutritional status.

Latin America is considered as the region with the highest prevalence of obesity in the world. It is estimated that two thirds, 66% of the adult population, is affected regardless of the socioeconomic level; and this is particularly true in women. This fact has a relevant impact on the increase of Chronic Non-Communicable Diseases such as diabetes, cardiovascular diseases, and cancer. All together represent the main cause of death in the region and even though contradictory, undernutrition and overweight share a common cause because the amount of healthy



foods is not being consumed enough. This because the diet has gone from consumption of fresh and nutritional foods to that of highly concentrated fats and sugars.

Among the challenges to be addressed in order to fight this problem, is that of promoting a nutritional food system that produces environmentally sustainable foods, that are safe and nutritious, and that respond to the diet diversity in accordance with life stages and physiological conditions. Therefore, the sustainable healthy food production web must be strengthened and become more environmentally friendly. Promoting the consumption of healthy diets is a key factor that would simultaneously decrease hunger, undernutrition, overweight, and obesity.

A) NUTRIENTS AND FRUITS

The most abundant nutrients in fruits and vegetables, compared to the content in other foods, are water, vitamins, minerals, carbohydrates, dietetic fiber, and other biologically active substances. Most fruits have a high water content but a low protein and fat content.



WATER



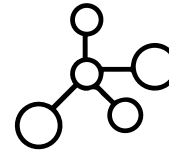
VITAMINS



MINERALS



**FIBER AND
CARBOHYDRATES**



**ACTIVE
SUBSTANCES**





The water content is usually greater than 70% and in some cases up to 85% as is the case with watermelon and cantaloupe melon. The protein content, with few exceptions as with passion fruit and the guava, exceeds 5%; and the fat content, with the exception of the avocado and the coconut pulp, is 0.5%. Due to this, the energy content of fruits is less than 100 kilocalories per serving if they are consumed fresh and without adding any product containing calories such as sugar, honey, cream, etc.

Fruits are an important source of digestible and non-digestible carbohydrates; the former are widely found in the form of sugar and starch and are responsible for providing the characteristic flavor of the fruit and energy. Non-digestible carbohydrates are found in the form of fiber which can be soluble (pectin and gums) and insoluble (cellulose).

THE FRUITS OF OUR IDENTITY

The daily dietary fiber recommendation is 25 to 30 grams; of this about 10 grams could be covered by the consumption of at least five servings of fresh fruit per day.

Fiber is mainly found in the skin and the pulp, so fresh fruits have more fiber than those that have been peeled, cooked, or processed. For example, we can compare the fiber content of the apple based on different ways of consumption as follows:

A) A WHOLE APPLE UNPEELED 3.0 grams of fiber	B) A WHOLE APPLE PEELED 1.7 grams of fiber	C) ½ CUP OF APPLE PUREE 1.5 grams of fiber	D) ¾ CUP OF APPLE JUICE 0.2 grams of fiber
			

Source: Larson R. Complete Food & Nutrition Guide. USA. 3er. Edition. The American Dietetic Association. 2006

Despite an existing variation in the vitamin content from one fruit to another, freshest fruits have Vitamin C, and the citric fruits have the highest amounts. Examples of citric fruits with high content of vitamin C are: orange, lemon, grapefruit, strawberry, jocote, cashew, pineapple, green mango, and red mamey.

Fruits also provide vitamin A. This vitamin is found as carotenes or pro-vitamin A that is later transformed by the human organism into vitamin A. Fruits that contain high amounts of vitamin A are those that have a yellow or an intense red color such as mango, loquat, papaya, cantaloupe melon, mamey, and peach.

Fruits also have significant amounts of minerals such as potassium and calcium, among others. In addition to nutrients, fruits have other natural bioactive components called phytochemicals that are responsible for the color, aroma, and the characteristic flavor of fruits. Fruits also supply antioxidant effects that in turn provide potential health benefits.

B) HEALTH PROTECTIVE FUNCTION

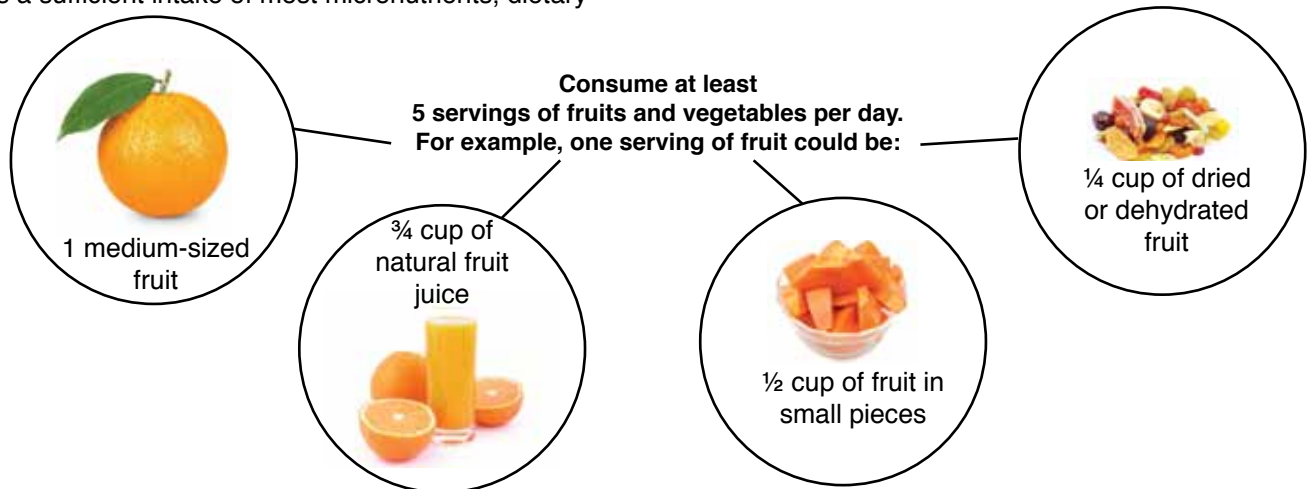
The World Health Organization (WHO), within the framework of “The Global Strategy on Diet, Physical Activity and Health”, indicates that fruits and vegetables are essential components of a healthy diet and that a daily intake in sufficient quantities could contribute to the prevention of important conditions, such as cardiovascular diseases and some types of cancer.

Each year up to 1.7 millions of lives could be saved if fruits and vegetables were consumed in sufficient quantities. The integration of fruits and vegetables into the daily diet could help to prevent important non-communicable diseases, such as cardiovascular diseases, type II diabetes, hypertension, and some types of cancer.

The consumption of a variety of fruits and vegetables guarantees a sufficient intake of most micronutrients, dietary








fiber, and other substances. In addition, the consumption of more than five servings of fruits and vegetables per day could help to replace the consumption of saturated fats, sugars or salt.

The WHO and the Food and Agriculture Organization of the United Nations (FAO) have launched the “5 a day” campaign. This recommends that every member of a family eats at least five servings of fruits and vegetables per day, (approximately 400 grams; for example, 5 servings of 80 grams each one). These foods are basic for an adequate child development due to their rich content of vitamins, minerals, fiber, and carbohydrates; they also help prevent obesity which is a risk factor for non-communicable diseases such as hypertension, heart disease, cancer, and type II diabetes.



The serving size, the weight in grams, and the nutrition value of 20 fruits is described in Annex 2.

EXAMPLES OF FRUIT SERVING SIZES

SIZE OF SERVING	EXAMPLES OF FRUITS
½ cup of fruit in small cuts	Papaya, pineapple, cantaloupe melon, watermelon 
2 small-sized units	Mandarin orange, plum, peach 
1 medium-sized unit	Apple, orange, guava 
1 medium-sized unit	Banana 
½ unit	Avocado, red mamey 
¾ cup	Natural fruit juice 
¼ cup	Dehydrated fruit 



Based on the abovementioned health benefits, The National Institute of Cancer and the American National Fund for Cancer Research, promote the following diet recommendations in the “Food, Nutrition, and Cancer Prevention Report: A Global Perspective”, 1997: Eat a daily intake of 400-800 grams; it means, five or more servings of a variety of vegetables and fruits to reduce overweight and obesity as well as non-communicable diseases and some types of cancer.

With these goals in mind, the initiative for the “Regional Fruit Day” was promoted within the framework of the Regional Policy for Fruit-Growing Development (POR-FRUTAS) and the Regional Policy for Food and Nutrition Security

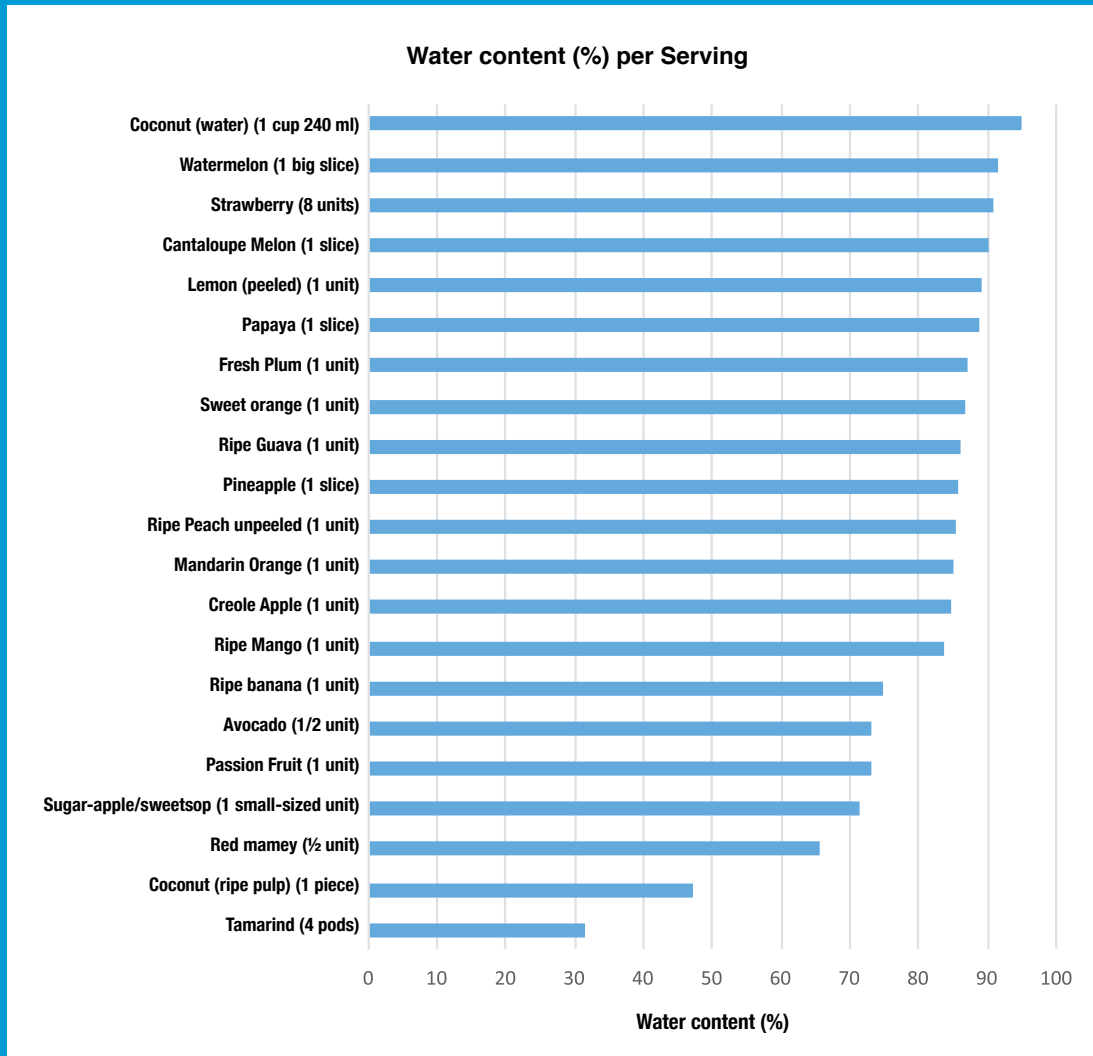
(PoISAN); with the support of the PROMEFRUT II Project, executed by the Central American Agricultural Council (CAC) and INCAP, and financed by the IADB.

This day marks a space for public awareness on the importance of fruits as basic foods in the daily diet. This contributes, with education processes, to strengthen healthy food habits in the population. In addition, it informs and communicates the need to increase the intake of fruits and vegetables, which in turn helps to obtain a healthy diet and contributes to reduce the risk of developing certain non-communicable diseases (NCDs). It also gives the opportunity to boost local and national fruit markets.

THE FOLLOWING SECTIONS INCLUDE INFORMATION REGARDING THE NUTRITIONAL CONTENT OF SOME FRUITS. THESE FRUITS ARE CONSIDERED AS THE BEST SOURCES OF KEY NUTRIENTS WHICH ARE ESSENTIAL FOR RELEVANT HEALTH FUNCTIONS.

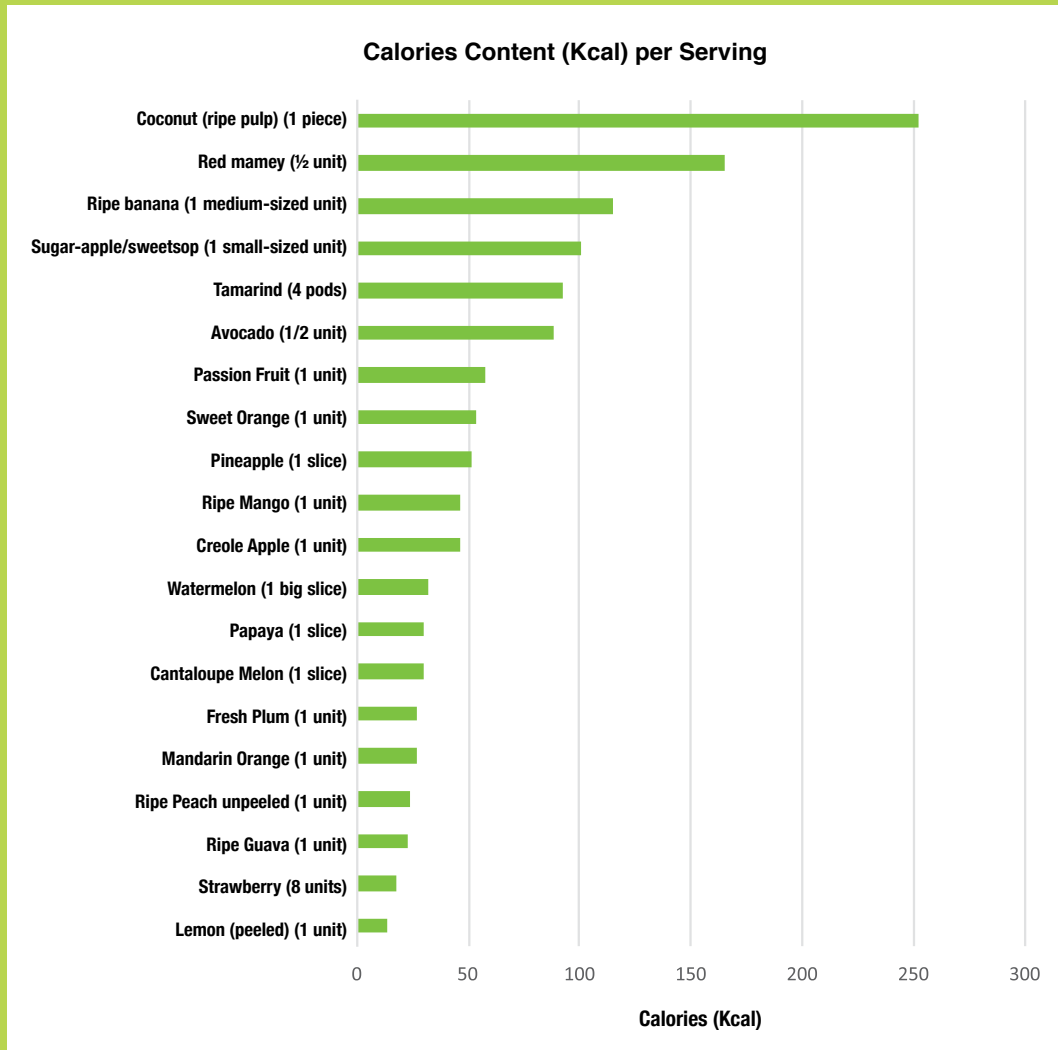
FRUITS WITH THE HIGHEST
Water Content
PER SERVING





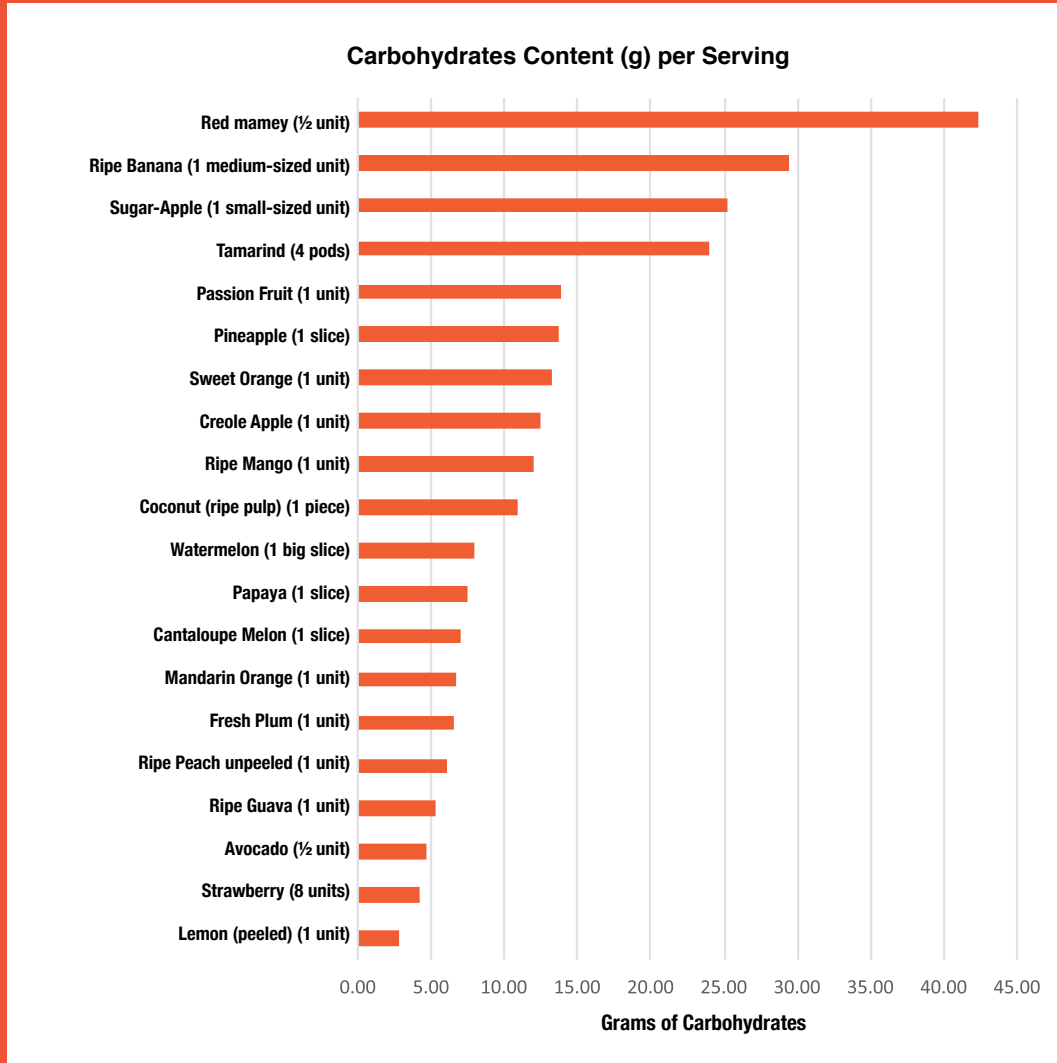
FRUITS WITH THE HIGHEST
Energy Content
PER SERVING





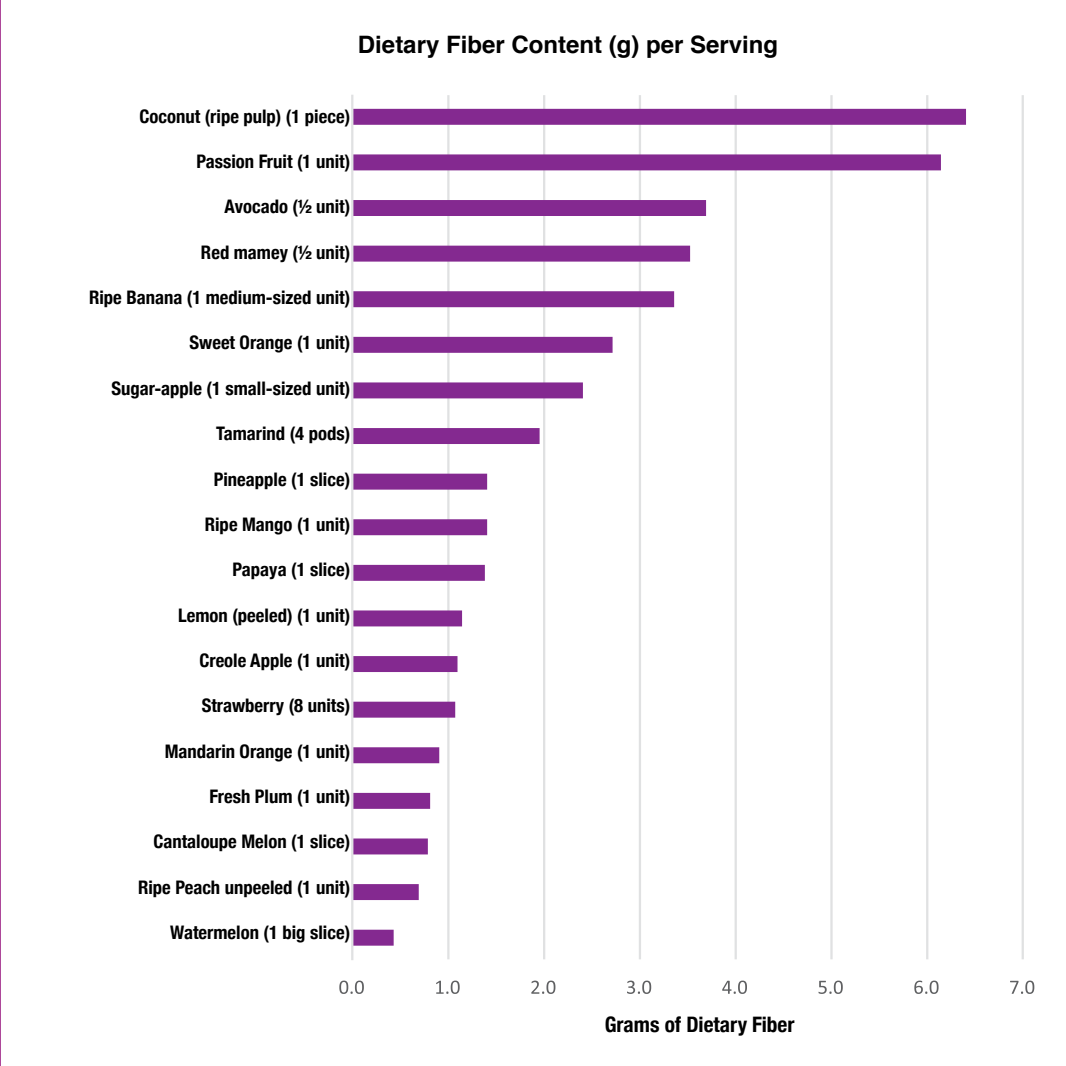
FRUITS WITH THE HIGHEST
Carbohydrates
Content
PER SERVING





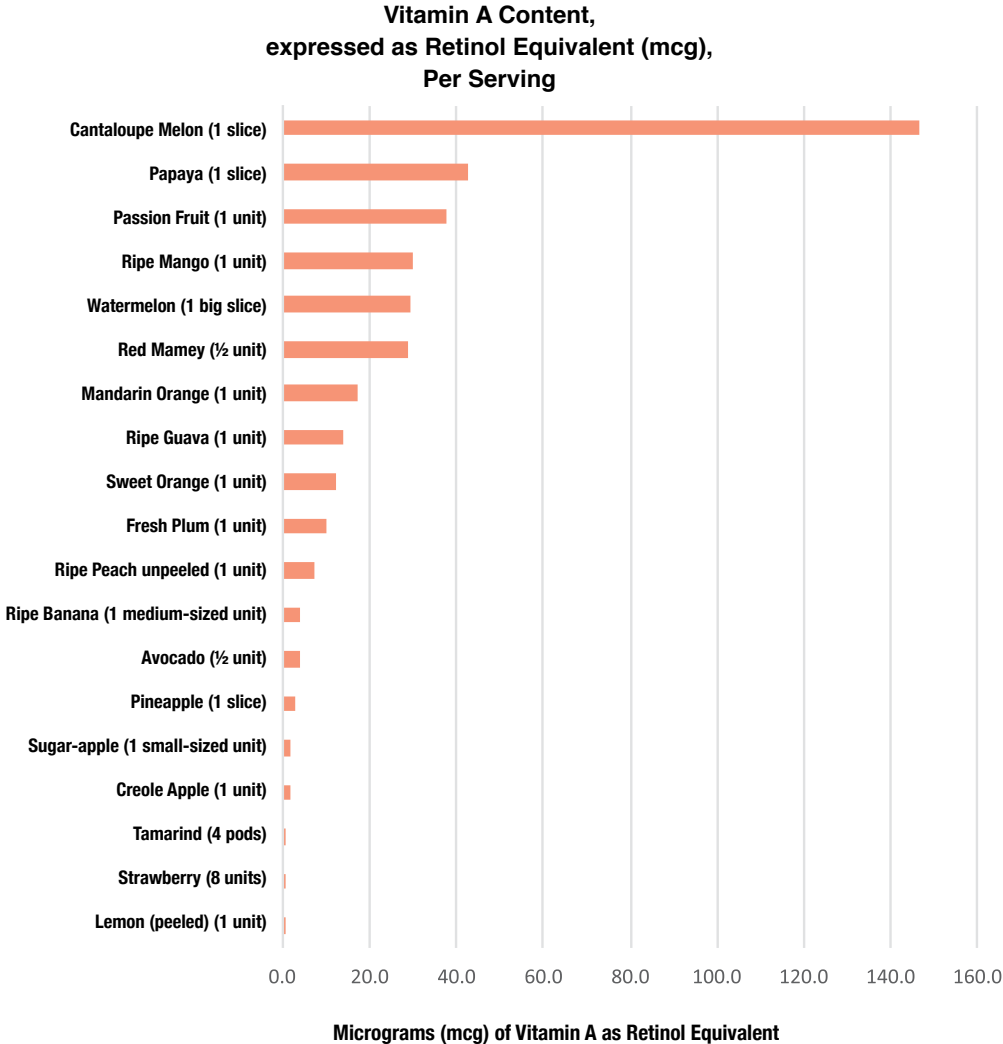
FRUITS WITH THE HIGHEST
Fiber Content
PER SERVING





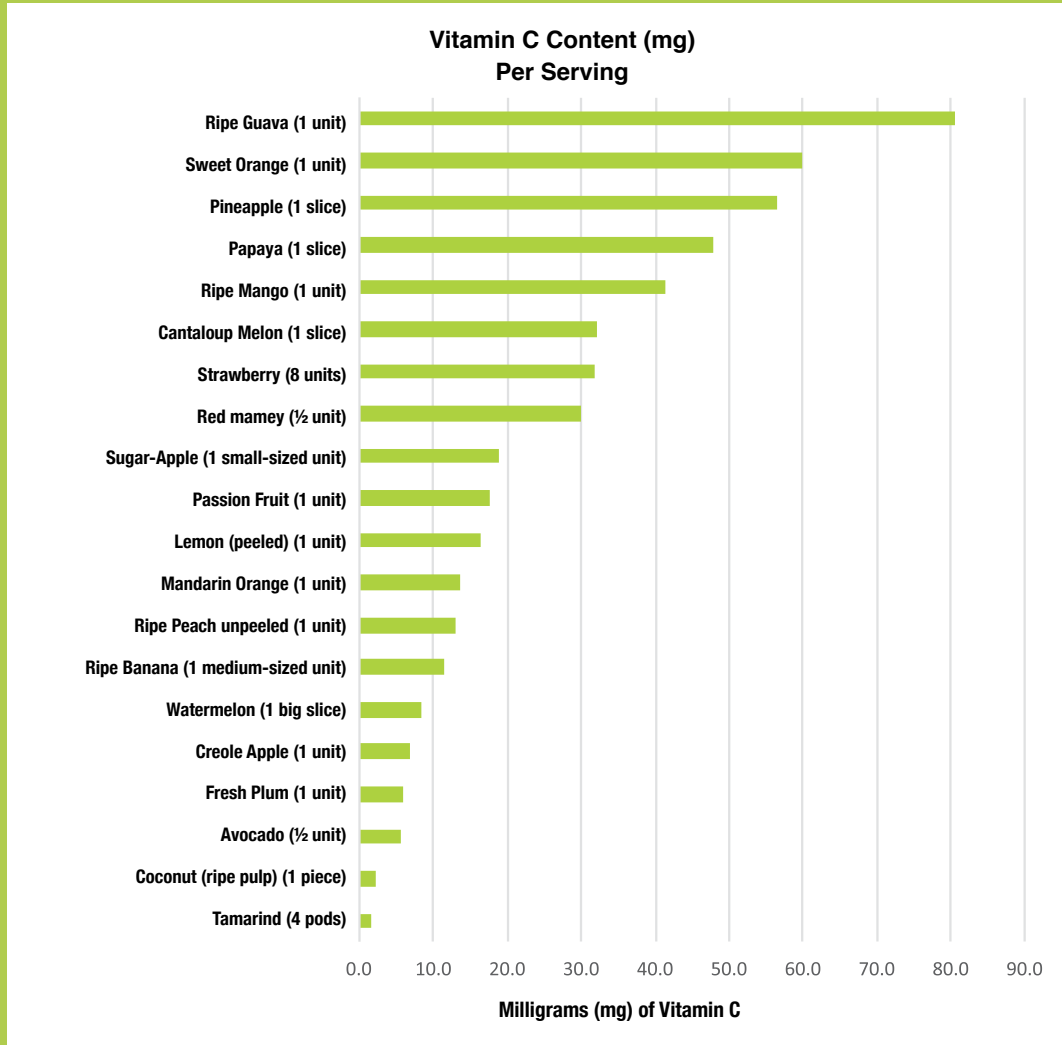
FRUITS WITH THE HIGHEST
Vitamin A
Content
PER SERVING





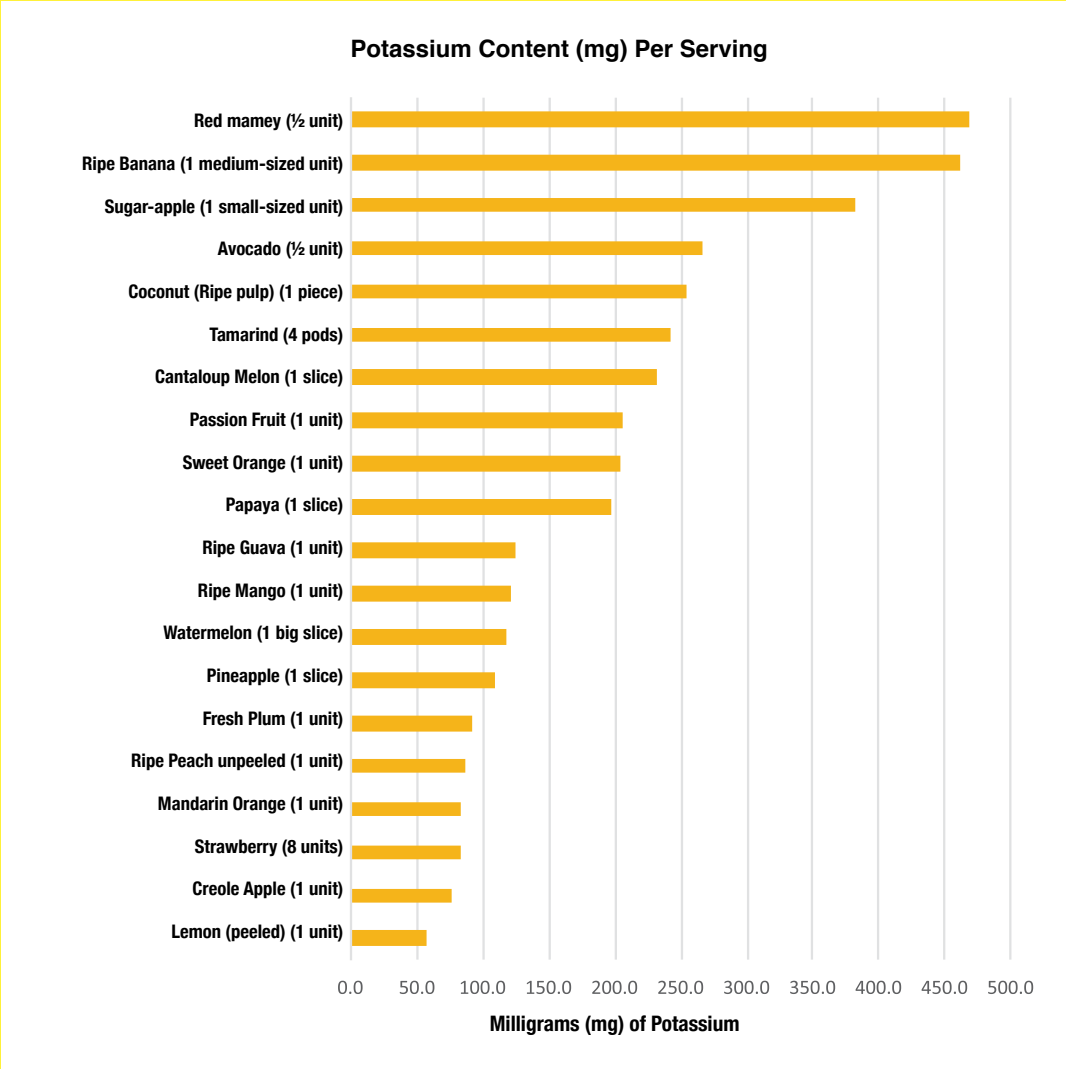
FRUITS WITH THE HIGHEST
Vitamin C
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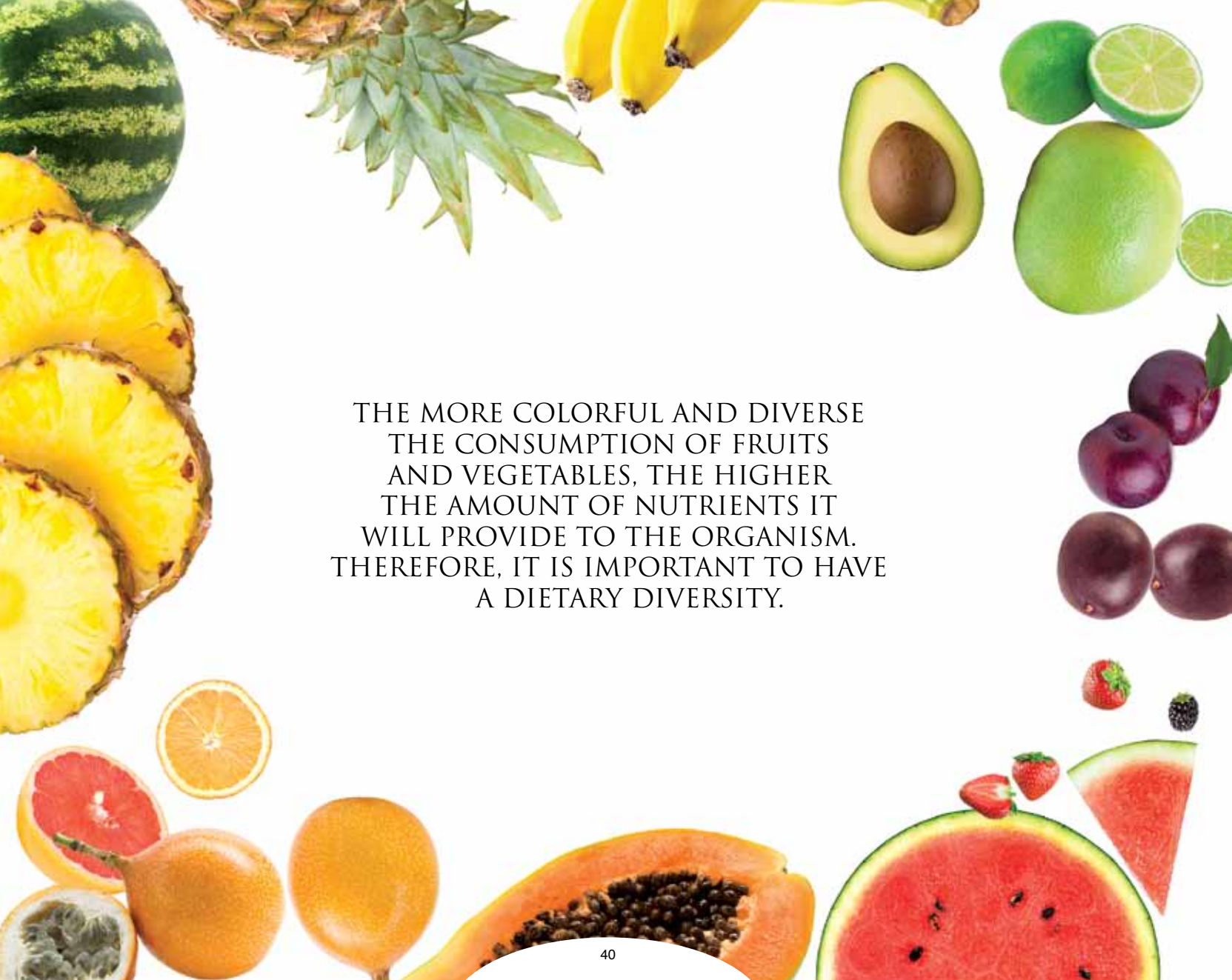




FRUITS WITH THE HIGHEST
Potassium
Content
PER SERVING





A collage of various fruits including watermelon, pineapple, banana, avocado, lime, apple, orange, grapefruit, papaya, and strawberry. The fruits are arranged around the central text, with some sliced and some whole. The background is white.

THE MORE COLORFUL AND DIVERSE
THE CONSUMPTION OF FRUITS
AND VEGETABLES, THE HIGHER
THE AMOUNT OF NUTRIENTS IT
WILL PROVIDE TO THE ORGANISM.
THEREFORE, IT IS IMPORTANT TO HAVE
A DIETARY DIVERSITY.



IV. CHARACTERIZATION OF 20 FRUITS
*of Central America And
the Dominican Republic*

A RAINBOW OF FRUITS

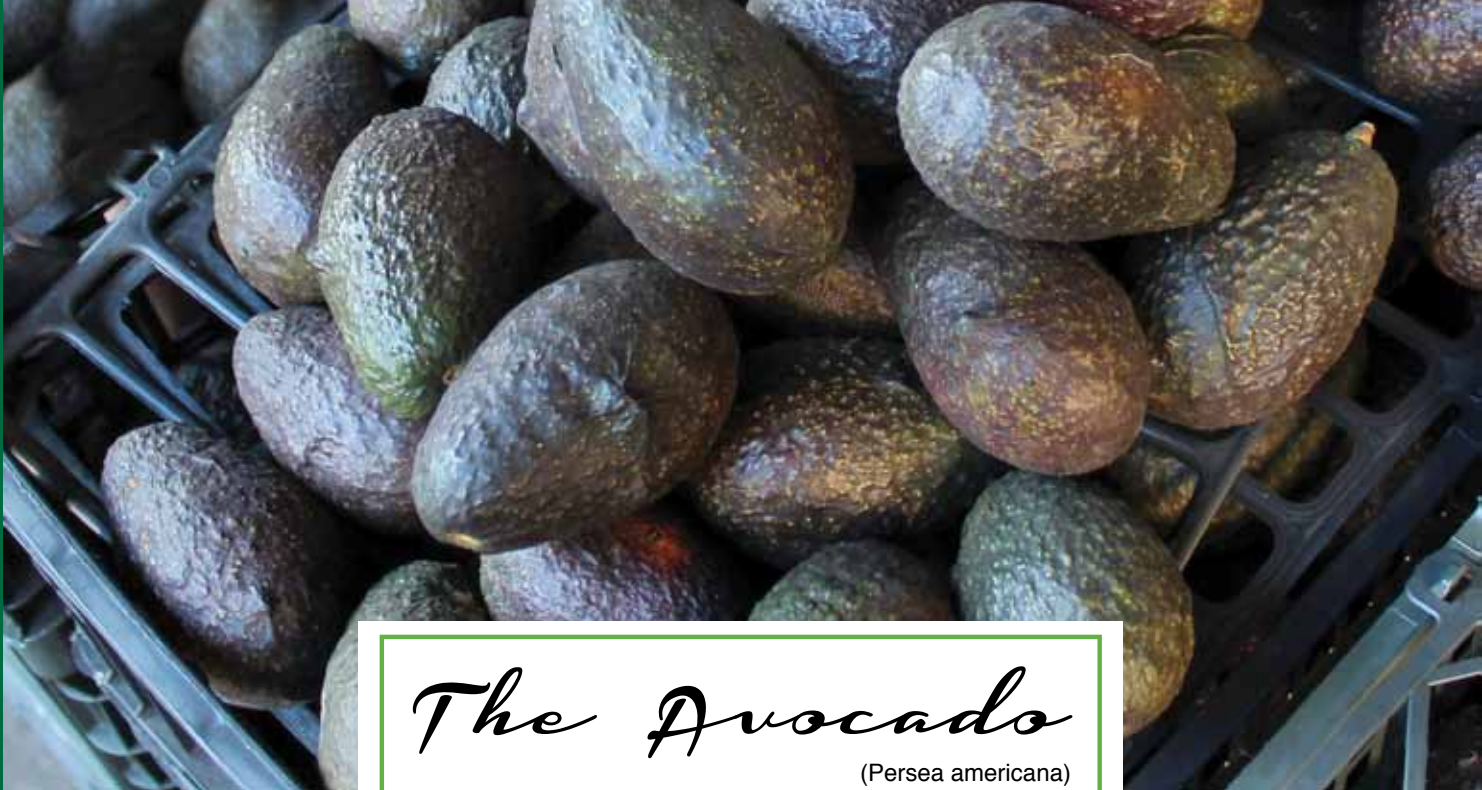
Nature offers us fruits with a wide variety of colors, in their skin as well as in their pulp; it is almost like a rainbow of fruits. Each fruit contains a different amount of vitamins, minerals, fiber, and phytochemical compounds; therefore, it is recommended to consume more than five servings of fruits and vegetables per day and to try to get as many different colors as possible.

- a) Blue, violet: blueberries, purple figs, purple grapes, plums, grapes.
- b) Green: green apples, green grapes, kiwi, limes, pears, green mango.
- c) White: bananas, brown pears, white peaches.
- d) Yellow-Orange: oranges, peaches, melon, nectarines, papaya, yellow peaches, persimmon, pineapple, mamey.
- e) Red: red apple, cherry, red grape, pink grapefruit, red pear, strawberries, watermelon.

This chapter provides information regarding the origin, nutritional properties, recommendations or tips for selection when purchasing, and different ways of preparing and consuming 20 fruits produced in the Central American Region and The Dominican Republic.







The Avocado

(Persea americana)

The first Spaniards that arrived in this region found the avocado in the field and in the markets from Mexico to Peru, due to its shape they believed that it was a pear, so they baptized it with the name of “Indian Pear”.

Chroniclers of that time describe this fruit as follows:

“There are beautiful and big trees that Christians called perales. In fact, the fruit they provide is similar to a pear in appearance and color, but its body is as fat as a Borseguí de Cordobán (a footwear used in Medieval times) ... These trees are found in the mountains where neither Indians nor Christians have worked the soil, the only farmer there is God, I saw many of these perales in the provinces of Nicaragua, in Indian plazas or towns and cultivated by them”

(Olaya, Clara Inés. Frutas de América Tropical y Subtropical. Historia y Usos. Editorial Norma. Colombia 1998. p. 18).



ABOUT

The Avocado

Also known in the Region as: palta, cura, and paguana

It is native of America. Nowadays, it is produced in tropical regions.



NUTRIENTS OF THE AVOCADO AND HEALTH BENEFITS:



High energy value



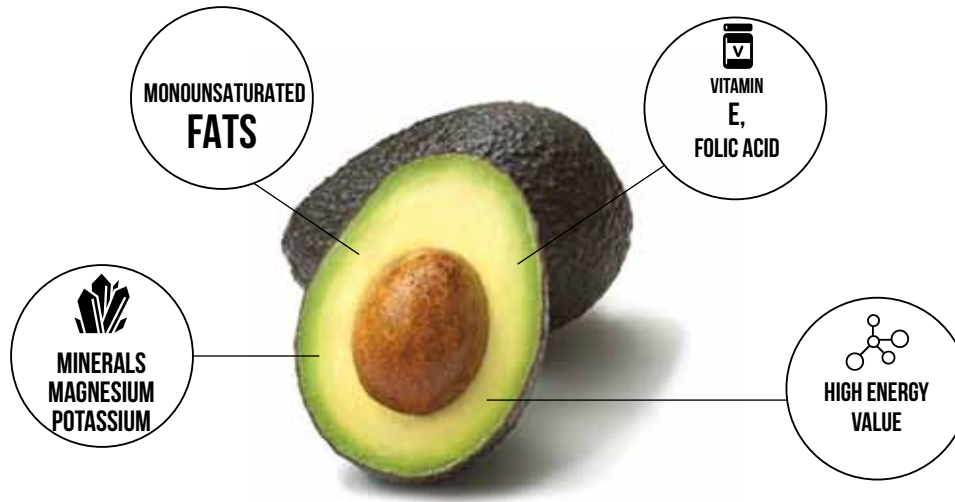
Monounsaturated fatty acids help to control blood cholesterol



Folic acid helps to keep proper blood cell functions



Vitamin E neutralizes the formation of free radicals



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



salads



soups



dressings and sauces



ice-creams



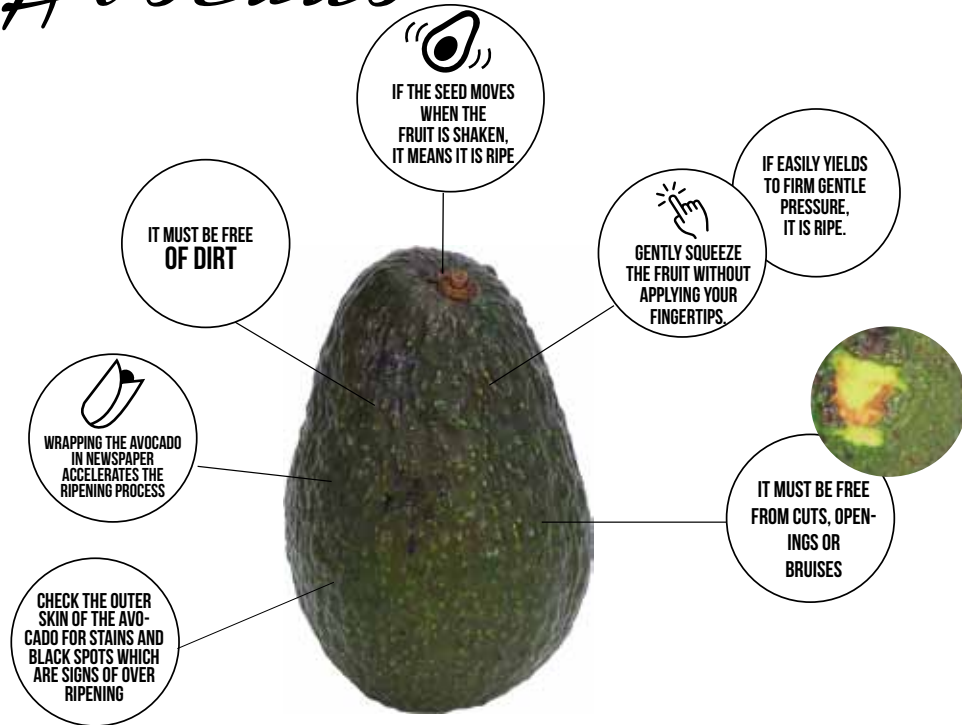
shakes



desserts

TIPS FOR SELECTING

The Avocado



IT CAN BE CONSERVED:



It becomes bitter at cooking temperature



Allow to mature at room temperature



To delay ripening put it in the fridge



Use airtight containers when put in the fridge

The avocado is easily oxidized so it must be consumed immediately after opening. Lemon might be sprayed to delay oxidation processes and airtight containers must be used.



The Lemon
(*Citrus limon*)

ABOUT

The Lemon

It is native of China, the Arabs disseminated it throughout the Mediterranean basin. Nowadays, it is grown in most tropical countries of the world.



NUTRIENTS OF THE LEMON AND HEALTH BENEFITS:



Vitamin C helps absorption of vegetable iron



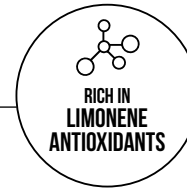
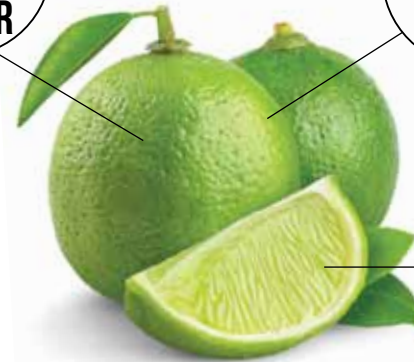
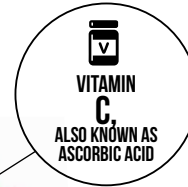
Preserves the blood vessels health and contributes to the good functioning of the immune system



Phytochemicals (limonene), antioxidants that reduce the formation of free radicals and prevent risks of some diseases



Helps in the healing processes



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Excellent flavorings



drinks



sauces and dressings



jellies and marmalades



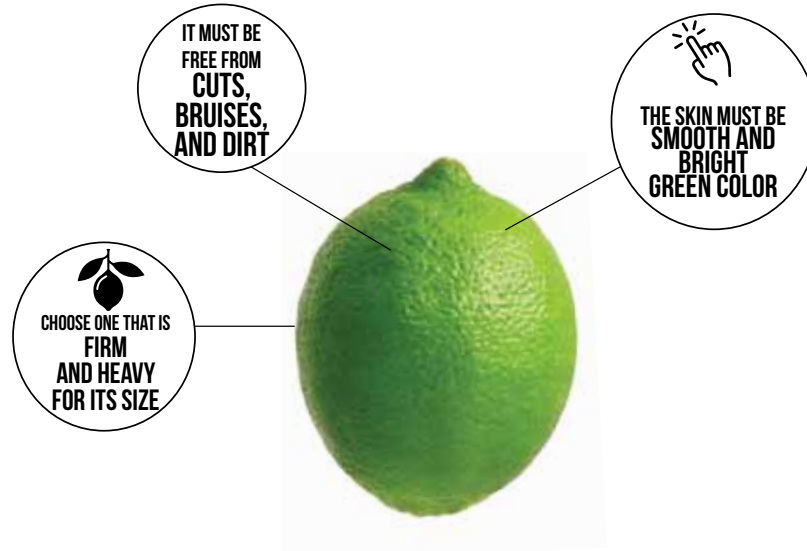
sorbets or ice-creams



desserts

TIPS FOR SELECTING

The Lemon:



IT CAN BE CONSERVED:



For several weeks at room temperature



If placed in the fridge, it can be perfectly conserved for up to one month



Lemon juice can be frozen in small cubes

Lemon can be perfectly combined with all types of fruits, lemon also enhances their flavor and protects them from the oxidation process.





Sugar-apple or Sweetsop

(*Annona squamosa*)

It is native of the Peruvian Andes and the mountains of Ecuador where it grows spontaneously; although some historians also include the Andean zones of Chile and Colombia when referring to the origins of this fruit.

When Spaniards first discovered this fruit in America, they called it “Manjar Blanco” [White Delicacy]. The Chronicle Fernández de Oviedo describes it as follows:

The anon is a good fruit, I personally prefer the anon than the guava although they are very similar fruits, others prefer the guava maybe because their taste is different from mine, or the guava gives a rough taste that is pleasant to their palate, or simply because they have a better ability to differentiate between these flavors. It is true that I have preferred fruits compared to meats and other delicatessens. The inside of the anon is not as watery as that of the guava, it is thicker, and that is the edible part of fruit, delicate and delicious, or as I said, this is the best part of the fruit”.

(Olaya, Clara Inés. *Frutas de América Tropical y Subtropical. Historia y Usos*. Editorial Norma. Colombia 1998. p. 57-58)



ABOUT THE

Sugar-apple or Sweet sop

Also known in the Region as: Anon,
Annona, white sugar-apple, Peruvian
Annona, kidney, cherimoya

It is cultivated in the tropical and subtropical
region of Latin America, this region covers
the countries of Central America and the
Islands of the Caribbean.



NUTRIENTS OF THE SUGAR-APPLE OR SWEETSOP AND HEALTH BENEFITS:



Its high water content
helps to keep proper body
hydration



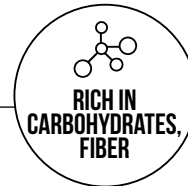
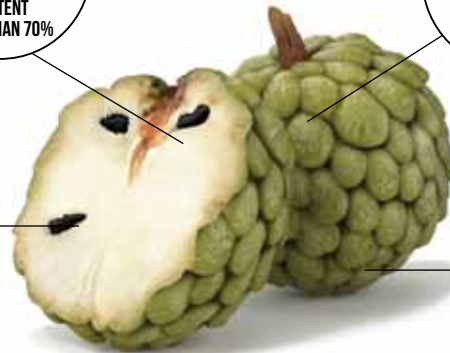
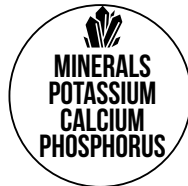
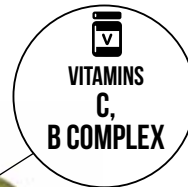
It has diuretic effects



It is an energy source



Its fiber content helps
to keep proper
bowel function



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh
fruit



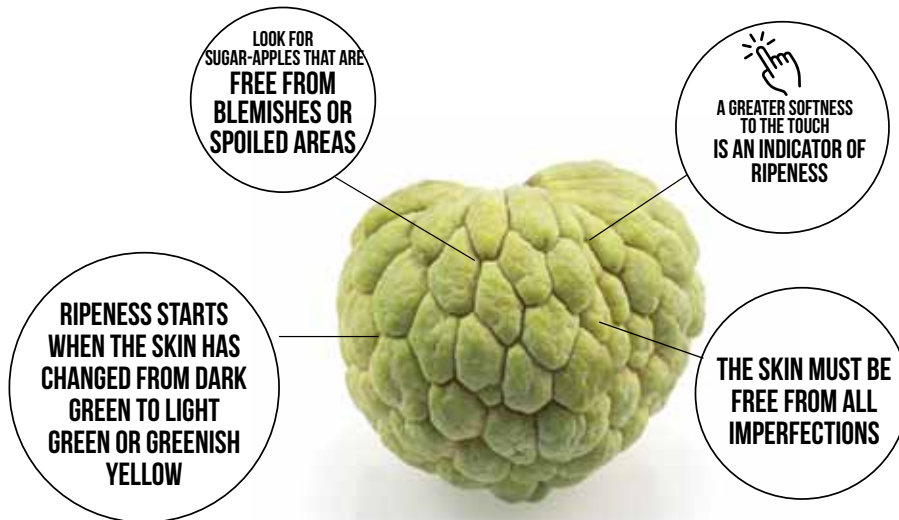
ice-creams



fruit drinks
or shakes

TIPS FOR SELECTING

Sugar-apple or Sweetsop



IT CAN BE CONSERVED:



Can be kept at room temperature for some days.



Do not put in the fridge because shading will appear in the skin and in the pulp.

To prevent sugar-apple or sweetsop from quickly ripening, it must be acquired when is still green and let it ripen at room temperature for a few days.



20 FRUITS FROM THE REGION: THE COCONUT



The Coconut

(Cocos nucifera L.)

ABOUT

The Coconut

It is native of Malaysia and the Indo-Pacific zone. Nowadays, it has spread and naturalized throughout the tropical coasts all over the world.



NUTRIENTS OF THE COCONUT AND HEALTH BENEFITS:



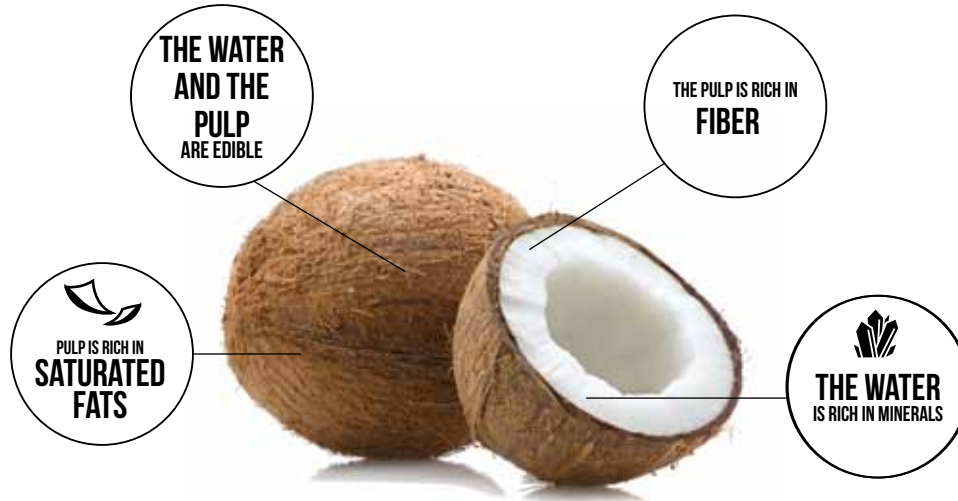
Coconut water calms the thirst



Its pulp is high in fiber content, so it helps keep proper bowel function.



Due to its mineral content, the coconut water is ideal for hydration purposes



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Coconut water



fresh pulp or shredded



coconut milk



drinks



desserts



ice-creams



soups



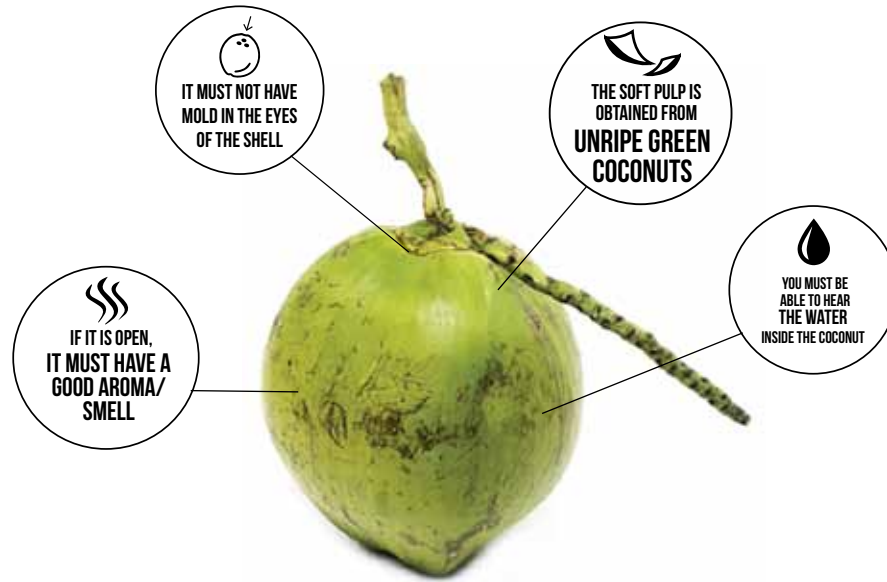
bread



rice

TIPS FOR SELECTING

The Coconut



IT CAN BE CONSERVED:



A fresh coconut can be conserved for long periods without fridge.



Once the coconut is open, it must be conserved in the fridge.





The Banana
(*Musa acuminata*, *Musa sapientum*)

ABOUT

The Banana

Also known in the region as: Plantain, banana, cambur or guineo

It is native of India. Nowadays, it is cultivated in most tropical countries all over the world.



NUTRIENTS OF THE BANANA AND HEALTH BENEFITS:



Due to its potassium content, it is recommended to athletes



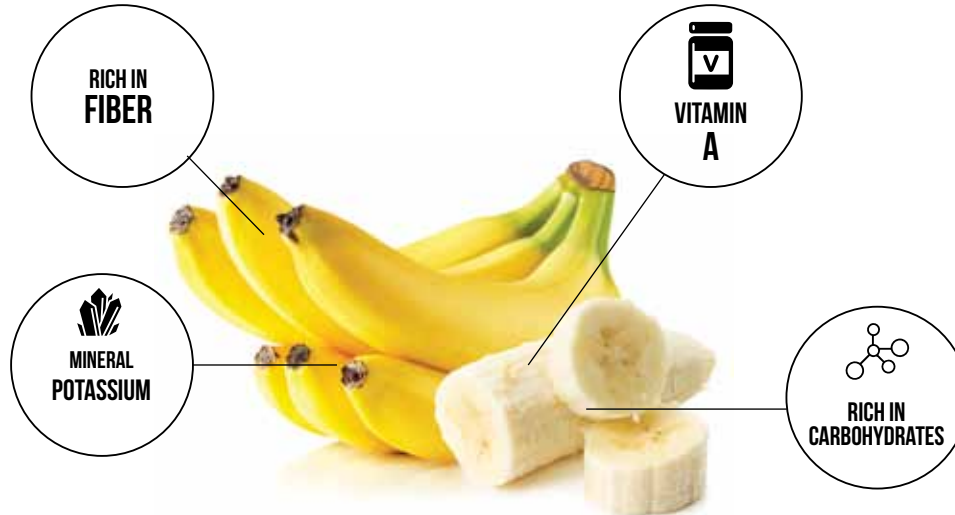
Its fiber content helps to keep proper bowel function



It is one of the favorite fruits among children and adults and it provides a great feeling of satiety



It is the energy fruit per excellence



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



shakes



compotes



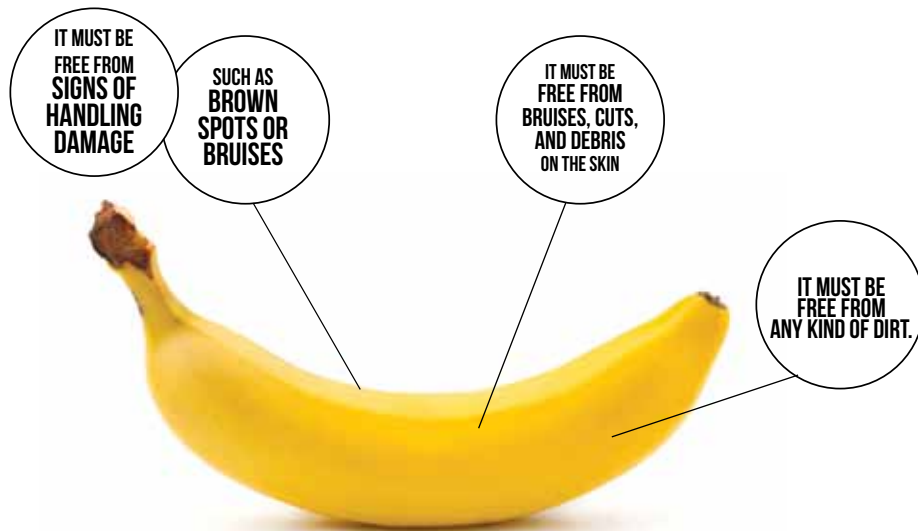
ice-creams



desserts

TIPS FOR SELECTING

The Banana



IT CAN BE CONSERVED:



It must be kept in a dry and fresh place.



Protected from direct sunlight.

The banana has a delicious sweet flavor and it is easy to eat at any moment and place. It has a pulp with soft and compact texture.





Passion Fruit

(*Passiflora edulis*)

The Spanish Jesuits baptized this fruit with the name of “Fruta de la Pasión” [Passion Fruit] when they saw that each part of the flower had a symbolic meaning in recognition of the Passion of Christ (the Crucifixion Story).

Spanish Chronicles told that in the American forests they have seen some wonderful flowers that hung from large lianas and from these fruits bloomed... “The fruits have a tough and glassy outer shell (rind), once open they are like suede in the inside, they are full of seeds with sweet fleshiness, delicate and aromatic, and since they have a thick delicate juice they are drunk in sips”; due to its round shape and the large amount of seeds, this fruit was associated with the Spanish pomegranate and therefore was called Granadilla. The shape, color, and grace of these flowers hypnotized the Spanish conquistadors. In the XVI century the Spanish Catholic Missionaries, with their deep Christian perspective and thoughts, associated the elements of this flower with the Christ Crucifixion Story: the red and purple colors represented those of the Holly Week, the floral crown represented Christ’s crown of thorns, the three stigma represented the nails that held Christ to the cross, the five anthers represented the five sacred wounds, the tendrils of the flower are like the whips, and the round fruit represented the world Christ came to redeem. From this comes the name of Passion Fruits or Pasionarias. The Chronicle Bernabé Cobo describes the spirit of that time period as follows:

“This flower is for us to appreciate, it has a weird and wonderful shape, lucky those who can contemplate it with respect, appreciation and devotion; if you do so, you can find in this lots of the figurative insignia for the Passion of Christ, Our Redeemer”

(Olaya, Clara Inés. *Frutas de América Tropical y Subtropical. Historia y Usos.* Editorial Norma. Colombia 1998. p. 28, p. 31)



ABOUT THE

Passion Fruit

Also known in the Region as: Calala, parchita, yellow granadilla, granadilla, chinola, mburucuyá, pasionaria, or passion fruit

It is native of Brazil and it is produced in tropical climates.



NUTRIENTS OF THE PASSION FRUIT AND HEALTH BENEFITS:



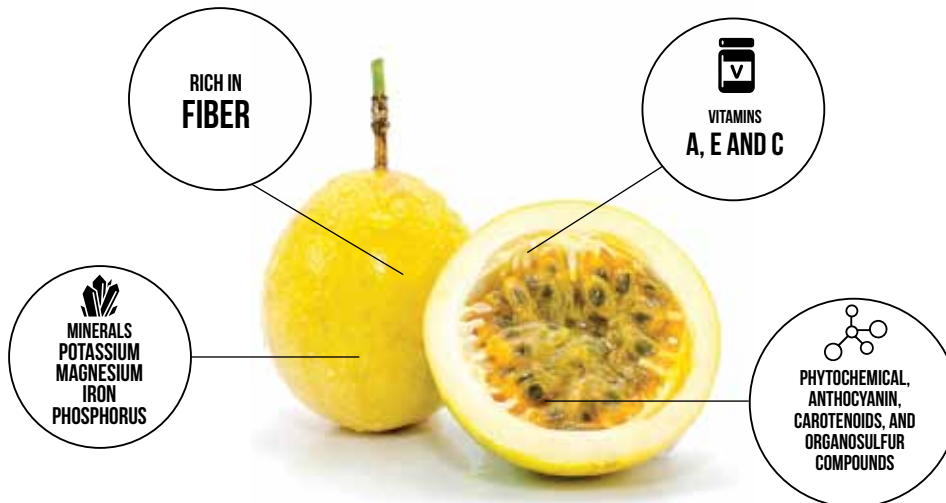
Its high fiber content helps to keep proper bowel function.



Its high antioxidant content helps to prevent cell damage.



Its vitamin C content helps to keep proper immune system functions.



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



juices or shakes



jelly



sorbets



desserts



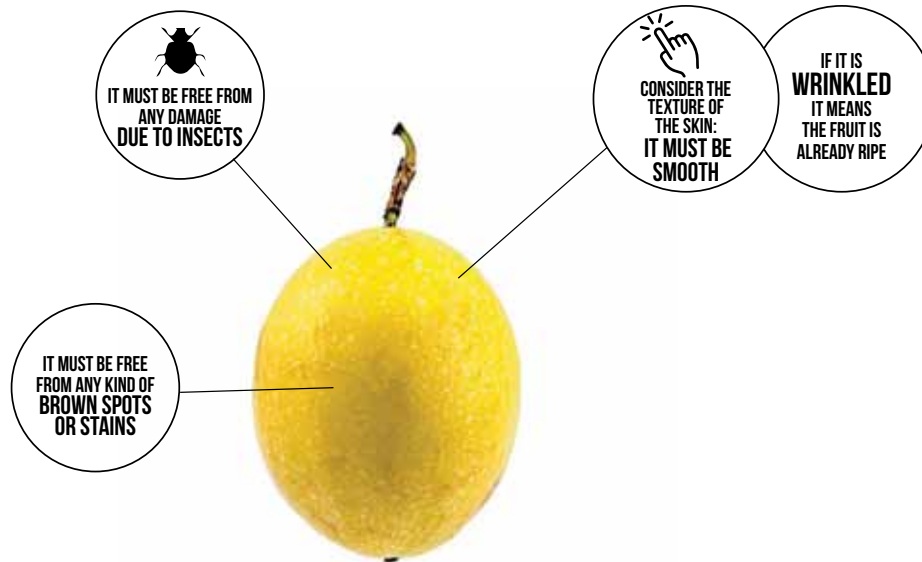
sauces



cocktails or punch

TIPS FOR SELECTING

The Passion Fruit



IT CAN BE CONSERVED:



The fruit can be kept at room temperature to allow for ripening and for the flavor to become mild and sweeter.



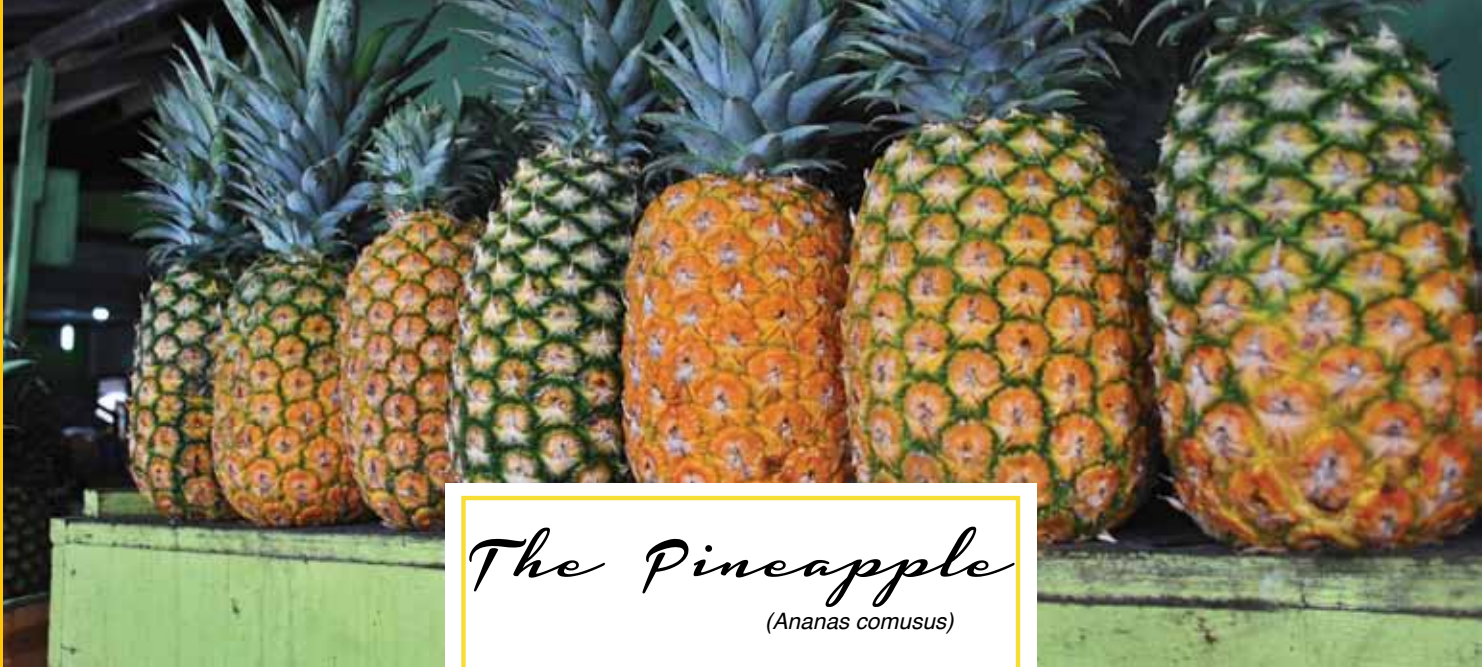
Once it is ripe, it can be kept in the fridge.



It can be frozen in small whole pieces or by extracting its pulp so it will last longer.

Ripe fruits must be consumed as soon as possible.





The Pineapple

(*Ananas comusus*)

Named *ananás*, which in Guaraní language means “excellent fruit “; for pre-Columbian towns this fruit was part of their daily lives, they carefully cultivated it, they knew about its medicinal properties, and they made wine and *chicha* from this fruit, and the fruit accompanied the dead in their long journeys to eternity. When Christopher Columbus arrived in the New World, the natives offered this fruit to him as a symbol of their welcome and hospitality. Spaniards recorded that this new fruit had an exterior like the cone of the European pine and a firm interior pulp like an apple, and since they wanted to baptized anything unknown found along their voyage they called it pineapple.

The Chronicle Fernández de Oviedo describes the pineapple as follows:

“These things from the New Spain are so big and easy to disperse and grow, they are new and important, and diverted and pilgrims ...” “The pineapple is one of the most beautiful fruits I have ever seen in all places I had been. It is pleasant to the sight, it has a soft aroma, an excellent flavor, and among all fruits it has the best smell and has such a great flavor. This fruit awakens the appetite, but it poses a problem, after eating pineapple drinking wine does not taste good” ... “Each pineapple comes from a rough and thorny plant that grows in the wild, there is a round stem that emerges from the plant, and you get one pineapple per plant. It takes from 10 months to one year to mature and once it is cut-out it does not produce another fruit. But if the top of a pineapple is placed two to three fingers deep into the soil and covered up, then you will get another pineapple”.

(Olaya, Clara Inés. *Frutas de América Tropical y Subtropical. Historia y Usos*. Editorial Norma. Colombia 1998. P 65-66)



ABOUT

The Pineapple

Also known in the Region as: Anana

Nowadays it is cultivated in most tropical countries all around the world.



NUTRIENTS OF THE PINEAPPLE AND HEALTH BENEFITS:



It contains an enzyme complex which helps to keep proper bowel function.



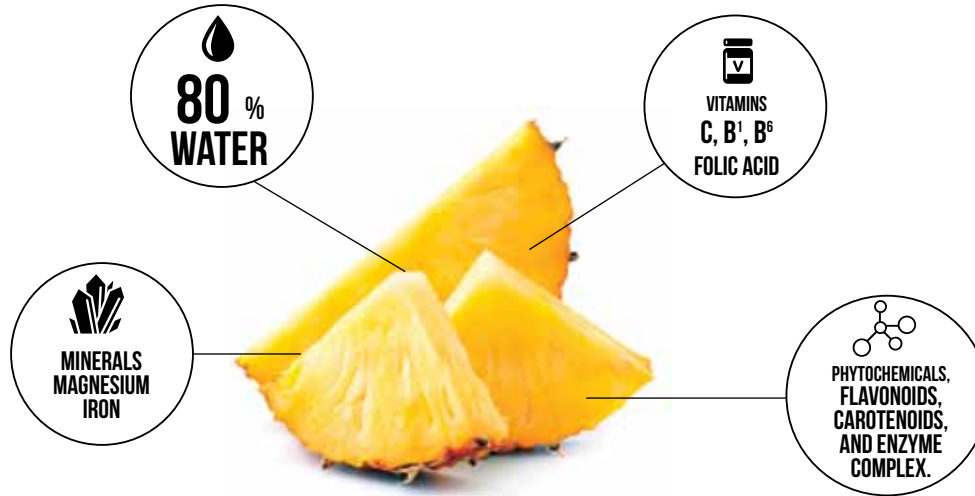
Its vitamin C content helps to prevent several diseases.



Its high water and potassium content helps to refresh and hydrate.



It helps the absorption of vegetal iron.



THE FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



juices



salads



sauces and dressings



jelly



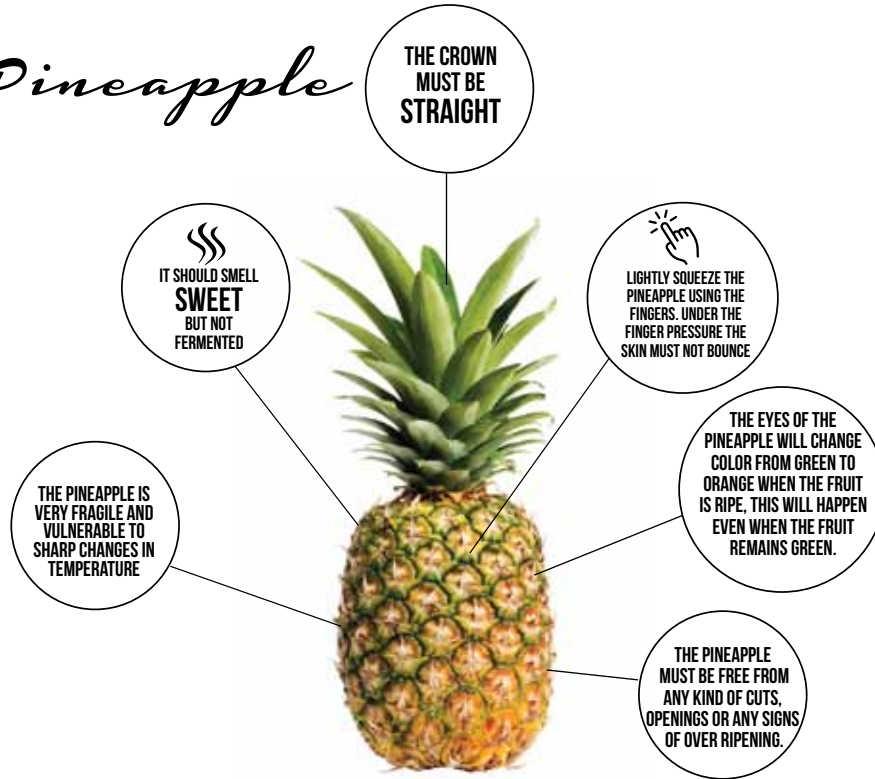
sorbets



desserts

TIPS FOR SELECTING

The Pineapple



IT CAN BE CONSERVED:



Can be conserved for a few days in a fresh and dry place, but never inside the fridge.



Once it is peeled and cut, the pineapple can be conserved in an airtight container.

The fruit must be consumed as soon as possible. Once it reaches its optimum point of ripeness, it starts losing its juiciness very quickly.



Sweet Orange
(*Citrus sinensis*)

ABOUT THE

Sweet Orange

It is native of China. It is produced in any favorable climate: abundance of sun, water, and little environmental humidity.



NUTRIENTS OF THE SWEET ORANGE AND HEALTH BENEFITS:



It reduces blood cholesterol



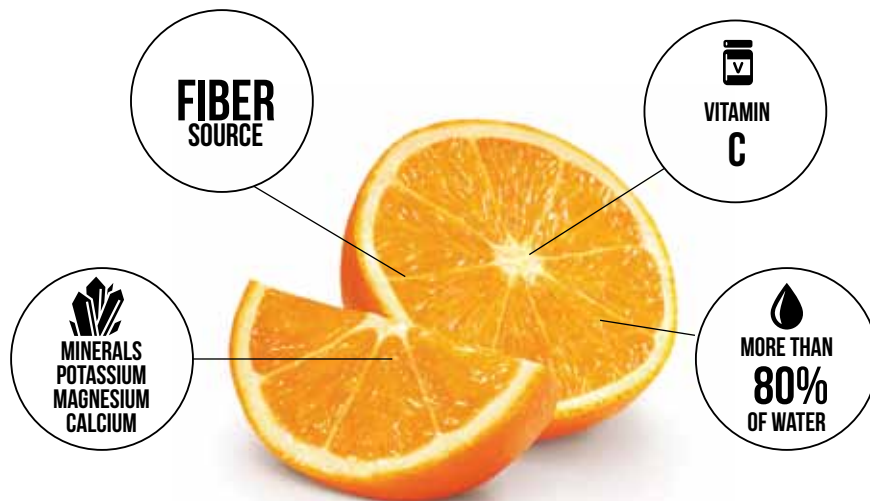
It improves the absorption of vegetable iron



It helps to keep proper immune system functions



It helps to keep healthy bowel function



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



drinks



salads



sauces for meats



Jellies or marmalades

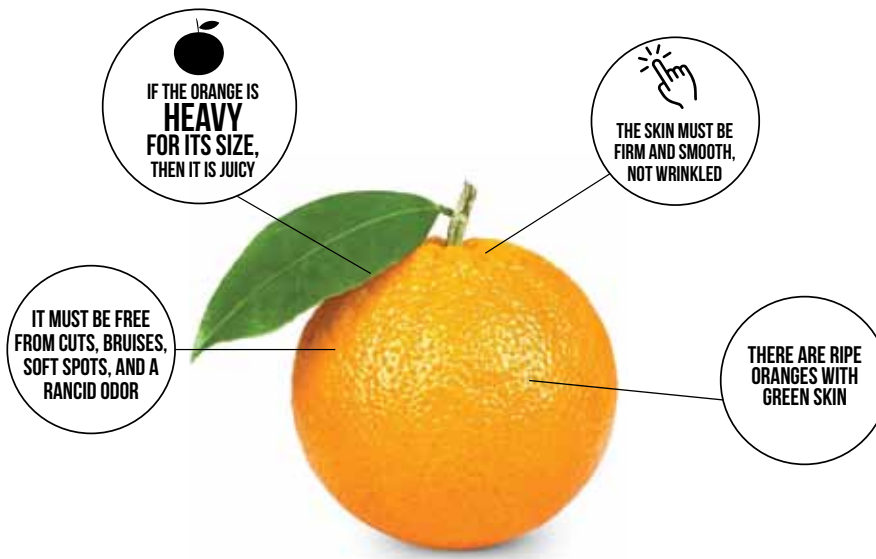


sorbets



desserts

TIPS FOR SELECTING THE *Sweet Orange*



IT CAN BE CONSERVED:



It can be left at room temperature if planning to be consumed in a short period of time



Place it in the fridge if it is consumed in longer periods of time



Orange juice can be frozen in small cubes



20 FRUITS FROM THE REGION: THE CANTALOUPE MELON



*The Cantaloupe
Melon*
(*Cucumis melo*)

ABOUT THE

Cantaloupe Melon

Christopher Columbus brought it into the American Continent. Nowadays, it is produced in warm climate with relatively low rainfall.



NUTRIENTS OF THE CANTALOUPE MELON AND HEALTH BENEFITS:



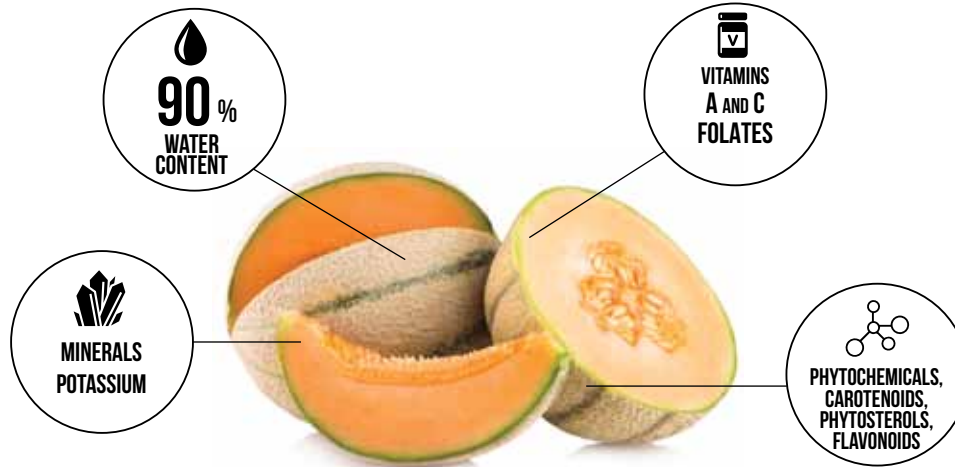
Its high water content helps to keep proper hydration of the body



Its beta-carotenoid content protects the skin and the vision



It protects against ageing and degenerative diseases



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



fruit and vegetable salads



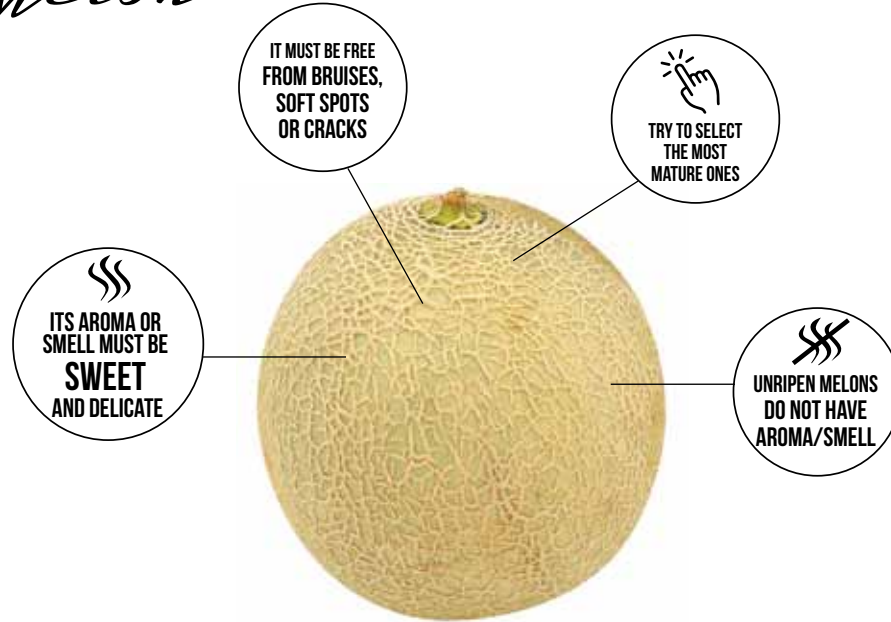
shakes



sorbets

TIPS FOR SELECTING THE

Cantaloupe Melon



IT CAN BE CONSERVED:



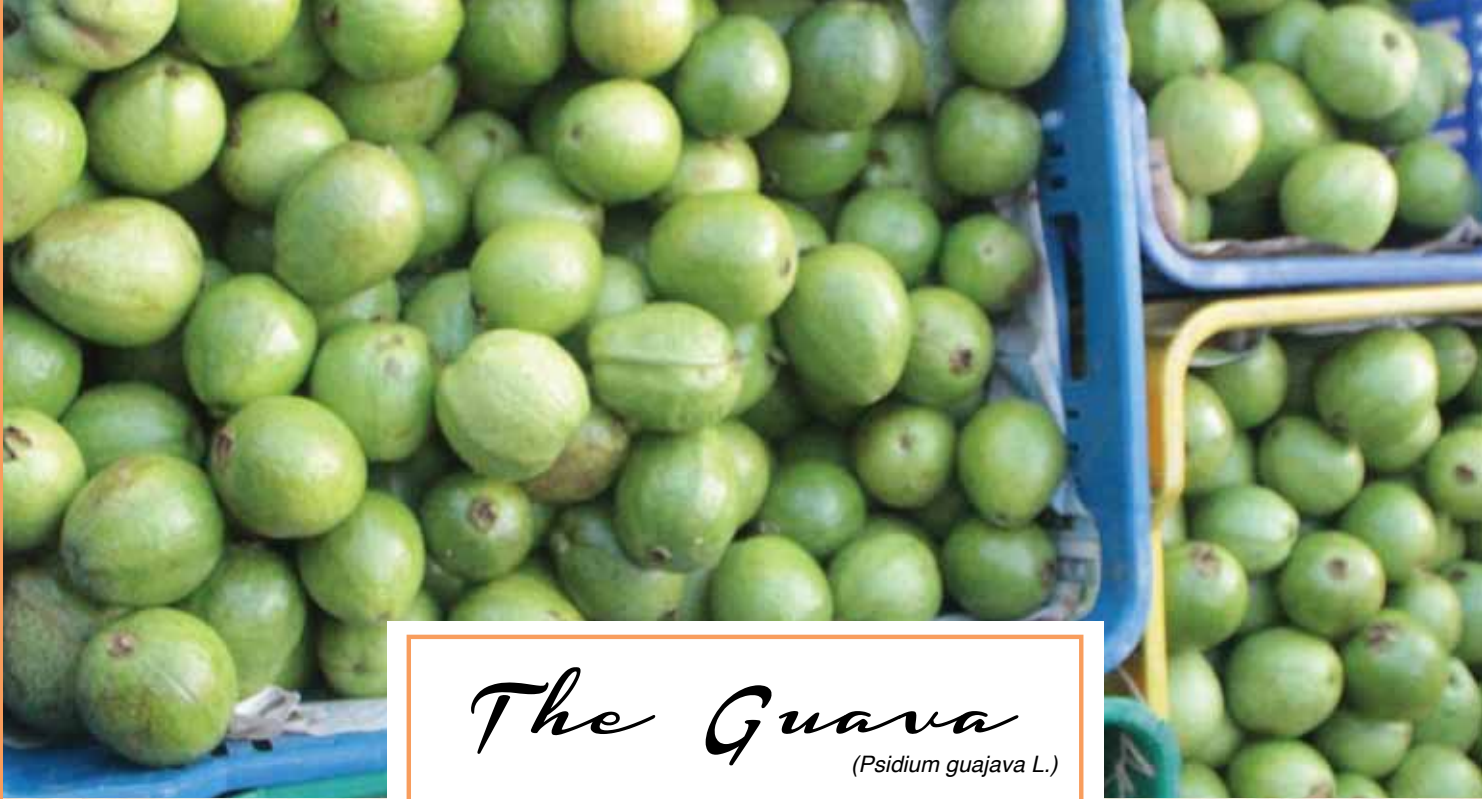
Allow to ripen at room temperature.



Keep it in the fridge in an airtight container since it gives off a strong smell and easily absorbs the flavor of other foods.

Ripe melon must be consumed as soon as possible since it deteriorates rapidly.





The Guava

(*Psidium guajava* L.)

It is a plant native of Mesoamerica and tropical America. When Spaniards arrived in America, they found it in several countries around the region.

Fernández de Oviedo describes the guava as follows:

["The guayabo is a tree appreciated by the Indians and there are lots of these trees here and in other islands, in The Main Land; this is a fruit with good flavor and aroma, the wood is also good. There are lots of these trees in the wild, but those are smaller than those carefully cultivated by the Indians... Some of these trees have a fruit that is pink in the inside, others are white; and on the outside some are green, some are yellow if allowed to over-ripe... Here you can find this fruit that is very common in this Indian place and more in some provinces than in others. You can find these trees in the wild and in the mountains, the ones found in the wild are smaller and their fruit is also smaller, but this is a good tree and provides lots of fruits if well cultivated"]

Olaya, Clara Inés. *Frutas de América Tropical y Subtropical. Historia y Usos.* Editorial Norma. Colombia 1998. p. 80-81)



ABOUT

The Guava

Also known in the Region as: Sweet guava, guayabo, guara, arrayana, and luma

Nowadays, it grows wild in tropical and subtropical areas.



NUTRIENTS OF THE GUAVA AND HEALTH BENEFIT:



It helps to keep proper bowel functioning



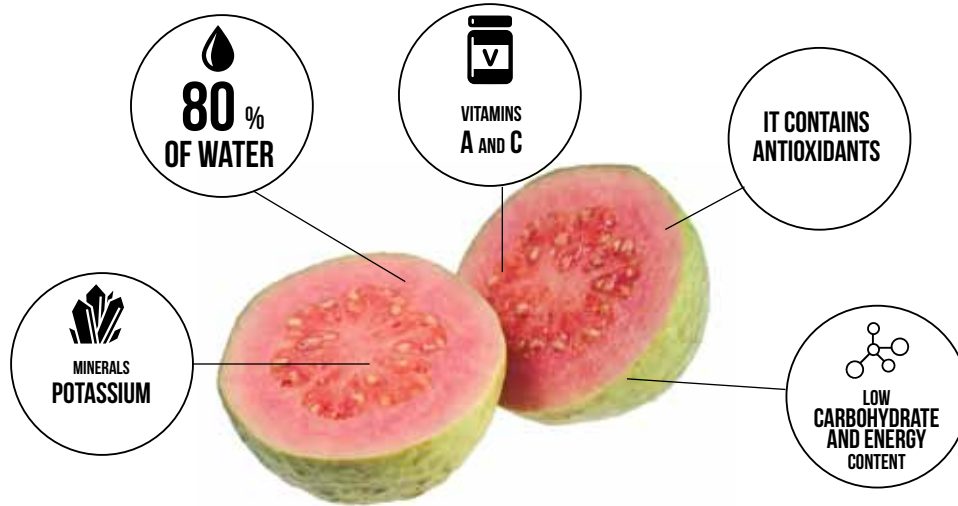
Its vitamin C content helps to prevent diseases



Its high water content refreshes and hydrates



It helps to keep cardiovascular health



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



shakes and smoothies



salads



sauces



jellies and marmalades



sorbets and ice-creams



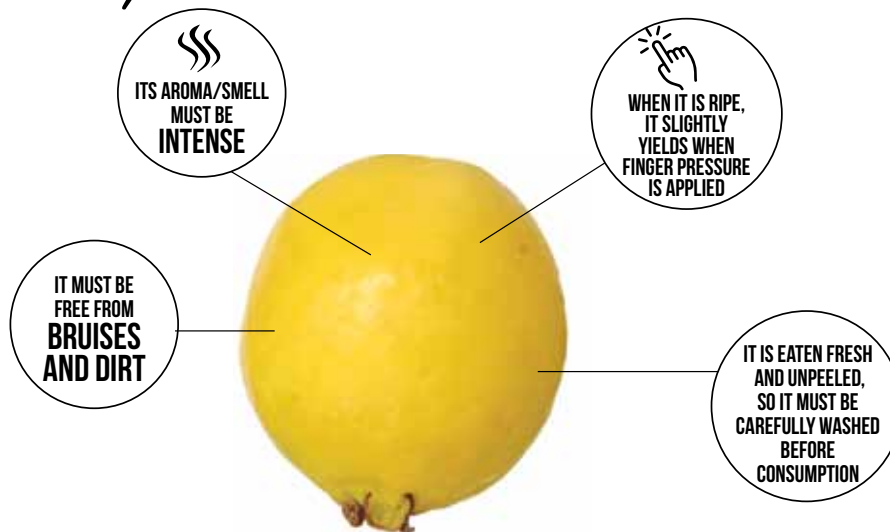
desserts



candies

TIPS FOR SELECTING

The Guava:



IT CAN BE CONSERVED:



The green guava is left at room temperature until it fully ripens



Place in the least cool spot of the fridge

Try to choose the green-yellowish color fruits that are not completely ripe but that have begun to lose firmness.



20 FRUITS FROM THE REGION: THE MANGO



The Mango
(*Mangifera indica*)

ACERCA DE

The Mango

Also known in the Region as: Manga, ambo, manglar, mangotina

It is native of India. It is known as one of the best tropical and subtropical fruits and can be grown in different varieties.



NUTRIENTS OF THE MANGO AND HEALTH BENEFITS:



It helps to maintain healthy skin and vision



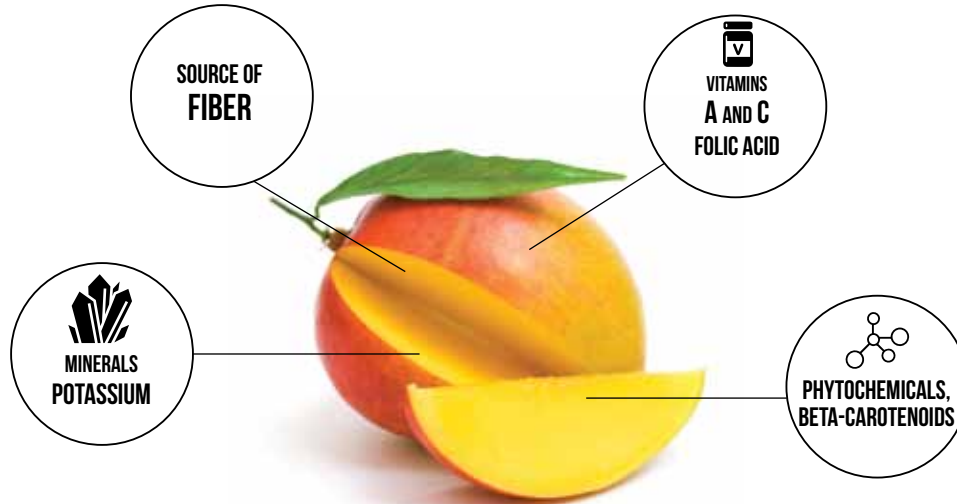
Its fiber and enzyme content helps to keep a proper bowel functioning



It helps to keep a proper immune system functioning



It prevents the risk of suffering from non-communicable diseases



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit ripe and unripe



juices



salads



sauces and dressings



marmalades



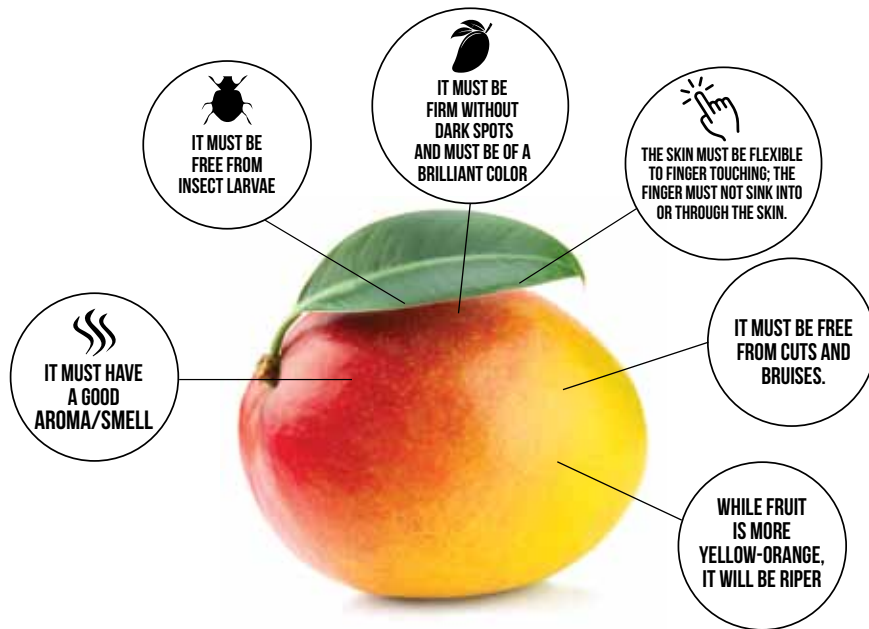
sorbets



desserts

TIPS FOR SELECTING

The Mango



IT CAN BE CONSERVED:



It can be brought unripe and allow it to ripen naturally.



Keep it in the least cool spot of the fridge.



It can be frozen in airtight containers





The Peach
(*Prunus pérsica*)

ABOUT

The Peach

It is native of China. It is considered as the symbol of longevity and immortality. Nowadays, the peach grows in warm climates.



NUTRIENTS OF THE PEACH AND HEALTH BENEFITS:



It favors hydration



It helps to keep the skin integrity



It helps to keep a proper bowel functioning



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit peeled and unpeeled



juices



salads



sauces and dressings



jellies



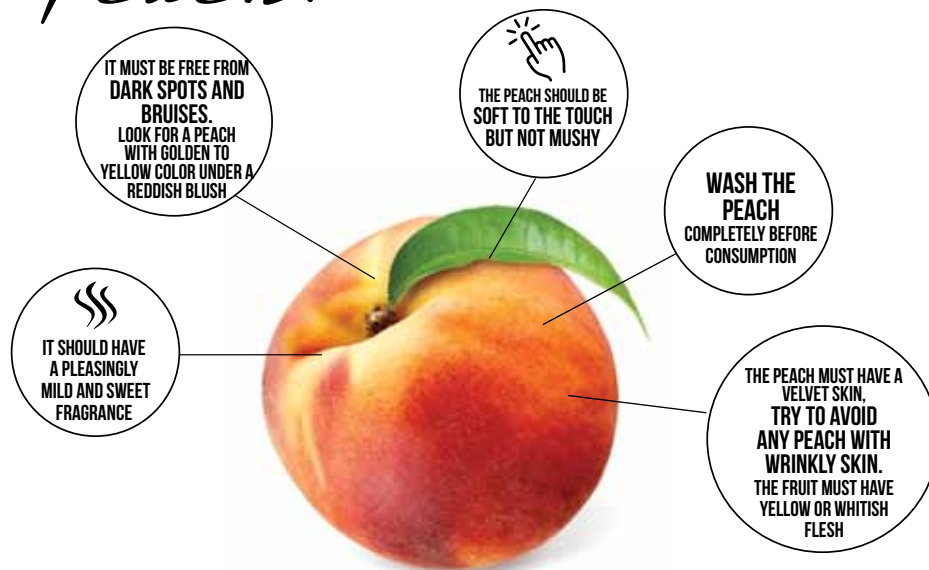
ice-creams



desserts

TIPS FOR SELECTING

The Peach:



IT CAN BE CONSERVED:



Leave firm peaches at room temperature and they will ripen within a few days.



Peaches can be conserved in the fridge for a few days after purchase.

Unripe fruits mature at room temperature. If they are placed in the fridge for long periods of time, they will lose their flavor and aroma.





*The Mandarin
Orange*
(*Citrus reticulata*)

ABOUT THE

Mandarin Orange

The citric fruits come from the East: China and India. From here, they were extended all over the world. Nowadays, these are produced in tropical climates.



NUTRIENTS OF THE MANDARIN ORANGE AND HEALTH BENEFITS:



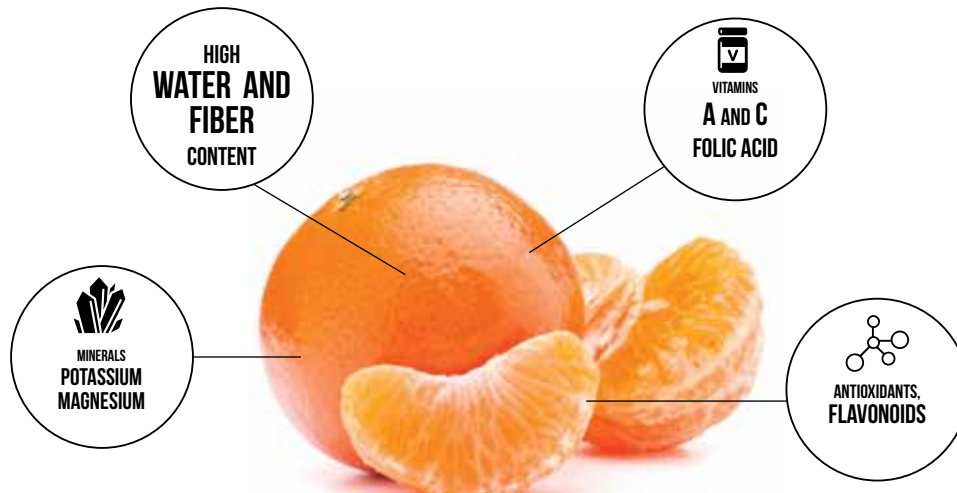
Its high water content helps to keep proper hydration.



Its Vitamin A content helps to protect the skin and the vision.



It helps to keep proper bowel function.



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



juices



salads



marmalades



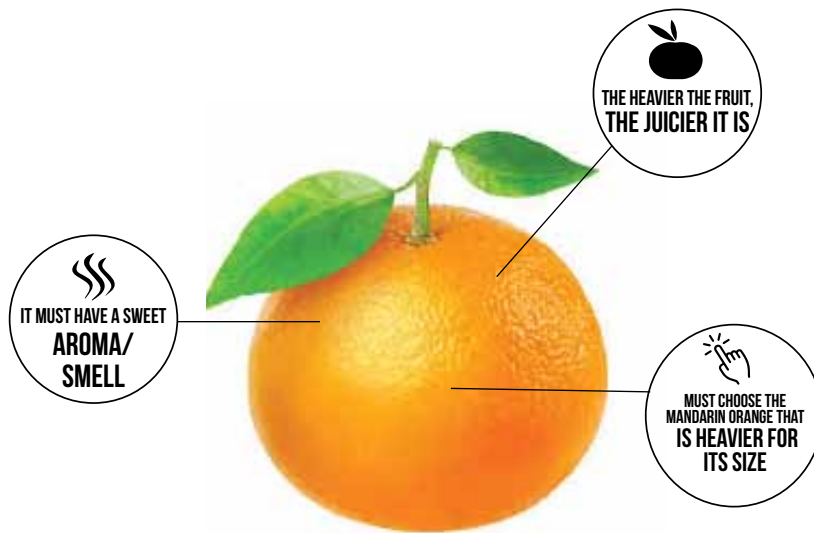
ice-creams



desserts

TIPS FOR SELECTING

Mandarin Orange :



THIS CAN BE CONSERVED:



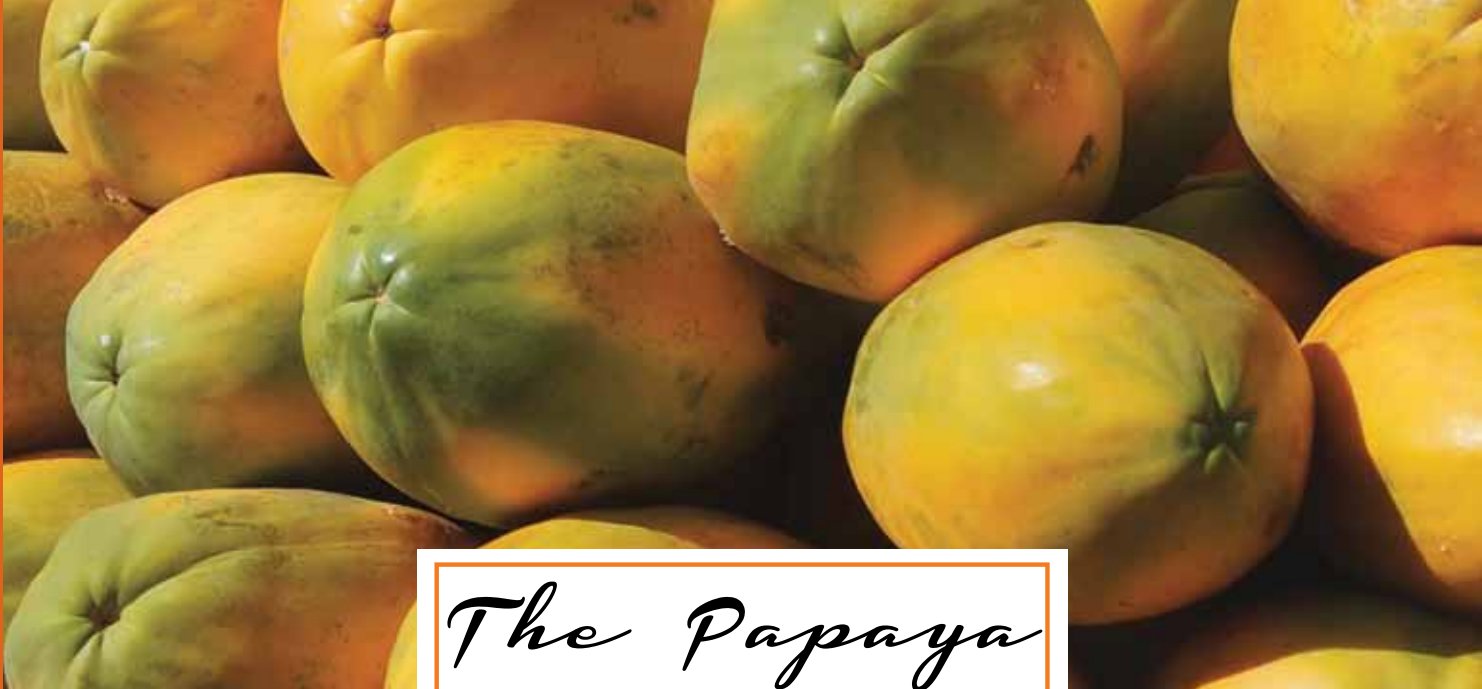
It can be conserved at room temperature or in the least cool spot of the fridge.



The juice of the mandarin orange can be frozen in small cubes.

Its aroma/smell is the best indicator of quality, it becomes sweeter and stronger as the mandarin orange ripens.





The Papaya

(*Carica papaya*)

It is native of Central America and was exported in the XVI Century to the Old Continent by the Spanish and Portuguese Settlers.

Gonzalo Fernández de Oviedo uses the following terms to describe the papaya:

"There are tall and straight stems without leaves, the stems are usually unbranched. The spirally arranged leaves are confined to the top of the stems, these leaves are wider the leaves from the tree of Castilla: and the fruits they have are as big as melons... some are as big as medium-sized pots... and these fruits grow from the branches (I mean leaves), they grow towards the ground and are attached to the top of the stems... These fruits mature in the tree, but not all together, one by one; some are mature and yellow while the others are green and hard. Some of these fruits are round and others are elongated; the trees with round fruits do not produce elongated fruits and the trees with elongated fruits do not produce round fruits because they are from different varieties... the fruit has a good flavor and can be cut in slices like a melon, there are seeds in the middle of this fruit which are small and black and are coated with some kind of material".

(Olaya, Clara Inés. *Frutas de América Tropical y Subtropical. Historia y Usos.* Editorial Norma. Colombia 1998. p. 42-43)



ABOUT

The Papaya

Also known in the Region as: papaya, mamon, lechosa or the bomb fruit

Nowadays, it is produced in tropical and subtropical climates.



NUTRIENTS OF THE PAPAYA AND HEALTH BENEFITS:



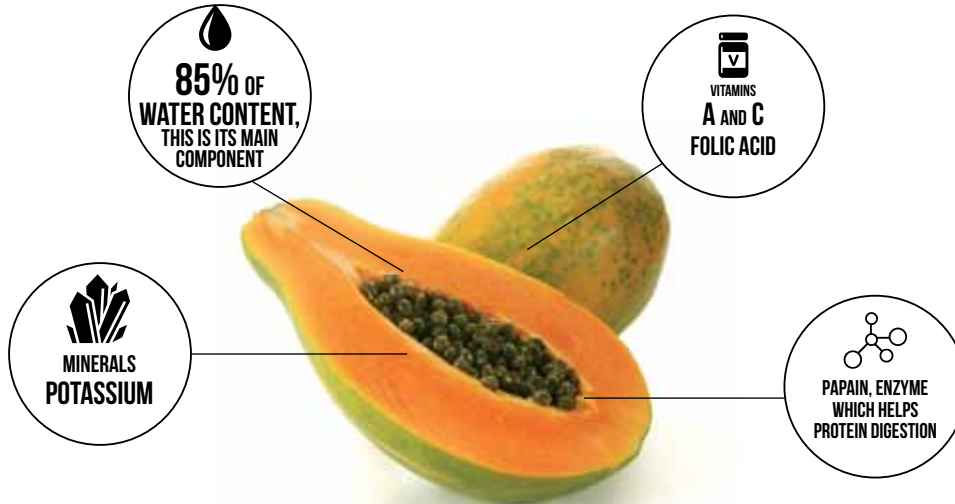
It contains papain which helps protein digestion



It helps to keep skin and vision health



Its high water content helps to keep a proper hydration



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



shakes



salads



jellies



desserts



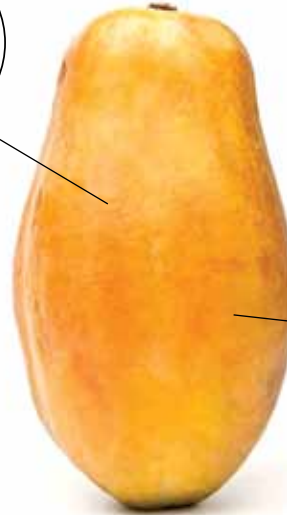
candies

TIPS FOR SELECTING

The Papaya:



IT MUST BE
FIRM AND FREE FROM
CUTS AND BRUISES



PAPAYA STARTS
TO RIPEN
WHEN BRIGHT
YELLOW HUES
APPEAR

IT CAN BE CONSERVED:



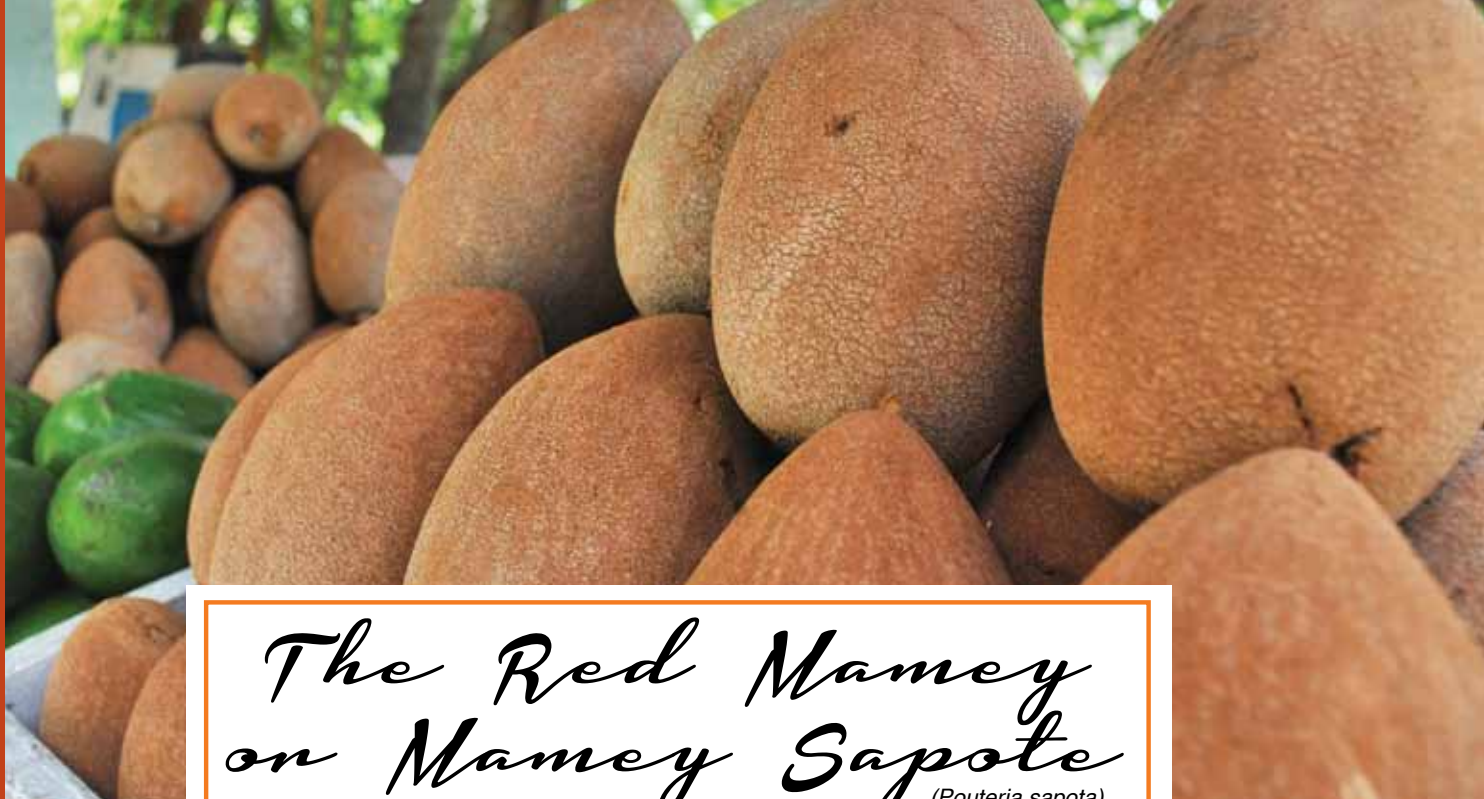
Allow to ripen at room temperature.



If it is ripe, keep it in the fridge.

Due to its soft and thin skin, the papaya is a perishable and fragile fruit; therefore, it must be carefully handled.





The Red Mamey or Mamey Sapote (*Pouteria sapota*)

It is native of Central America. In Mesoamerica it grows in the wild. The Spanish Chroniclers in Mexico described the red mamey as follows:

“they, the Lords, used to eat lots of fruits, one of these were called zapotes, reddish color in the inside (mameyes) and rough and brown in the outside” (p141).

It was also said that the Red Mamey prevented Spanish soldiers from starving to death during the conquest of Central America.

(Olaya, Clara Inés. Frutas de América Tropical y Subtropical. Historia y Usos. Editorial Norma. Colombia 1998. p. 130, 140-141).



ABOUT

The Red Mamey or Mamey Sapote

Also known in the Region as: mamey, zapoya
or earth mamey

Nowadays, its production is extended
to the Antilles and North and South
America.

NUTRIENTS OF THE RED MAMEY OR MAMEY SAPOTE AND HEALTH BENEFITS:



It provides energy



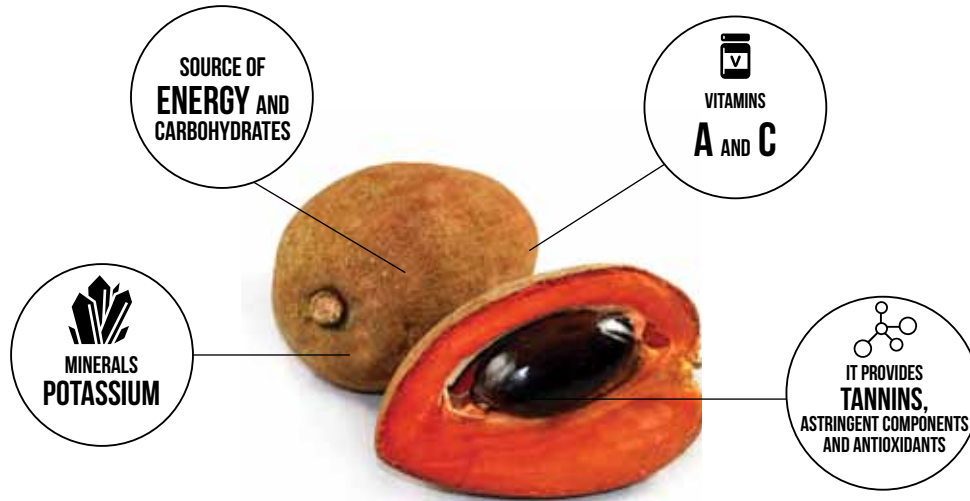
It provides overall health
benefits



It facilitates a proper diges-
tion



Its astringent characteristic
helps the wound healing
processes



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh
fruit



shakes



desserts



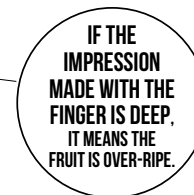
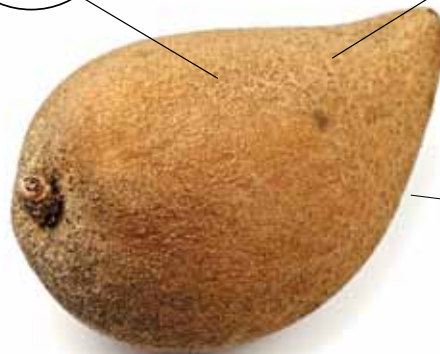
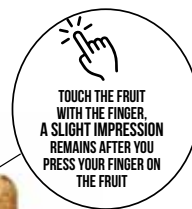
ice-creams
and sorbets



candies

TIPS FOR SELECTING

The Red Mamey on Mamey Sapote:



IT CAN BE CONSERVED:



At room temperature for short periods of time.



The dried or frozen fruit pulp has a longer shelf life.



Manipulate the fruit with care.

The Red Mamey / Mamey sapote is a very delicate fruit; therefore, it must be carefully handle.





The Apple

(Pyrus malus)

ABOUT

The Apple

The apple is cultivated all over the world; there are several varieties that differ themselves in flavor, skin color, size, and consistency.

NUTRIENTS OF THE APPLE AND HEALTH BENEFITS:



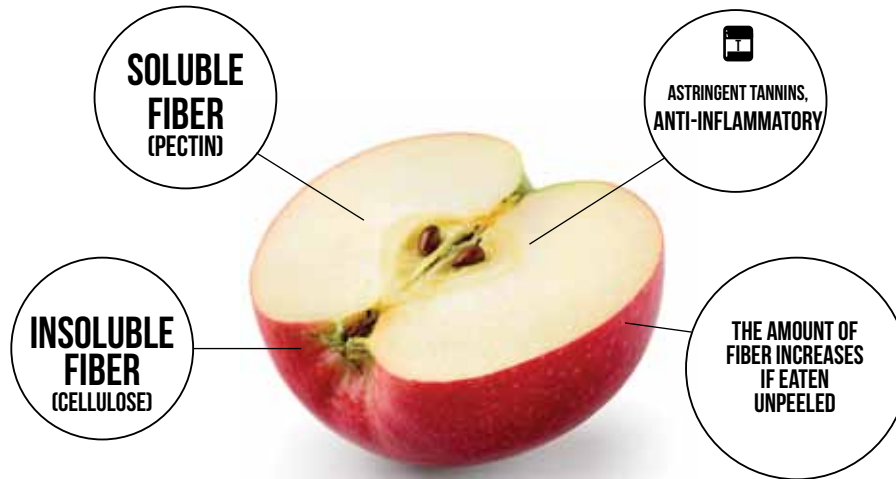
It helps reduce blood cholesterol



It facilitates a proper digestion and regulates bowel function



It provides overall health benefits



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAY:



Fresh fruit peeled or unpeeled



Juices



Salads



sauces and dressings



marmalades



desserts



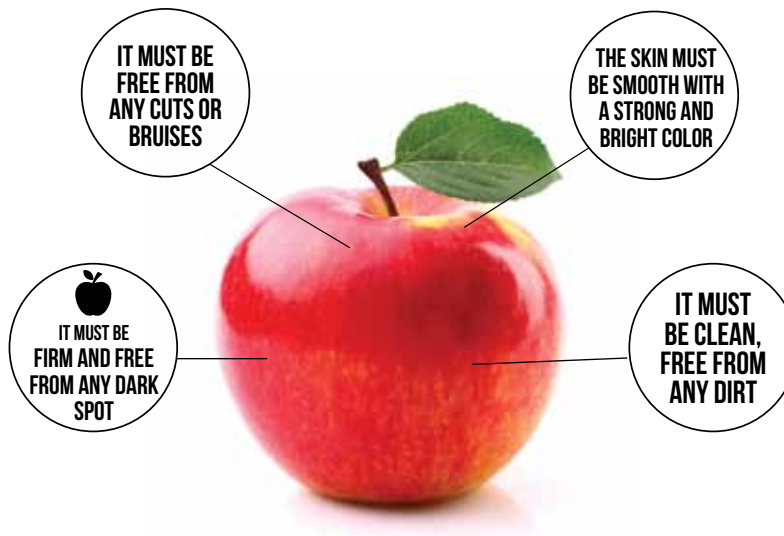
gelatins



compotes

TIPS FOR SELECTING

The Apple:



IT CAN BE CONSERVED:



It can be perfectly conserved at room temperature for several weeks



It can be perfectly conserved in the fridge for longer periods of time

If the apple is peeled and cut in pieces, it is recommended to consume it immediately or to spray it with lemon to avoid oxidation processes, then put it in an airtight container.



A close-up photograph of a basket filled with fresh, ripe strawberries. The strawberries are bright red with visible seeds and green leafy tops. The basket is a teal or light blue color with a decorative, lattice-like pattern. The background is slightly blurred, showing more strawberries and a wooden surface.

The Strawberry

(*Fragaria vesca* L.)

ABOUT THE

Strawberry

Also known in the Region as: fresones or frutillas.

It is believed to be native of North America and that birds spread the fruit through the central region of Chile. Nowadays, the strawberry grows in Europe, Asia, and America.

NUTRIENTS OF THE STRAWBERRY AND HEALTH BENEFITS:



It has a diuretic effect



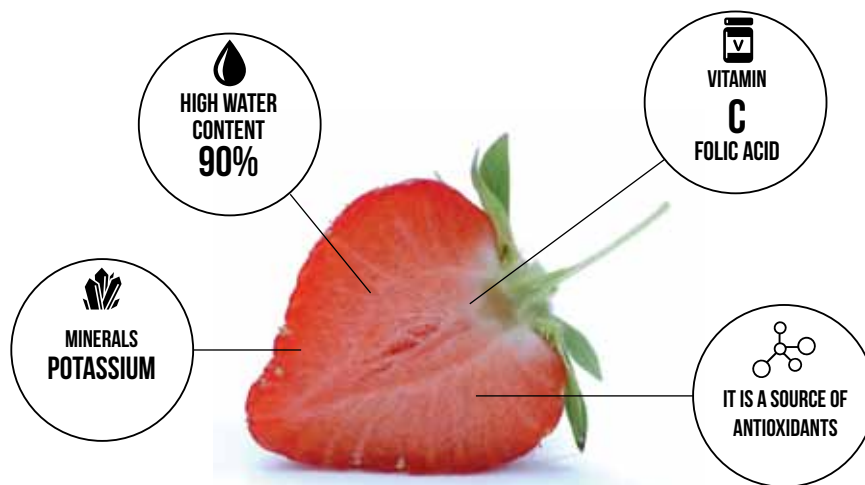
Its antioxidant effect counteracts the formation of free radicals



It helps the immune system



Due to its potassium content, it is recommended for athletes



ESTA FRUTA SE CONSUME EN FORMA DE:



Fresh fruit



drinks and shakes



salads



sauces



sorbets



jellies



desserts

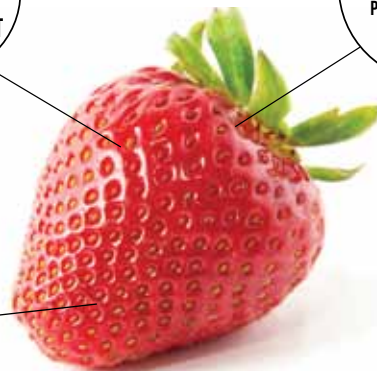
TIPS FOR SELECTING

the Strawberry:

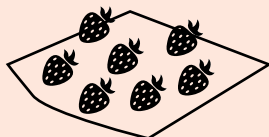
IT MUST BE FIRM,
NON-BLEMISHED,
AND FREE FROM
BUMPS AND DIRT

DO NOT BE
INFLUENCED BY THE
LIGHT COLOR
AT THE END OF THE
PEDUNCLE OR STALK.
THIS APPEARANCE
DEPENDS ON THE
VARIETY

LOOK FOR
A BRIGHT
STRAWBERRY
THAT SHOWS A
BRILLIANT COLOR AND
A FRESH APPEARANCE



THIS FRUIT CAN BE CONSERVED:



Place strawberries as far separated as possible one from another, on a piece of absorbent paper without taking away their stem.



Do not expose to heat.



They can be conserved in the fridge for 4-5 days.

An appropriate disinfection of strawberries must be guaranteed before consumption.



20 FRUITS FROM THE REGION: THE WATERMELON



The Watermelon

(*Citrullus lanatus*)

ABOUT THE

Watermelon

It is considered to be native of the tropical Africa. Nowadays, it is cultivated all over the world.

NUTRIENTS OF THE WATERMELON AND HEALTH BENEFITS:



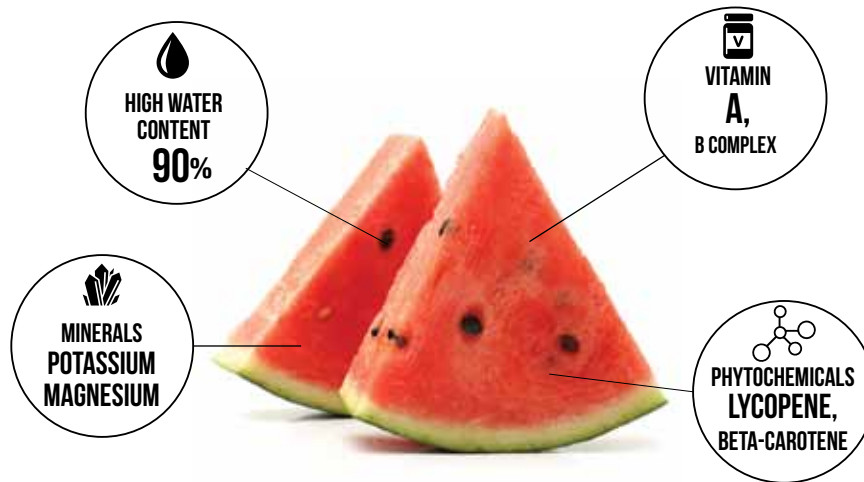
It is a hydrating fruit



Watermelon contains high levels of lycopene so it helps prevent cell ageing



It has a low energy content



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



juices



salads



sorbets and ice-creams

TIPS FOR SELECTING

The Watermelon:



IT CAN BE CONSERVED:



At room temperature.



Once the watermelon is opened, it must be kept in the fridge.





The Plum
(*Prunus domestica* L.)

ABOUT

The Plum

It is believed to be native of Persia. Nowadays, it is preferably cultivated in warm climates, but it develops well in relatively cold weather under controlled conditions.



NUTRIENTS OF THE PLUM AND HEALTH BENEFITS:



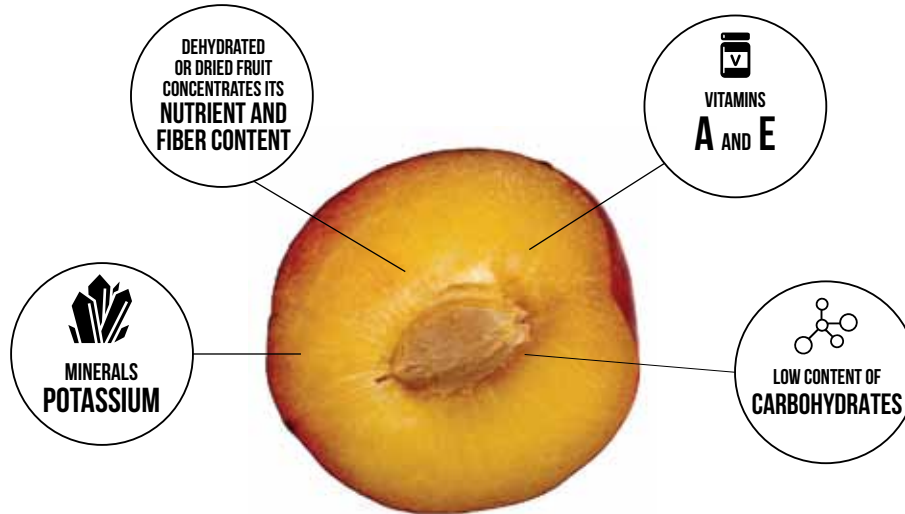
It helps improve bowel function, especially if consumed dried



It is a source of potassium



It provides energy



THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Fresh fruit



dehydrated



drinks



salads



sauces



desserts



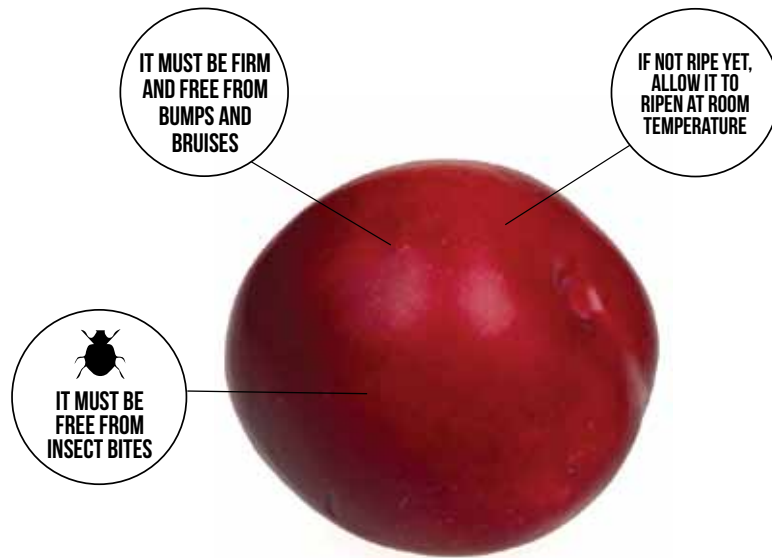
sorbets



marmalades

TIPS FOR SELECTING

The Plum:



IT CAN BE CONSERVED:



At room temperature they can last for 2-3 days.



They must be placed in the fridge.

Before consumption, plums must be washed appropriately since they are normally eaten unpeeled.



The Tamarind

(Tamarindus indica)

ABOUT

The Tamarind

Nowadays, it is cultivated in all tropical and subtropical climates.



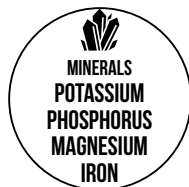
NUTRIENTS OF THE TAMARIND AND HEALTH BENEFIT:



It helps maintain proper hydration levels by providing an electrolyte balance



It acts like a gentle laxative, its fiber content helps digestion



MINERALS
POTASSIUM
PHOSPHORUS
MAGNESIUM
IRON



HIGH FIBER
CONTENT

THIS FRUIT IS CONSUMED IN THE FOLLOWING WAYS:



Pulp



drinks



salads



sauces
(Worcestershire)
and meat
seasoning



desserts



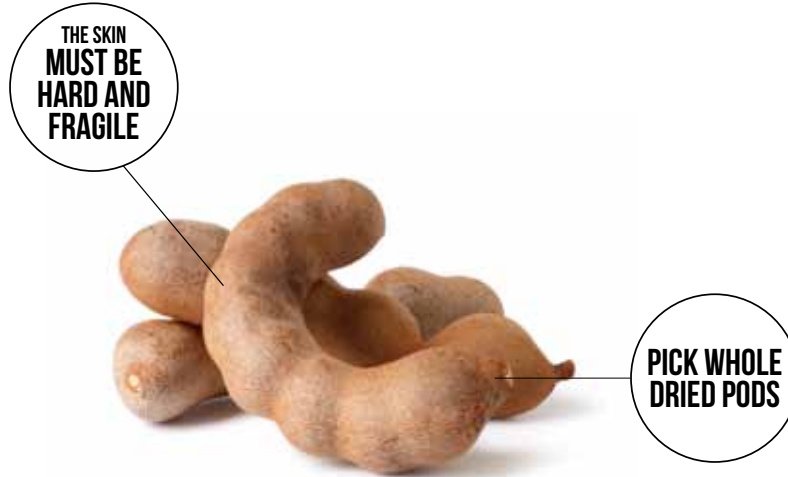
ice-creams



candies

TIPS FOR SELECTING

The Tamarind:



IT CAN BE CONSERVED:



At room temperature
for long periods



The pulp can be conserved in the
fridge and can be frozen

Its distinctive flavor will give any dish an exotic and daring touch.



V. FRUITS
delight





Homemade fresh fruits salad

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
1	Unit	Apple
15	Unit	Strawberry
1	Unit	Papaya
1	Unit	Mandarin orange
½	Unit	Lemon
2	Tablespoon	Sugar

INSTRUCTIONS

1. Wash and disinfect, as appropriate, each fruit.
2. Peel the apples and the papaya.
3. Chop the apples, papaya, and strawberries into medium-sized pieces.
4. Squeeze the juice of the lemon and the mandarin orange.
5. Add sugar, as desired.

COOKING TOOLS

Amount	Type of Tool
1	Medium-sized mixing bowl
1	Paring knife
1	Chopping board
1	Spoon
1	Wooden Spoon

NUTRITIONAL VALUE PER SERVING:
139 CALORIES

Feel free to use any kind of fruit of your choice or use them depending on the harvest season.

Preparation in which small pieces of fruits are well mixed to combine with their own natural juices or other natural juices. Ideal choice to serve like a nutritious snack or dessert.

Modified from:

<https://cookpad.com/gt/recetas/117618-ensalada-frutas-fresca-casera>



Fruit salad with yogurt dressing and honey

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
1	Small Unit	Papaya
1 ¼	Cup	Watermelon
1	Unit	Mango
1	Cup	Cantaloupe Melon
2	Units	Banana
8	Units	Strawberry
1	Small Unit	Pineapple
¾	Cup	Natural Yogurt
5	Teaspoons	Honey
	Leaves	Mint

INSTRUCTIONS

1. Wash and disinfect, as appropriate, each fruit. Peel them.
2. Chop the fruits in medium-sized pieces and place them in a mixing bowl.
3. Mix well to combine the yogurt with the honey and add to the above preparation.
4. Garnish the preparation with the strawberries and the mint leaves.

COOKING TOOLS

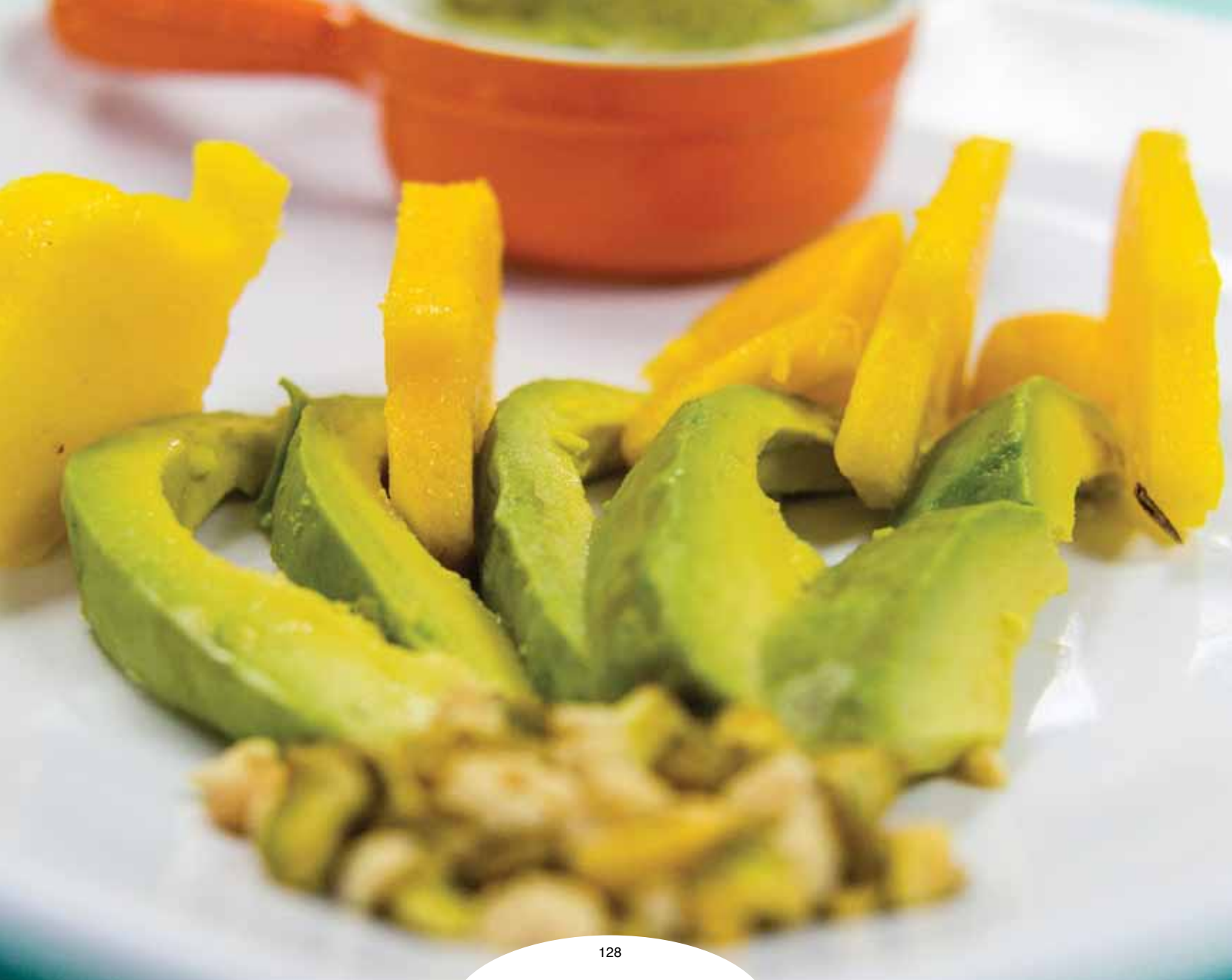
Amount	Type of Tool
1	Medium-sized mixing bowl
1	Paring knife
1	Chopping Board
1	Tablespoon
1	Wooden Spoon

NUTRITIONAL VALUE PER SERVING:
311 CALORIES

Preparation in which small pieces of fruits are well mixed to combine with their own natural juices or other natural juices. Ideal choice to serve like a nutritious snack or dessert.

Modified from:

<https://cookpad.com/gt/recetas/704059-ensalada-de-frutas-con-salsa-de-yogurt-y-miel>



Avocado, mango, and dried fruits Salad

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
1	Small unit	Mango
1	Medium unit	Avocado
40	Grams	Variety of dried fruits (hazelnuts, nuts, cashew seeds, among others)
1	Tablespoon	Balsamic Vinegar
1	Teaspoon	Extra Virgin Olive oil
	Pinch	Salt

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the mango.
2. Chop the avocado and the mango in small pieces.
3. Grind the dried fruits.
4. Mix well to combine the pieces of avocado and mango, then add the dried fruits.
5. Add balsamic vinegar, extra virgin oil, and salt.

COOKING TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping Board
1	Grinder
1	Medium-sized mixing bowl
1	Spoon

NUTRITIONAL VALUE PER SERVING:
210 CALORIES

Preparation in which small pieces of fruits are well mixed to combine with their own juices or with other natural juices. Ideal choice to serve like a nutritious snack or dessert.

1. FRUITS SALAD

Modified from:

<https://www.petitchef.es/recetas/entrante/ensalada-de-aguacate-y-mango-con-vinagreta-de-frutos-secos-fid-1525637>



Cucumber and mandarin orange Salad

NUMBER OF SERVINGS: 4

INGREDIENTS:

Amount	Measurement	Ingredients
1	Unit	Cucumber
4	Unit	Mandarin orange
½	Cup	Green bell pepper
1	Small Unit	Romaine lettuce
½	Unit	Red onion
2	Tablespoon	Parsley
½	Unit	Strawberry yogurt
1	Teaspoon	Ground thyme
1	Pinch	Salt
1	Pinch	Black pepper
3	Tablespoon	Balsamic vinegar
2	Tablespoon	Olive oil

INSTRUCTIONS

1. Wash and disinfect the, as appropriate, the cucumber, bell peppers, lettuce, and parsley.
2. Chop the green bell pepper into stripes and then finely chop the parsley.
3. Chop the red onion into thin rings and soak them in water with balsamic vinegar for 30 minutes.
4. Chop the lettuce and soak it in water with vinegar for about 20 minutes.
5. Drain all the water from the lettuce and place it in a mixing bowl.
6. Chop the cucumber and place together with the mandarin orange segments.
7. Mix well to combine all the vegetables with the lettuce.
8. In another mixing bowl, prepare the dressing by mixing the extra virgin olive oil, balsamic vinegar, yogurt, and thyme. Mix well until you obtain a homogeneous mixture.
9. Season the dressing with salt and pepper.
10. Pour the dressing on the fruit and vegetable preparation and mix lightly.
11. Serve immediately.

KITCHEN TOOLS

Amount	Type of tool
1	Chopping Board
1	Paring knife
1	Medium-sized mixing bowl
2	Spoons
1	Wooden Spoon

NUTRITIONAL VALUE PER SERVING:

151 CALORIES

Mandarin orange may be replaced by pineapple.

Modified from:
<https://cookpad.com/gt/recetas/101849-ensalada-de-mandarinas-con-pepinos>



Fruits Skewers/Kebabs

NUMBER OF SERVINGS: 4

INGREDIENTS

Amounts	Measurements	Ingredients
2	Unit	Banana
3	Unit	Mango
3	Unit	Kiwi
½	Unit	Small pineapple
1	Unit	Lemon
3	Unit	Sweet Orange
2	Tablespoon	Brown sugar

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the fruit.
2. Squeeze the orange and lemon juice; mix well with 2 Tablespoons of sugar.
3. Peel the bananas, mangos, kiwis, and the pineapple.
4. Chop the bananas in slices of approximately 1 cm.
5. Use the fruit baller to scoop up small balls of mango flesh; cut the kiwi and the pineapple in small pieces. Remember to discard the inner core of the pineapple.
6. Add the fruit to the mixture of juices and allow to marinate for two hours.
7. Start threading the fruits on the skewers and let them cool before serving.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping Board
1	Drinking glass
1	Package of wooden skewers of 10 cm long
1	Medium-sized mixing bowl
1	Fruit baller

NUTRITIONAL VALUE PER SERVING:
209 CALORIES

Modified from:
<https://cookpad.com/es/buscar/brochetas%20de%20frutas>



Strawbennies Skewers/Kebabs

NUMBER OF SERVINGS: 8

INGREDIENTS

Amount	Measurement	Ingredients
2	Pound	Strawberry
2	Unit	Apple
3	Unit	Peach
4	Tablespoon	Sugar
1	Tablespoon	Vanilla Extract

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the strawberries, the apples, and the peaches.
2. Chop the apples and the peaches in small pieces.
3. Start threading the fruits on the skewers: one strawberry and one piece of another fruit. Reserve some strawberries for the sauce.
4. Repeat the threading of fruits as many times as considered convenient.
5. Freeze the fruits skewers for two hours.
6. Blend the strawberries which were reserved for the sauce.
7. Put the blended strawberries in the pot, add sugar and vanilla extract.
8. Cook over a low heat stirring constantly until it forms a thick sauce, leave it on the heat for 5 minutes. Allow to cool.
9. Serve the strawberry sauce with the fruits skewers.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Package of wooden skewers of 10 cm long
1	Small pot
1	Wooden spoon
1	Medium-sized mixing bowl

NUTRITIONAL VALUE PER SERVING:
88 CALORIES

Modified from:
Asociación Mexicana de Miembros de Facultades y Escuelas de Nutrición – AMMFEN C.A. Recetario 2015.

Fruit skewers/kebabs that are mixed with natural juices. This can be a fun option to increase or to promote a higher consumption of fruits.



Strawberry Ice-Cream

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
½	Liter	Milk
3	Cup	Fresh strawberries
½	Cup	Any other fruit of your choice (mango, coconut, peach)
112	Grams	Sugar
2	Tablespoon	Cornstarch
1	Pinch	Salt

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the strawberries, the mango, and the peach.
2. Blend all ingredients in a blender until smooth, except for the mango and the peach.
3. Chop the mango and the peach in small pieces.
4. Add the small pieces of mango and peach to the mixture.
5. Equally divide the mixture in 4 ice-cream molds.
6. Place in the freezer for 2 hours.

KITCHEN TOOLS

Amount	Type of tool
1	Medium-sized mixing bowl
1	Blender
1	Wooden spoon
2	Tablespoons
4	Ice-Cream molds

NUTRITIONAL VALUE PER SERVING:
229 CALORIES

Modified from:
<https://cookpad.com/gt/buscar/computa%20de%20manzana>



Peach Ice-Cream

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredientes
250	Milliliter	Water
500	Grams	Peach pulp
1	Teaspoon	Liquid sweetener
1	Teaspoon	Unflavored gelatin powder
Opcional	Unit	Raspberry or any other kind of fruit
Opcional	Leaves	Mint

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the peaches.
2. Peel and chop the peaches and extract the pulp.
3. Warm up the water and dissolve the gelatin by quickly moving the mixture.
4. Mix the peach pulp, liquid sweetener, and dissolved gelatin.
5. Place in the freezer for 2 hours and stir eventually.
6. Take the mixture out of the freezer and put it in the food processor.
7. Equally distribute the mixture in the ice-cream molds and place them in the freezer for three hours.
8. Before serving, garnish with raspberries or any other fruit of your choice and the mint leaves.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Medium-sized pot
1	Wooden spoon
4	Ice-cream molds
1	Food processor

NUTRITIONAL VALUE PER SERVING:
70 CALORIES

Modified from:

https://www.inta.cl/sites/default/files/cocina_saludable.pdf



Frozen Fruit Popsicles

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
1	Unit	Mango
8	Unit	Strawberries
2	Slice	Pineapple
1	Cup	Orange juice
½	Liter	Water
3	Tablespoon	Sugar

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the fruits. Chop them in small pieces.
2. Put the fruit pieces inside the ice-cream molds.
3. Add the sugar and the orange juice, fill the ice-cream molds and place popsicle sticks correctly.
4. Freeze overnight or for a whole day.
5. Rub a cloth with warm water on the outside of the mold so the popsicle will come loose.

KITCHEN TOOLS

Amount	Type of tools
1	Paring knife
1	Chopping board
1	Blender
1	Pitcher/Jar
4	Ice-cream molds
4	Wooden popsicle sticks

NUTRITIONAL VALUE PER SERVING: 95 CALORIES

Feel free to use any kind of fruit of your choice or use them depending on the harvest season.



Cantaloupe Melon and hierbabuena (Peppermint) Shave Ice

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
1	Medium-sized unit	Cantaloupe Melon
3	Tablespoon	Sugar
¼	Cup	Lemon Juice
2	Leaves	Hierbabuena/peppermint

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the cantaloupe melon and the hierbabuena/peppermint.
2. Using the knife, slice off the top of the melon and make a hole around the edge of the melon make peak-shaped cuts.
3. Remove all the seeds.
4. Shave the melon making sure the walls are left smooth and uniform and approximately of one centimeter in thickness. Place the melon base in the
5. fridge. Reserve the pulp.
6. Combine the removed pulp, lemon juice, some sugar, and the hierbabuena/peppermint.
7. Put the mixture into a blender, and blend until uniform.
8. Keep the mixture in the fridge and eventually stir so crystals will not form.
9. Pour the mixture inside the melon base and serve. Garnish with leaves of hierbabuena/peppermint.

KITCHEN TOOLS

Amount	Type of Tool
1	Medium-sized mixing bowl
1	Paring knife
1	Chopping board
2	Spoons
1	Blender

NUTRITIONAL VALUE PER SERVING:
76 CALORIES

Feel free to prepare this shave ice with any fruit of your choice.

Modified from:

<https://www.petitchef.es/recetas/postre/granizado-de-melon-y-hierbabuena-fid-9463354>

Light and refreshing preparation. Ideal choice to serve like dessert or during a special event.



Sugar-Apple/sweetsop and Orange Shake

NUMBER OF SERVINGS: 8

INGREDIENTS

Amount	Measurement	Ingredients
1	Pound	Sugar-apple/sweetsop
6	Unit	Sweet Orange

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the sugar-apple and the oranges.
2. Cut the sugar-apple in half, remove the pulp with a spoon and eliminate the seeds.
3. Squeeze the orange juice.
4. Put the orange juice and the pulp of the sugar-apple into the blender. Blend until you obtain a smooth mixture.
5. Leave to cool and serve.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Spoon
1	Pitcher
1	Drinking glass
1	Squeezer
1	Blender

NUTRITIONAL VALUE PER SERVING:
103 CALORIES

It can also be prepared with: passion fruit, mango, and mandarin orange



Modified from:
<https://cookpad.com/sv/buscar/batido%20de%20chirimoya>



Passion Fruit Drink

NUMBER OF SERVINGS: 8

INGREDIENTS

Amount	Measurement	Ingredients
5	Unit	Passion fruit
1	Liter	Water
2	Tablespoon	Sugar

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the fruits.
2. Cut each passion fruit in half and extract the pulp.
3. Put the pulp and 1/3 of water into the blender. Blend for 1 minute.
4. Pour the mixture through a strainer into the pitcher.
5. Add the rest of the water and the sugar.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Blender
1	Medium-sized mixing bowl
1	Pitcher
1	Wooden spoon
1	Strainer

NUTRITIONAL VALUE PER SERVING:
50 CALORIES

Feel free to use any kind of fruit of your choice or use them depending on the harvest season.

Modified from:

<https://www.recetasgratis.net/Receta-de-agua-de-maracuya-recetapasoapaso-52504.html>



Avocado Sauce

NUMBER OF SERVINGS: 8

INGREDIENTS

Amount	Measurement	Ingredients
3	Medium-sized unit	Ripe avocado
4	Unit	Lemon
1	Bunch	Coriander or cilantro
¼	Unit	Onion
½	Cup	Milk
1	Teaspoon	Ground cumin
1	Pinch	Salt

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the lemons, the coriander, and the onion.
2. Squeeze the lemon juice.
3. Chop onion and coriander finely.
4. Cut the avocado in medium-sized pieces.
5. Mix the ingredients in the blender until you obtain a sauce with a creamy consistency.
If necessary, you can add more avocado in order to obtain a thicker sauce.
6. Store the sauce in a container with lid and put it in the fridge until serving time.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Blender
1	Medium-sized mixing bowl
1	Tablespoon
1	Container with lid

NUTRITIONAL VALUE PER SERVING:
100 CALORIES

Modified from:
<https://www.laylita.com/recetas/2013/01/29/salsa-de-aguacate/>



Orange Vinaigrette

NUMBER OF SERVINGS: 8

INGREDIENTS

Amount	Measurement	Ingredients
1	Tablespoon	Parsley, finely chopped
1	Teaspoon	White vinegar
1	Tablespoon	Pure honey
¼	Cup	Olive oil
½	Tablespoon	Orange zest
1	Unit	Sweet Orange
¼	Teaspoon	Salt
1	Pinch	Black pepper

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the parsley and the orange.
2. Chop parsley finely.
3. Squeeze ¼ cup of orange juice.
4. Combine in the medium-sized mixing bowl the parsley, white vinegar, honey, and olive oil.
5. Add the orange juice and blend until smooth.
6. Season with salt and pepper.

KITCHEN TOOLS

Amount	Type of tool
1	Medium-sized mixing bowl
1	Paring knife
1	Chopping board
1	Cup
1	Blender

NUTRITIONAL VALUE PER SERVING:
71 CALORIES

Modified from:

<https://www.pizcadesabor.com/ensalada-con-naranjas-almendras-garapinadas-vinagreta-de-naranja/>

Sauces to accompany white and red meats or tacos. In addition, you can use it as a good option for salad dressings.



Mango Chutney

NUMBER OF SERVINGS: 8

INGREDIENTS

Amount	Measurement	Ingredients
2	Cloves	Garlic
2	Unit	Red onion
1	Cup	Cider vinegar
1	Cup	Brown sugar
6	Unit	Mango
1	Unit	Ginger
1/2	Unit	Red Hot Pepper
1	Teaspoon	Ground pepper
1	Teaspoon	Ground cumin
1	Teaspoon	Ground cinnamon
1	Teaspoon	Salt
1	Tablespoon	Oil

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the mangos, ginger, and the red hot pepper.
2. Peel the mango and remove the pulp.
3. Finely chopped garlic and red hot pepper.
4. Chop the red onion in segments.
5. Peel 2 centimeters of ginger and finely slice it.
6. Fry in oil the onion, the garlic, and the ginger.
7. Add the vinegar, the sugar, and all the dry ingredients (pepper, cumin, salt, and cinnamon) and mix well to combine properly.
8. Once the mixture boils, add the pulp of the mango and mix well.
9. Simmer and cook for 1 hour, stirring constantly to avoid gluing around.
10. Remove from heat and allow to cool.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Measuring cup
1	Tablespoon
1	Saucepan
1	Wooden spoon
1	Glass jar (Example: A Mason Jar)
1	Medium-sized mixing bowl

NUTRITIONAL VALUE PER SERVING:
163 CALORIES

Modified from:
<https://cookpad.com/es/buscar/chutney%20de%20mango>



Apple Compote

NUMBER OF SERVINGS: 4

INGREDIENTS

Amount	Measurement	Ingredients
8	Medium-sized unit	Ripe apples
1	Liter	Drinking water
1	Teaspoon	Lemon juice
1	Stick	Cinnamon
2	Tablespoon	Sugar

INSTRUCTIONS

- Put the water, lemon juice, and sugar in the pot.
- Bring mixture to a boil and reduce heat to medium low so sugar will slowly dissolve.
- Wash and disinfect, as appropriate, the apples. Peel and chop the apples into medium-sized pieces. Remember to eliminate the core or heart of the apples.
- Place the apples in the pot, add the cinnamon stick and then the apple skin. Cover the pot and cook at medium heat.
- Add water frequently during the cooking process.
- Remove the apple skin and the cinnamon stick and stir to combine all the flavors.
- Remove from the heat. Once at room temperature, mash the apple pieces until you obtain the consistency of porridge.

KITCHEN TOOLS

Amount	Types of Tool
1	Medium-sized pot
1	Wooden spoon
1	Paring knife
1	Chopping board
1	Tablespoon

NUTRITIONAL VALUE PER SERVING:
120 CALORIES

Modified from:
<https://cookpad.com/gt/buscar/compota%20de%20manzana>

Sweet or sweet-and-sour flavor dish which is eaten at the end of the meal.



The Super Apple

NUMBER OF SERVINGS: 1

INGREDIENTS

Amount	Measurement	Ingredients
1	Unit	Apple
1	Tablespoon	Granola
1	Tablespoon	Peanut butter

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the apple.
2. Cut the apple in thick slices. Remove the seeds from the apple.
3. Spread peanut butter on each apple slice and sprinkle with granola.
4. Place one apple slice on top of another slice.
5. Repeat the preparation until you finish the whole apple.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Flat plate

NUTRITIONAL VALUE PER SERVING:
208 CALORIES

Modified from:
Asociación Mexicana de Miembros de Facultades y Escuelas de Nutrición – AMMFEN C.A.- Recetario 2015.

Sweet or sweet-and-sour flavor dish which is eaten at the end of the meal.



Unripe Mango with Lemon and Ground Gourd Seeds

NUMBER OF SERVINGS: 2

INGREDIENTS

Amount	Measurement	Ingredients
2	Unit	Mango verde
3	Tablespoon	Lemon juice
2	Tablespoon	Ground gourd seeds
1	Pinch	Salt

INSTRUCTIONS

1. Wash and disinfect, as appropriate, the mangos and cut them into small stripes.
2. Add the lemon juice.
3. Add salt and ground gourd seeds, as desired.

KITCHEN TOOLS

Amount	Type of Tool
1	Paring knife
1	Chopping board
1	Mixing bowl
1	Table spoon

NUTRITIONAL VALUE PER SERVING:
120 CALORIES

Feel free to use ripe mango instead of unripe/green mango.

Popular Recipe

Sweet or sweet-and-sour flavor dish which is eaten at the end of the meal.



VI. RESOURCES FOR PROMOTING
The Consumption of Fruits

VI. RESOURCES FOR PROMOTING THE CONSUMPTION OF FRUITS

Below are the web sites containing educational resources that were developed within the Mesoamerican Fruit-Growing Project II – PROMEFRUT II and executed by SECAC/INCAP. The reproduction of part or all of this educational material is permitted provided the source is acknowledged, the contents are respected, and they are used for non-profit purposes:

1. Fruits Wikipedia: Detailed information on fruits and vegetables including information on their production and marketing in Central America and the Dominican Republic, available in the Fruits Wikipedia in the following link:

<http://wiki-cafta.org/index.php?lang=es>

2. Educational Material for Promoting the Consumption of Fruits: Activities suggested for promoting the consumption of fruits in school-age children, 7-9 years old; it includes a guide for the teacher and provides details about the proper use of each proposed activity, their objectives, and the skill practiced in each of them. The complete educational material can be downloaded from the following link:

http://www.incap.int/index.php/publicaciones/publicaciones-conjuntas-con-otras-instituciones/cat_view/751-publicaciones/790-publicaciones-conjuntas-con-otras-instituciones/793-pot-tema/813-promocion-del-consumo-de-frutas

3. Press Materials: Material designed to be published in children sections of regional newspapers, with the purpose of promoting the consumption of fruits among children. It has three types of interactive activities which will help children know the fruits, the nutrients they supply, and the health benefits they provide. These materials can also be used during activities with school children. The materials can be downloaded from the following link:

<http://www.frunet.org/bibliotecahtml?folder=Dia%2Bde%2BLas%2BFrutas&limitstart=0>

4. Strategies and recommendations for promoting the consumption of fruits in recreational and work environments: A document that presents a proposal with strategies and recommendations for the institutions to encourage greater consumption of fruits as part of a healthy working surrounding.

<http://www.frunet.org/biblioteca.html?folder=Dia%2Bde%2BLas%2BFrutas&limitstart=0>

5. Technical proposal for the institutionalization of a Fruit Day Celebration in Central America and the Dominican Republic: This document proposes the celebration of the Fruit Day on May 3rd; with a variety of activities. The whole document can be downloaded from the following link:

<http://www.frunet.org/biblioteca.html?folder=Dia%2Bde%2BLas%2BFrutas&limitstart=0>

6. Poster/ Tri-Fold brochure

Poster and Tri-Fold brochure for promoting the importance of celebrating the Fruit Day on May 3rd, and the health benefits provided by consuming fruits. The material can be downloaded from the following link:

<http://www.frunet.org/biblioteca.html?folder=Dia%2Bde%2BLas%2BFrutas&limitstart=0>

7. Technical data sheets for reporters of fruit marketplaces. Available from SIMEFRUT in the following link:

<http://simefrut.org>. (Date consulted: March 2017).



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VIII. ANNEXES

ANNEX 1. GLOSSARY

Food	Natural or artificial substance or product that is adapted for human consumption. It is any substance that provides the material and the energy needed to perform our daily functions.
Antioxidants	<p>Antioxidants are found in many foods; vegetables and fruits are rich sources of antioxidants. These are substances produced by the organism or can be naturally found in foods, they can also be produced by men, they help to prevent or delay some types of cell damage.</p> <p>Antioxidant is a substance able to neutralize the oxidant action of free radicals. Antioxidants may come from the diet, vitamin E, vitamin C, and carotenoids are within this group. Vitamin C is the most abundant water-soluble antioxidant in the blood, while vitamin E is the most abundant fat-soluble antioxidant.</p>
Anthocyanin	<p>Anthocyanin are a group of red and blue pigments that belong to a class of molecules called flavonoids; they are water-soluble and are widely spread in the vegetable kingdom, in fruits, and in flowers. Anthocyanin may help to improve overall visual acuity, show antioxidant activity, trap free radicals, act as chemo preventive agents, and help to reduce heart disease.</p> <p>The main source of anthocyanin are red fruits, especially berries and red grapes, cereals, especially purple corn, vegetables, and the red wine among drinks.</p>
Bromelain	It is an enzyme complex that digests proteins (protease enzymes). It is found in fruits, and its highest concentration is found in the stem of the pineapple (<i>Ananas comusus</i>).
Carbohydrates	These are macronutrients. They are the basic source of energy for the human body. Most of the body functions use carbohydrates as their main energy source. The main sources of carbohydrates are: grains, cereals, potato, bread, cassava, plantain, sugar, honey, etc.

Carotenoids	The carotenoids are colored compounds such as the beta-carotenoids, these are present in vegetables and in yellow and orange fruits as well as in dark green vegetables.
Energy	It is the “fuel” the body uses to perform its daily functions. It comes from the macronutrients found in a wide variety of foods we eat (fats, carbohydrates, and proteins).
Enzymes	These are molecules produced by the organism, they are also found in food; enzymes break down food in smaller parts so that the body can absorb the nutrients.
Proteolytic Enzyme	These are enzymes that help digest the proteins found in food. The body produces this type of enzymes; however, they can also be found in some foods. These type of enzymes are traditionally used as natural “meat tenderizers”. In ancient times, people used some plant leaves to wrap the meat, this facilitates the action of these type of enzymes. The primary use of proteolytic enzymes is as a digestive aid for people who have trouble digesting proteins.
Dietary Fiber	It is one type of carbohydrate which cannot be digested by the human small intestine. Its everyday use, in adequate amounts, has beneficial effects for the human being since it helps reduce the risk of suffering from hypercholesterolemia and atherosclerosis. It also helps prevent colon cancer.
Phytosterols	These are chemical components found in almonds, nuts, fruits, vegetables, seeds, legumes, etc. They have demonstrated to be powerful agents for reducing blood LDL- cholesterol (Low Density Lipoprotein), this type of cholesterol is also known as “bad cholesterol”.

Phytochemicals	(from Greek phyto, meaning “plant”). These are natural chemical components, biologically active and found in plant-based foods. The phytochemicals work as powerful antioxidants and metabolism regulators that protect against chronic diseases.
Flavonoids	Recently, another type of non-nutrient antioxidants has been discovered in food. These are the flavonoids which are found in some citrus food. These are responsible for maintaining vascular activity, especially in those who used to consume fatty diets.
Fats	These are macronutrients. They are concentrated energy sources which have several functions such as, formation of hormones and cell membranes, transport of vitamins, maintenance of proper nervous system functions, regulation of body temperature as well as provision of fatty acids that cannot be produced by the body. Fats can be of: animal origin, for example the lard, cream, and butter; and of plant origin, for example the oils and margarine. A high consumption of fats, especially those of animal origin, poses a risk for human health.
Macronutrients	These are nutrients required by the body in high amounts, they fulfil many important functions such as the energy production needed to carry out the basic body functions of daily life. The macronutrients are: proteins, carbohydrates, and fats.
Micronutrients	These are nutrients required by the body in small amounts, they fulfil many important functions. The micronutrients are: the vitamins and the minerals.
Minerals	These are micronutrients essential for maintaining life and health so they must be consumed daily. They are part of body tissues such as bones and teeth, and participate in specific functions of the organism. They are widely spread in foods, especially in those of animal origin and in minor amounts in vegetables. In addition, they are being added to some foods such as iodine salt and fortified flours.

Nutrient	These are substances or chemical components found in foods, they have special functions in the body such as tissue formation, organism protection, source of energy to perform the body functions, among others. There are two types of nutrients: Macronutrients and micronutrients.
Papain	This is an enzyme found in the papaya and favors the process of protein digestion (proteolytic enzyme).
Proteins	<p>These are one type of macronutrients. They are big molecules and are part of body tissues (blood, muscle, skin, etc.); they are formed by units called amino acids. The main function of the proteins is the formation of all kind of tissues, from the hair, the skin and the nails, to the muscles. They are essential for body growth.</p> <p>The proteins can be of animal origin: meats, viscera, fish, seafood, mollusks, eggs, milk and milk products; and of plant origin: black beans, soya, nuts and flour mixtures (example, Incaparina and others).</p>
Free Radicals	<p>These are highly reactive atoms or groups of atoms. They form chain reactions that destroy our cells. The biological half-Life of free radicals is within microseconds, but they have the ability to react with everything around them causing great damage to molecules, cellular membranes, and tissues.</p> <p>The health problem is produced when the organism must put up with an excess of free radicals, produced mainly by external pollutants especially coming from atmospheric pollution and cigarette smoking. The consumption of hydrogenated vegetable oils such as margarine, and the consumption of trans-fatty acids and fats coming from meat and milk, can also increase the amount of free radicals.</p>

Tannins	<p>These are a class of colorless or yellow-brownish compounds, with astringent and bitter flavor. They are responsible for some desirable characteristics in foods such as red wine, jellies, and marmalades. In addition to providing color to some jellies and marmalades, tannins contribute to the characteristic flavor of some food products such as sage and mint. The tannins are also considered as antioxidants, very effective in trapping free radicals.</p>
Vitamins	<p>These are essential micronutrients that must be consumed daily. They are important for maintaining various functions such as regulating the processes by which the body uses macronutrients as well as other different functions of the organism. The vitamins are found in almost all types of food, especially in fruits, vegetables, herbs, and foods from animal origin. There are two types of vitamins: Water-soluble and Fat-soluble.</p> <p>The water-soluble vitamins are found dissolved in the water contained in foods. These are vitamin C and the vitamins of the B-complex.</p> <p>The fat-soluble vitamins are mainly found in the fat of animal products or in the oils and in some vegetables. These are vitamin A, D, E, and K.</p>

ANNEX 2.

1. NUTRITIONAL VALUE OF FRUITS PER 100 GRAMS OF EDIBLE SERVING

FCT Code*	Fruit	Water (%)	Calories (kcal)	Protein (g)	Total Fat (g)	Carbohydrates (g)	Dietary Fiber	Vit. A (RE)	Vitamin C (mg)	Potassium (mg)	Folate (DFE)	Iron (mg)
11005	Avocado	73,23	160	2,00	14,66	8,53	6,7	7	10	485	81	0,55
12008	White Sugar-apple	71,5	101	1,70	0,60	25,20	2,4	2	19	382	--	0,71
12010	Ripe Banana	74,91	89	1,09	0,33	22,84	2,6	3	9	358	20	0,26
12019	Fresh Plum	87,23	46	0,70	0,28	11,42	1,4	17	10	157	5	0,17
12022	Coconut (ripe pulp)	46,99	354	3,33	33,49	15,23	9,0	0	3	356	26	2,43
12021	Coconut (water)	94,99	19	0,72	0,20	3,71	1,1	0	2	250	3	0,29
12038	Peach, ripe unpeeled	85,3	52	0,80	0,20	13,30	1,5	16	28	190	4	1,10
12042	Strawberry	90,95	32	0,67	0,30	7,68	2,0	1	59	153	24	0,42
12052	Ripe Guava	86,1	51	0,80	0,60	11,90	--	32	183	284	--	0,30
12073	Sour lemon, peeled	88,98	29	1,10	0,30	9,32	2,8	1	53	138	11	0,60
12077	Mandarin orange	85,17	53	0,81	0,31	13,34	1,8	34	27	166	16	0,15
12080	Ripe mango	83,5	59	0,50	0,20	15,40	1,8	38	53	156	14	0,80
12084	Creole apple	84,7	54	0,30	0,10	14,60	1,3	2	8	90	0	0,70
12092	Passion Fruit	72,93	97	2,20	0,70	23,38	10,4	64	30	348	14	1,60
12096	Cantaloupe	90,15	34	0,84	0,19	8,16	0,9	169	37	267	21	0,21
12105	Sweet orange	86,75	47	0,94	0,12	11,75	2,4	11	53	181	30	0,10
12112	Papaya (pulp)	88,83	39	0,61	0,14	9,81	1,8	55	62	257	38	0,10
12125	Pineapple	85,66	51	0,53	0,11	13,50	1,4	3	56	108	19	0,28
12134	Watermelon	91,45	30	0,61	0,15	7,55	0,4	28	8	112	3	0,24
12138	Tamarind	31,4	239	2,80	0,60	62,50	5,1	2	4	628	14	2,80
12152	Red Mamey	65,6	121	1,70	0,40	31,10	2,6	21	22	344	--	1,00

2. NUTRITIONAL VALUE OF SOME FRUITS PER SERVING

FCT Code*	Fruit	Net Weight per serving (g)	Water (%) per serving	Calories (Kcal) per serving	Protein (g) per serving	Total Fat (g) per serving	Carbohydrates (g) per serving	Dietary Fiber (g) per serving	Vitamin A (RE, mcg) per serving	Vitamin C (mg) per serving	Potassium (mg) per serving	Folate (DEF, mcg) per serving	Iron (mg) per serving
11005	Avocado	55	73.23	88	1,10	8,06	4,69	3,69	3,85	5,50	266,75	44,55	0,30
12008	White Sugar-apple	100	71.50	101	1,70	0,60	25,20	2,40	2,00	19,00	382,00	--	0,71
12010	Ripe Banana	129	74.91	115	1,41	0,43	29,46	3,35	3,87	11,61	461,82	25,80	0,34
12019	Fresh Plum	58	87.23	27	0,41	0,16	6,62	0,81	9,86	5,80	91,06	2,90	0,10
12021	Coconut (ripe pulp)	240	94.99	46	1,73	0,48	8,90	2,64	0,00	4,80	600,00	7,20	0,70
12022	Coconut (water)	71	46.99	252	2,37	23,86	10,85	6,41	0,00	2,14	253,65	18,53	1,73
12038	Peach, ripe unpeeled	46	85.30	24	0,37	0,09	6,12	0,69	7,36	12,88	87,40	1,84	0,51
12042	Strawberry	54	90.95	17	0,36	0,16	4,15	1,08	0,54	31,86	82,62	12,96	0,23
12052	Ripe Guava	44	86.10	22	0,35	0,26	5,24	--	14,08	80,52	124,96	--	0,13
12073	Sour lemon, peeled	89	88.98	26	0,98	0,27	8,29	2,49	0,89	47,17	122,82	9,79	0,53
12077	Mandarin orange	50	85.17	27	0,41	0,16	6,67	0,90	17,00	13,50	83,00	8,00	0,08
12080	Ripe mango	78	83.50	46	0,39	0,16	12,01	1,40	29,64	41,34	121,68	10,92	0,62
12084	Creole apple	85	84.70	46	0,26	0,09	12,41	1,11	1,70	6,80	76,50	0,00	0,60
12092	Passion Fruit	59	72.93	57	1,30	0,41	13,79	6,14	37,76	17,70	205,32	8,26	0,94
12096	Cantaloupe	87	90.15	29	0,73	0,16	7,07	0,78	146,40	32,05	231,29	18,19	0,18
12105	Sweet orange	113	86.75	53	1,06	0,14	13,28	2,71	12,43	59,89	204,53	33,90	0,11
12112	Papaya (pulp)	77	88.83	30	0,47	0,11	7,55	1,39	42,35	47,74	197,89	29,26	0,08
12125	Pineapple	101	85.66	52	0,54	0,11	13,64	1,41	3,03	56,56	109,08	19,19	0,28
12134	Watermelon	105	91.45	32	0,64	0,16	7,93	0,42	29,40	8,40	117,60	3,15	0,25
12138	Tamarind	38	31.40	92	1,08	0,23	24,03	1,96	0,77	1,54	241,47	5,38	1,08
12152	Red Mamey	136	65.60	165	2,31	0,54	42,30	3,54	28,56	29,92	467,84	--	1,36

*Food Composition Table of INCAP.
Institute of Nutrition of Central America and Panama – INCAP- (1971).
Nutritional value of foods for Central America and Panama. Guatemala

3. REFERENCE NET WEIGHT PER SERVING SIZE

FCT Code*	Fruit	Portion	Net Weight (g)
11005	Avocado	½ unit	55
12008	White Sugar-apple	1 small-sized Unit	100
12010	Ripe Banana	1 medium-sized unit	129
12019	Fresh Plum	1 unit	58
12021	Coconut (water)	1 cup	240 (ml)
12022	Coconut (ripe pulp)	1 piece	71
12038	Peach, ripe unpeeled	1 unit	46
12042	Strawberry	8 units	54
12052	Ripe Guava	1 unit	44
12073	Sour lemon, peeled	1 unit	89
12077	Mandarin Orange	1 unit	50
12080	Ripe mango	1 unit	78
12084	Creole apple	1 unit	85
12092	Passion Fruit	1 unit	59
12096	Cantaloupe	1 slice	87
12105	Sweet orange	1 unit	113
12112	Papaya (pulp)	1 slice	77
12125	Pineapple	1 slice	101
12134	Watermelon	1 big slice	105
12138	Tamarind	4 units	38
12152	Red Mamey	½ unit	136

*Food Composition Table of INCAP.
 Institute of Nutrition of Central America and Panama – INCAP– (1971).
 Nutritional value of foods for Central America and Panama. Guatemala

The background of the slide is a dense, repeating pattern of small, light-brown, bean-like objects. These objects have a characteristic shape with two rounded lobes connected by a narrow neck, similar to the seeds of a tamarind tree. They are scattered across the entire page, creating a textured, organic backdrop.

IX. CREDITS

The fruit pictures are property of the Mesoamerican Fruit-growing Project II – PROMEFRUT II, taken from the different materials being developed and the project activities. (Refer to Chapter VI. Resources for Promoting the Consumption of Fruits)

Other pictures were provided by:

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From the Guatemala's Productivity and Technical Training Institution.
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