



Banana (Musa)

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Abstract. The article discusses the main properties of a banana and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. The chemical composition and nutritional value of the fruit are indicated, the use of calendula in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of banana on the human body under certain medical conditions and diseases are analyzed separately. The scientific foundations of diets with its use are considered.

Keywords: banana, beneficial properties, potentially dangerous effects, side effects, contraindications, diets

Beneficial features

Table 1. Chemical composition of banana (according to [Food+](#)).

100 g of fresh dessert bananas without peel contains [7]:					
Main substances:	G	Minerals:	mg	Vitamins:	mg
Water	74, 91	Potassium	358	Vitamin C	8.7
Carbohydrates	22.84	Magnesium	27	Vitamin PP	0.665
Sugar	12.23	Phosphorus	22	Vitamin B6	0.367
Alimentary fiber	2.06	Calcium	5	Vitamin B2	0.073
Squirrels	1.09	Sodium	one	Vitamin A	0.064
Fats	0.33	Iron	0.26	Vitamin B1	0.031
calories	89kcal	Zinc	0.15		
100 g of fresh yellow plantains contains [8]:					
Main substances:	G	Minerals:	mg	Vitamins:	mg
Water	65.20	Potassium	487	Vitamin C	18.4
Carbohydrates	31.89	Magnesium	36	Vitamin PP	0.672

Sugar	17.51	Phosphorus	32	Vitamin B6	0.242
Alimentary fiber	1.7	Sodium	four	Vitamin B2	0.076
Squirrels	1.30	Calcium	3	Vitamin B1	0.062
Fats	0.35	Iron	0.55		

So, a fresh banana is not very fatty, but a very nutritious and energetically valuable product. As for plantains, which require heat treatment before consumption, they are rich in the same minerals and vitamins as dessert bananas. Baking such fruits allows you to save their beneficial substances, but frying reduces the amount of vitamins and makes them fatter and more nutritious.

Medicinal properties

Despite the fact that a banana is 75% water, it contains many useful components. For example, this tropical fruit is very rich in potassium, and thus helps the body maintain a healthy heart and kidneys, as well as enhances attention and activates the brain. Scientists claim that a sufficient amount of this mineral in the body prevents the formation of kidney stones, contributes to the normalization of blood pressure and reduces the risk of a heart attack by 27% ^[11]. Magnesium in combination with vitamins C and B6 also has a positive effect on the functioning of the heart.

In addition, a banana is recommended for diarrhea. By itself, the fruit will not solve the problem, but it will certainly help restore the level of potassium that is washed out of the body during an upset stomach ^[12]. Bananas also contain dietary fiber, which supports normal bowel function and plays an important role in preventing colorectal cancer. By the way, the antioxidants in bananas can help reduce the damage from free radicals, which scientists believe contribute to the development of cancerous tumors.

Banana is considered an effective assistant in the fight against ulcers, since it contains substances that resist the bacteria that cause this disease. It also has an antacid effect (reduces irritation of the mucous membrane, soothes the digestive system) and envelops the walls of the stomach.

Bananas are useful at any age, but are especially important at a very early stage of life. So, puree from this tropical fruit usually becomes almost the first meal of the baby after mother's milk. As a rule, a banana does not cause allergies and provides the child's body with useful substances. Moreover, according to the observations of British scientists, if children eat one banana every day, then their risk of developing asthma is reduced by 34% ^[12].

The use of this tropical fruit also benefits the organs of vision. Despite the fact that carrots are usually associated with a positive effect on the eyes, bananas also contribute to the fight against macular degeneration (retinal damage and impaired central vision), due to the presence of vitamin A in their composition.

Calcium is found in bananas in not very large quantities, but it still helps to strengthen bones. In addition, certain non-digestible carbohydrates increase the body's ability to absorb calcium from other sources.

Finally, bananas are often and not in vain associated with the product for athletes. Minerals and fast carbohydrates saturate the body and charge with energy and strength for a rich workout. In addition, some scientists believe that bananas help reduce muscle cramps and relieve sore throat. However, this effect has not been scientifically proven.

In the same way, the effect of bananas on a person's mood has not been proven. The antioxidant dopamine, obtained from a banana, does not affect the hormonal background, so you should not associate its entry into the body with an improvement in mood. And in the case of the amino acid tryptophan, which in the body is transformed into the neurotransmitter serotonin ("the hormone of good mood"), its amount in a banana is so insignificant that it can hardly affect mood.

In medicine

Although bananas are not used in the pharmaceutical industry, they certainly have medicinal properties that are actively used in traditional medicine. In tropical countries, where a banana is considered one of the main components of the daily diet, not only the pulp of the fruit, but also the rest of the plant (roots, leaves, flowers, fruit peel) is used to treat various diseases. For example, it is believed that an infusion of flowers helps with diabetes, ulcers and bronchitis, roots - with disorders of the stomach, dysentery, and leaves - with skin wounds and burns ^[13]. In our area, the use of banana for medicinal purposes is mainly limited to the use of the fruit and its peel.

- Drinks and infusions

With bronchitis, in combination with drug treatment, it is recommended to drink a honey-banana drink. To prepare it, peel and mash 3 ripe bananas, pour 400 ml of boiling water over them, and let the mixture brew for about 30 minutes. In the cooled remedy, you need to add 2 tablespoons of honey and drink half a glass 4 times a day for 5 days.

A chocolate-banana drink can help get rid of a sore throat. It is necessary to mash 1 ripe banana and add 1 tablespoon of cocoa powder to it. Then dissolve the resulting mixture in 1 cup of boiled milk. Take the remedy at bedtime for 5 days.

To combat dry cough, it is advised to mash one ripe banana, add 100 ml of orange juice, 200 ml of boiling water, 1 tablespoon of honey and cinnamon to taste. Means to use for 5-7 days. And if you brew a whole banana with a peel like tea, adding a little cinnamon, then a cure for insomnia will come out.

Traditional healers claim that 1 mashed banana, poured into a glass of milk, can help the body cope with mild allergic reactions. The drink should be consumed 2-3 times a day. And if you add a little honey to this mixture, you get a good cure for a hangover.

Finally, banana kvass is considered to help the body with arrhythmias. To prepare it, put 2 cups of chopped banana peel in gauze and pour 3 liters of boiled water. Then add 1 tablespoon of sour cream, a glass of sugar and insist 12 days. A thin layer of mold may form on the surface of the liquid, which must be removed immediately. After 12 days, 1 liter of kvass can be poured and filtered through gauze, and the remaining one can be added with 1 liter of water and a third of a glass of sugar, leaving it to infuse for a few more days. It is necessary to drink kvass half a glass 2 times a day before meals.

- Applications

Banana peel, less often banana pulp, is used as an appliqué. The inside of the skin acts as a natural antiseptic, and thanks to tannins and wax, it can help stop bleeding. In addition, the oils in its composition help relieve pain and itching. Thus, you can apply the peel or pulp, carefully scraped off with a knife, to scratches, abrasions, calluses, bruises, burns, insect bites. Folk recipes also suggest regularly applying a banana peel to warts. The result should be noticeable after 3-4 weeks.

in oriental medicine

In Eastern practice, a banana is considered a useful product and is used for various purposes. Particular attention is paid to the ripeness of the fruit, because this greatly affects its medicinal properties. For example, with ripening, a protein appears in a banana that is involved in preventing the development of cancerous tumors. Conversely, an unripe banana contains resistant starch (dietary fiber), which, according to Indian doctors, improves the condition of diabetes.

Oriental medicine also considers banana an effective means of cleaning blood vessels. This fruit contains phytosterols that help lower cholesterol levels. According to one of the recipes, pour 50 g of mashed banana into a cup of tea and add 2 teaspoons of honey. This remedy should be taken in the morning and evening.

In addition, in Eastern practice it is not customary to combine a banana with milk, as is often done in the West. It is believed that such a compound negatively affects the digestion process, can provoke allergies, and can also cause seemingly completely unrelated cough and runny nose ^[14].

In scientific research

Since the banana has a lot of useful properties and is the main part of the diet in many tropical countries, it has long been the object of scientific research. Scientists are looking for ways to make this fruit more resistant to various diseases, as well as studying its potential as a medicinal product.

For example, a 10-year humanitarian project by a group of Australian researchers recently completed with success, the goal of which was to develop bananas rich in provitamin A. This task was set for scientists due to the fact that in Uganda and several other African countries, hundreds of thousands of children die or become blind due to a lack of this vitamin in the body. Now the problem can be partially solved, thanks to the future harvests of "golden" bananas ^[15]. In parallel, the mechanisms of carotenoid production in bananas are also being studied in the USA ^[16].

Also in the United States, a group of scientists from different countries is working to investigate a compound found in a banana - a protein lectin (BanLec). It was found that this protein can become the basis for drugs against viral diseases (influenza, hepatitis C, HIV, etc.). The first experiments showed that it does not allow viruses to enter the cells of the body, but at the same time causes side effects in the form of irritation and inflammation. Slightly "improved" by scientists, BanLec will gradually be tested on animals, and then on humans ^[17].

In addition, British scientists are working on the creation of medicines that will use fiber from banana and broccoli. This agent is aimed at the treatment of patients with Crohn's disease (inflammatory disease of the gastrointestinal tract) ^[18].

Weight regulation

Nutritionists recommend a banana for inflammatory diseases of the mucous membranes of the duodenum, stomach and oral cavity. It is included in the diet for diseases of the pancreas, as well as some diseases of the liver and kidneys.

As for diets aimed at reducing weight, in this area the attitude towards the banana is ambiguous. Some believe that this fruit is too high in calories and should never be included in the diet of a losing weight person. Others, on the contrary, argue that a banana, although high in calories, does not contain fat, so it can and should be consumed, but in moderation.

In any case, during the diet, it is preferable to eat unripe bananas, which contain starch that has not yet had time to turn into sugar. The glycemic index of such a fruit is only 30 units, while a ripe banana is

about 50. Thus, an unripe fruit will take longer to digest, avoid a sharp spike in sugar and bring longer satiety.

In cooking

In some tropical countries, where the banana is the basis of the diet, it is consumed not only raw or in desserts, but also boiled, deep-fried, baked on coals. Usually, plantains are used to make side dishes. Africans add them to cereals, omelettes, and even soups, and in China, a banana can be found in a vegetable salad. Sauces, casseroles, chips are prepared on the basis of bananas, flour and ketchup are made from them.

By the way, a banana can also come in handy while cooking meat. In order to make it softer and more tender, experienced housewives add banana skin to the pan.

As for the compatibility of a banana with other products, it combines well with sweet fruits and nuts. Some nutritionists do not see anything seditious in mixing a banana with dairy products, while others consider such a tandem unacceptable. It is best to eat a banana between main meals, separately from other meals.

- **Beverages**

Banana is used to make a wide variety of drinks, from fresh juices, smoothies and cocktails to tea, coffee, beer and gin. More traditional for us, juices and smoothies are recommended to drink every day between meals or after exercise. Victoria's nutritionists and trainers Secret recommend making green juice from a banana, two pears, a stalk of celery, a handful of spinach, lemon, and honey.

Coffee lovers may not be limited to adding banana syrup to the drink, but also experiment with fresh fruit. So, you need to cool 350 ml of strong coffee, add 100 g of ice cream, 1 banana, a pinch of cinnamon, a little grated chocolate and beat everything in a blender. Then put crushed ice in a glass and pour the drink.

Banana is also used in alcoholic beverages. For example, in Uganda, it is used to make the national drink **waragi** (homemade gin). Waragi is usually drunk from barrels through special long straws.

Banana can also be used to make a sweet wine-based cocktail. To do this, take 1 banana, 2 limes, 100 g of chocolate ice cream, 1 tablespoon of powdered sugar in a glass of white nutmeg wine and add ice after mixing.

In cosmetology

Numerous studies show that the banana is useful not only for the health of internal organs and systems, but is also effective when used externally. This fruit is actively used in the development of cosmetic products for facial skin and hair care. Global cosmetic giants annually buy tons of bananas for the manufacture of various creams, lotion masks, etc.

Banana is believed to help moisturize the skin of the face, help eliminate wrinkles and contribute to the fight against acne. The moisturizing mask recipe is simple: mix half a ripe mashed banana with 1 tablespoon of yogurt and 1 tablespoon of vitamin E oil. Apply to a clean face and wash off after 30 minutes. In order to make the skin more elastic and elastic, mix the pulp cut from a banana skin and 1 one yolk. This mask is kept for 5 minutes and then washed off. To treat acne, simply rub the affected area with the inside of the peel and rinse with water after a few minutes.

In hair care, banana has a nourishing, moisturizing and strengthening effect. To achieve the effect and avoid difficulties, it is necessary to adhere to the following recommendations:

- do not knead the banana with a fork, but beat with a blender until a homogeneous mass is obtained, otherwise the lumps will not be washed out well;
- before washing off the mask with water, you should apply shampoo to the hair and lather, otherwise the hair may remain sticky;
- do not keep the mask on your hair for longer than 20-30 minutes (do not let it dry).

As far as recipes go, simply beat a raw egg with 4 tablespoons of mashed banana to make the formula. To achieve a moisturizing effect, you need to mix 3 tablespoons of mashed banana and avocado, a raw egg and 2 tablespoons of unrefined olive oil. In the fight against hair loss, it is advised to combine 4 tablespoons of banana puree with 1 tablespoon of sea salt, and add a little olive oil to get a more liquid consistency. Such a mask is rubbed into the roots, not applied to the entire length of the hair.

Unconventional use

The banana fruit itself is usually used quite traditionally, although sometimes the skin of a banana is used instead of a cream for leather shoes or as a cosmetic product, but banana leaves find a much wider range of applications.

Firstly, they are used as decoration during various Buddhist ceremonies and rituals. In addition, in India they serve as plates for traditional dishes. Secondly, original umbrellas are made from banana leaves, as well as a kind of wrapping paper for products. Thirdly, even a special kind of plant is grown - a textile banana. Its strong false trunk of leaves is used to make fishing nets, sea ropes and rafts. Finally, in some regions of India, a banana leaf is still used instead of toilet paper.

Dangerous properties of a banana and contraindications

Like any other food product, with a general positive effect on the body, in some situations, a banana can produce the opposite effect. This does not mean that it should be completely excluded from the diet, but under certain conditions, the consumption of this fruit should be limited.

- Banana actively removes fluid from the body, as a result of which blood thickens and its flow to organs and parts of the body decreases. Therefore, people suffering from varicose veins, men with erection problems, and patients with thrombophlebitis should not get carried away eating bananas.
- Taking beta-blockers for heart disease significantly increases the level of potassium in the body, so you should not consume a large amount of bananas rich in this mineral, especially with unhealthy kidneys.
- In large quantities, bananas are not recommended for irritable bowel syndrome, as they can cause bloating.
- Uncontrolled consumption of bananas is contraindicated in obese people.
- People with diabetes need to carefully approach the choice of bananas. Slightly unripe fruits are best, because when they ripen, the complex carbohydrates (starch and fiber) contained in them are transformed into carbohydrates with a high glycemic index.

Botanical description

Banana is the fruit of a large perennial herbaceous plant of the banana genus (lat. *musa*) of the banana family (lat. *musaceae*). Although in everyday life and in cooking we are accustomed to consider bananas as just fruits, botanists classify them as berries. It is these non-standard berries that are

included in the world's top most important agricultural crops along with wheat, rice, corn and potatoes. According to statistics, people around the world eat about one hundred billion bananas a year ^[1].

origin of name

As for the scientific term *Musa*, there are two versions of its origin. According to the first, it was borrowed from Arabic, in which the word *mauz* (arab. موز) means banana. According to the second version, the Latin name was given in honor of the Greek Renaissance botanist *Antonio Musa*. As for the word "banana" itself, it sounds the same in most modern European languages. It is likely that the Portuguese or Spaniards originally adopted it from the West African language Wolof, in which it is pronounced like this - **banana** ^[2].

Story

Numerous researchers of the origin of the banana agree that the Malay Archipelago and Oceania were the birthplace of this fruit. Scientists believe that people began to grow bananas there for human consumption in the 5th millennium BC. And some even claim that the banana was cultivated in Papua New Guinea (Oceania) as early as the 8th millennium BC. ^[3]

Until now, disputes have not subsided about the period of the appearance of bananas in Africa. So, some researchers are convinced that bananas have been grown in Madagascar for about 3 thousand years. However, more substantial evidence suggests that these fruits appeared on the African island only in 400-600 AD, thanks to Asian colonizers. Around the same time, bananas spread throughout the Middle East, and they appeared in China a little earlier - around 200 AD, although they managed to gain wide popularity only in the 20th century ^[4].

Thanks to the Portuguese sailors who discovered yellow sweet fruits in Africa, banana plantations appeared in the Canary Islands, and from there the road to the Caribbean, Central and South America was opened for these fruits. As for the North American continent, yellow fruits got into the diet of local residents there only in the second half of the 19th century.

The same fate befell the banana in Europe. Until the beginning of the Victorian era, bananas were not in special demand, although they were already known in the Old World (according to legend, their great taste struck Alexander the Great, who brought them from India). A new wave of interest in bananas rose in the 19th century in Hamburg, Germany, where this overseas fruit was brought by sailors, and swept across Europe. The French especially liked the new delicacy. Moreover, in Paris, the banana has become an integral symbol of salon life.

As for Russia, the active import of bananas began under Nikita Khrushchev. Naturally, there is no need to talk about the widespread availability of these fruits, but in big cities they appeared on the shelves from time to time. However, in the 60s. relations between the USSR and one of the two main suppliers of tropical fruit, China, deteriorated. And another supplier country, Vietnam, was engulfed in war, so the import of bananas practically ceased. In the 70s. Leonid Brezhnev arranged the import of fruit from Africa and Latin America.

Interestingly, unlike our time, when a yellow sweet banana can be purchased almost anywhere in the world, earlier it was not possible to enjoy the sweet variety of this tropical fruit everywhere. Not in all countries where bananas were grown, they were suitable for eating raw. And yes, the taste could be different.

However, in the 19th century, a fortunate combination of circumstances contributed to the spread of sweet banana fruits around the world. At the beginning of the century, the French botanist and chemist

Jean-Francois Pouyat brought a banana variety from the island of Martinique to Jamaica, which was later called Gros Michel ^[5]. This sweet tropical fruit quickly gained popularity among the locals, and with the imminent appearance of the first cooling chambers, Jamaica established the first large shipments of bananas to other countries. Thus, Gros Michel gradually gained worldwide fame.

Varieties

The species and varietal diversity of bananas is amazing. In addition to plants that produce edible fruits, there are also ornamental and wild bananas. Directly edible banana varieties are conditionally divided into **dessert** (with sweet pulp) and **plantains** (with a hard, starchy core). The former are usually consumed raw or dried, while the latter require heat treatment or are used as livestock feed.

Interestingly, almost all varieties of edible bananas grown today are varieties of one cultigen - a cultivated plant that has no analogue in the wild. Sometimes wild bananas have a visual resemblance to the familiar yellow crescents, but inside they are speckled with seeds, and a tiny amount of pulp has an unpleasant taste.

As for the bananas eaten, almost all existing varieties are variations of a human-bred hybrid. The work of breeders made it possible to achieve good taste characteristics and the required level of resistance to diseases and pests. Considering that the plant reproduces vegetatively, then, in fact, all bananas growing today have the same progenitor.

However, even such painstaking work is not a guarantee of safety for fruits. For example, the already mentioned variety Gros Michel, the undisputed leader in world supplies, was almost completely destroyed in the middle of the 20th century by a disease called "*Panamanian fungus*". After that, scientists developed a new variety - **Cavendish**, which can now be found on store shelves anywhere in the world.

Among the unusual bananas, in addition to the already described wild one, **red cavendish also stands out**, which, in addition to the skin of the corresponding color, has a creamy taste with raspberry notes. On the island of Java, you can find a blue banana, and in Florida and Hawaii, **Ae bananas grow**. **Ae**, which in appearance (alternating dark green and light green stripes) are more like zucchini ^[6]. In addition, in many countries of the world, including ours, the so-called "**baby banana**". As the name implies, these are small bananas (up to 12 cm), with a thin skin and creamy flesh. As a rule, they are sweeter than ordinary fruits.

Growing features

Contrary to popular belief, a banana fruit does not grow on a palm tree, but on a herbaceous plant of the same name, which, by the way, along with bamboo, is considered the tallest grass in the world. Leaves overlapping each other in a spiral, from which a false trunk is formed, sometimes reach 12 meters in height. The color of the leaves varies depending on the type and variety of banana (fully green, two-tone - purple-green or spotted - with brown patches). Developing, the banana sheds old leaves, and new shoots appear inside the false trunk.

The flowering period of a banana occurs 8-10 months after planting. A peduncle grows out of the ground through the trunk, forming a complex inflorescence of three tiers of flowers: on top are female flowers that form fruits, below are bisexual, and even lower are male. Pollination occurs due to bats, birds and small mammals. From one inflorescence, several hundred bananas usually develop. The color, shape and taste characteristics of the fruit depend on the cultivar.

The natural habitat of bananas is the territories located in the tropical and subtropical zones. Plants need high humidity, and the optimum temperature ranges from 25 to 36°C. In addition, bananas grow best in acidic soil rich in nitrogen, potassium and phosphorus.

On the territory of Russia, bananas are cultivated only in the vicinity of Sochi, but low winter temperatures do not allow the fruits to fully ripen. As a rule, at a temperature of about 16°C, the growth of a tropical fruit slows down, and at a temperature of 10°C, it stops. A long stay in adverse conditions can lead to the death of the plant.

Despite the unsuitable Russian climate, it is quite possible to grow a banana with edible fruits right in your house or even in an apartment, if you follow some conditions:

1. you need to choose seedlings of dwarf varieties (for example, Musa Super Cavendish Dwarf or Musa Cavendish Dwarf), which reach a height of no more than 1.5-2 meters;
2. the best location for a tropical plant is the brightest place;
3. a banana needs abundant watering and high humidity, if it is not fully provided in the apartment, then the leaves must be regularly sprayed.

In addition, it is recommended to feed the banana every 2 weeks, as well as replant it on time. A sign that the plant is ripe for a larger container is usually rootlets that are visible from the drainage holes. As a rule, a banana begins to bear fruit when it has reached a size suitable for pots with a volume of 30-50 liters.

Selection and storage

Bananas are usually harvested unripe and then transported around the world in cold stores. However, the beauty of this fruit is that it ripens even when it is already plucked from the branch. When choosing bananas, you should start from your goal. If you plan to eat or use the fruit in the next 1-2 days, then you can take bananas with brown dots on the peel. These fruits are already ripe and ready to eat. However, brown or black spots indicate overripeness and the beginning of the rotting process of the fruit.

Naturally, you should check that the banana peel is elastic, without visible damage. Too soft core or light brown spots on it - a sign of overripeness. If you need bananas for the future, then you can take fruits with a greenish peel. You can also use them in this form, but they have a more viscous and less sweet taste, so it is better to let them ripen.

When it comes to storing bananas, 7-10°C is suitable for ripe fruits, and 12-14°C for ripe fruits. Bananas are not advised to be kept in the refrigerator, because at low temperatures the peel quickly turns black (although this does not have much effect on taste). By the way, the advice common on the Internet - to wrap the tails of a banana in cling film for its longer storage - in practice is not very effective.

Diseases and pests

The result of long and painstaking work of breeders was the development of the Cavendish variety, which has excellent taste characteristics, brings good yields and tolerates transportation well. However, for all its merits, there are certain disadvantages that become key when it comes to the viability of the variety. First of all, this is the inability of the plant to develop defense mechanisms against diseases.

The fact is that edible banana fruits can only be obtained from plants that have been propagated vegetatively (planting a shoot). But in this case, the banana ceases to evolve and adapt to the environment, and on the one hand, we always get the same high-quality and tasty crop, and on the other, susceptibility to disease.

Gros Michel variety, bred by breeders, fell into the same trap. In the middle of the twentieth century, it was attacked by the so-called "Panama disease" TR1 (Tropical fungus Race 1), which led to the cessation of large-scale cultivation of Gros Michel. Working on breeding the Cavendish variety, the researchers took into account the characteristics of the disease and made the "new" fruit resistant to it. However, the organisms affecting the fruits continued to develop. As a result, the mutated type of "Panama disease" TR4 threatened the further fate of Cavendish.

However, the complete disappearance of the banana is not yet threatened. Scientists continue to conduct research and try to introduce into a new variety one of the genes of the Indonesian wild banana, which copes well with the TR diseases that exist today. However, this process is slightly slowed down by the fact that seeds are needed for selective selection, and they are extremely rare in edible bananas.

In addition to the "Panamanian disease", the banana is subject to attacks by roundworms and black weevils. Also, problems can arise due to bacterial moko disease or sigatoka fungus, but banana growers have learned to cope with these misfortunes, thanks to chemicals.

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Banana - useful properties, composition and contraindications

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