

BanaNatural

Bananas as nature made them

A large, artistic illustration of a banana tree. The tree has several large, green, veined leaves. Several bunches of ripe bananas are hanging from the branches. The style is painterly and somewhat abstract.

**Integrated innovative
system used for
packing, transferring,
distributing and finally
displaying bananas at the
retail points**

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“

The philosophy of our system is based on simplicity, sustainability and the effective distribution of a sensitive fruit like banana.

”



Lazaros Papadakis The System Inventor

Lazaros Papadakis has been involved in banana wholesaling for **more than 30 years**. He grew up in south of the island of Crete, the only place in Greece where bananas are farmed and grown. Banana farming has been a tradition to his family and many

generations before him which made him appreciate the difficulties of banana trading. After his studies in Physics and Chemistry, he established in 1987 his own wholesale fruit company (known today as Papadakis Ioannis & Co) with its main activity the trading of Greek and imported bananas. Quickly Lazaros came up with a unique revolutionary system of transferring bananas from the farms to the final retail points, what is called today BanaNatural. This system has been adopted by the entire banana market, establishing it as the golden standard of trading domestic bananas in Greece.

Contents

System Description 4

Global Patent 6

Our Success Story 7

How we use it 8

Benefits 10

Key Facts 12

Who we work with 15

Who we are 15

System Description

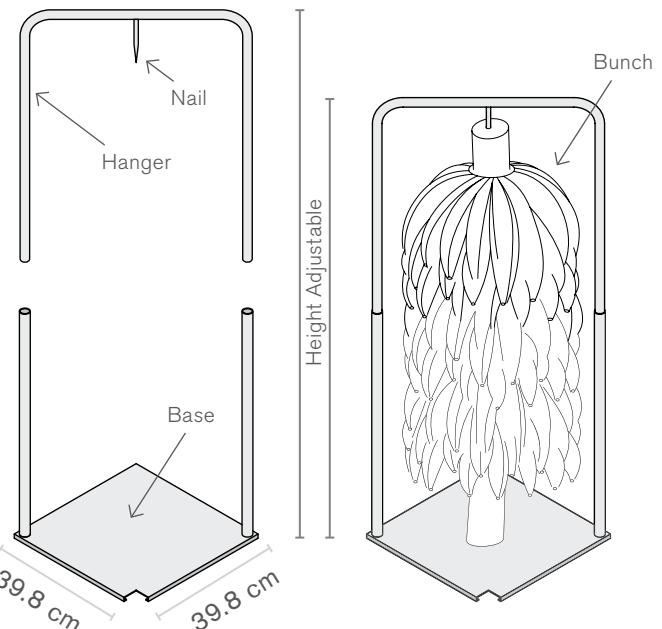
BanaNatural introduces a fully-integrated system, made of **eco-friendly reusable galvanized steel** with a life span of around 20 years eliminating the need for plastic crates and disposable boxes. Bananas on the stand remain attached to the stalk, during all stages, from collection and packaging to selling.

The system consists of **12 stands** and **1 wheeled wagon**.

The Stand

Each stand consists of two parts:

- **Base:** the lower part, a square metal base (39.8x39.8cm) with two attached vertical columns. The minimum height of the stand is 63cm and the maximum 120cm covering most banana bunch sizes.
- **Hanger:** the upper part, a reversed “U” shape tube of smaller diameter to fit into the columns of the base with a metal nail in the middle of the tube to go into the stalk and hold it still.



The stand's height is adjustable depending on the size of the banana bunch.

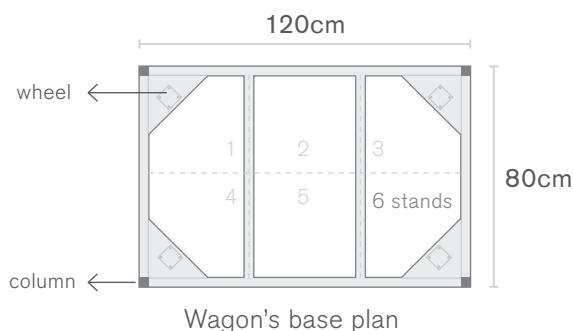


The stands with the banana bunches in different heights.

The Wagon

The wagon consists of two levels:

- **Base:** the first level with 4 wheels attached. Its dimensions are the same as a Euro-pallet i.e. 80x120cm.
- **4 Columns:** placed on the 4 corners of the base. Their height is 165cm.
- **Rack:** the second level which locks in the 4 columns of the base at different heights.



Wagon's base plan



The rack's height is adjustable depending on the height of the stands below.

12 Stands in 1 Wagon

After whole banana bunches are nailed on the stands, 6 stands are placed on the base of the wagon and another 6 stands on the second floor. In total each wagon carries 12 stands.

Both wagon and stands are easy to assemble without the need of any tool.



2 wagons with 24 empty stands.



System fully used. Loaded stands with bananas on wagons

Global Patent

Due to the uniqueness of this system, we applied for patent protection. An international patent application was filed with the International Bureau of WIPO (World Intellectual Property Organization) and a patent was granted for our invention in several countries.

North America:

- USA
- Mexico

South America:

- Brazil

Europe, the Middle East, Africa:

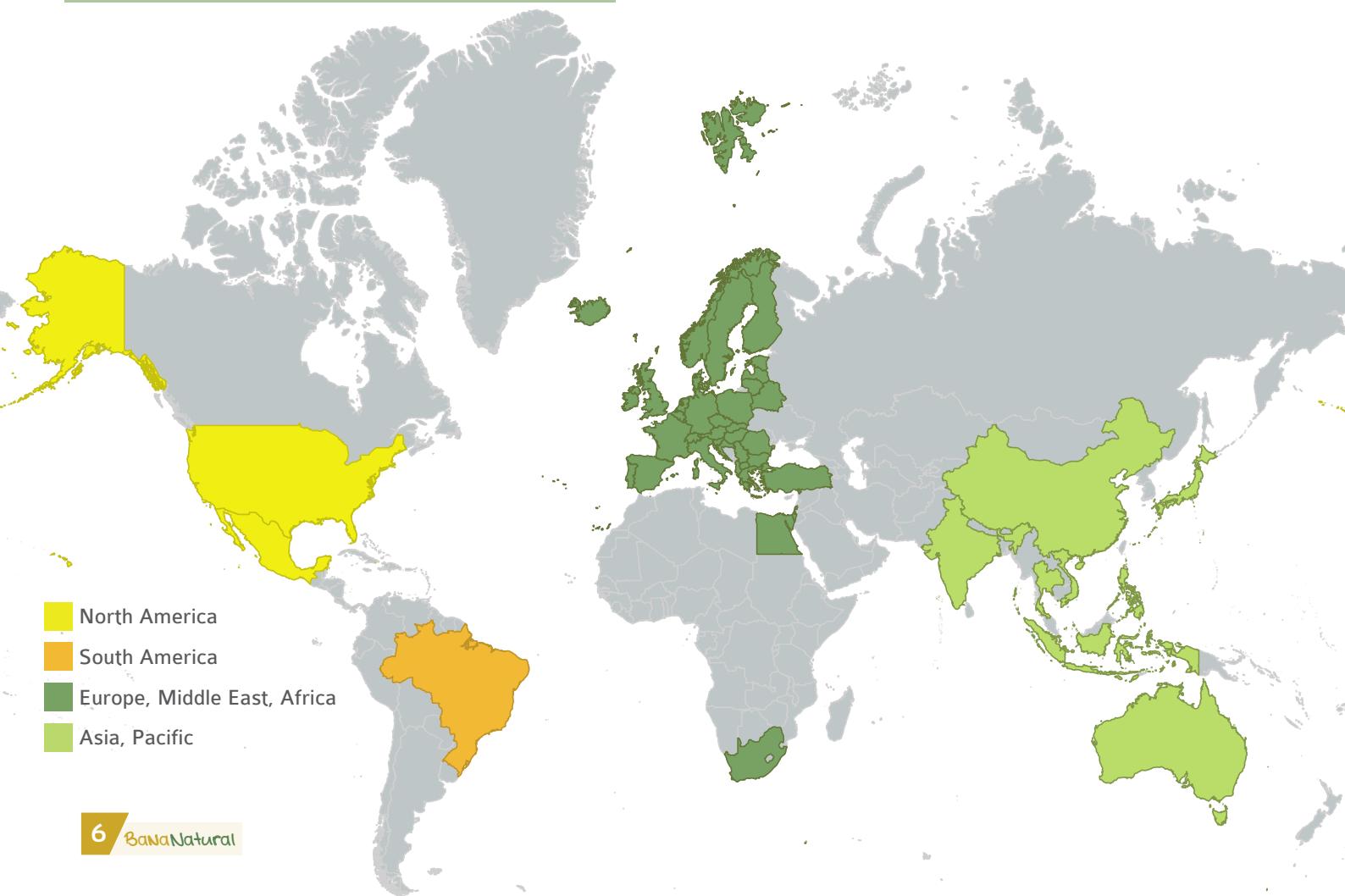
- Europe
- Israel
- Egypt
- South Africa

Asia, Pacific, Oceania:

- China
- Indonesia
- India
- Japan
- Philippines
- Vietnam
- Thailand
- Australia

US patent (granted by USPTO) on WIPO:

<https://patentscope.wipo.int/search/en/detail.jsf?docId=US175074176>



Our Success Story

This system was firstly commercialised by our family-owned fruit wholesale company (Papadakis Ioannis & Co) to trade domestic bananas in Greece. In short period of time, the system was adopted by the market and today is widely used to trade successfully the whole Greek banana production.

Proof of Concept

We use the system throughout the entire banana supply chain, from harvesting and packaging to ripening and finally displaying bananas in supermarkets. The use of the system has been proved to add value to each supply chain stage separately. Owing to the several benefits of trading bananas in this way, our company managed to gradually increase its profits and grow organically. To meet the increasing demand for bananas on stands, we recently started importing Cyprian bananas as well into the Greek market using our system. Ultimately this new concept has changed the banana market dynamics in Greece.

Our Mission

Our mission now is to introduce our way of trading bananas to other markets and explore potential collaboration opportunities with other companies of relevant experience in trading fruits.



Our company's premises in Greece (Papadakis Ioannis & Co)



Stages of the process

How we use it

1



Harvesting

In Greece banana plantations are located in the island of Crete. Whole banana bunches are harvested from domestic production sites and gathered for packaging to take place.

Washing

Quick spraying with water can take place to remove any debris. However, as banana bunches are not chopped in hands, there is little latex on the two cuts made on the top and bottom of the stem and therefore there is no need for large water pools.

2



Packaging

Without any further cutting or handling, the whole banana bunch is placed on the stand. Later the stand is wrapped around with cling film to keep the bunch stable.



Transferring

Stands with bananas are placed on wheeled wagons and then trucks are loaded with wagons to be transferred to ripening chambers. The smart Euro-pallet dimensions of the wagon make full use of truck's width and height.

8

3



5

Ripening

The wagons are easily moved on their wheels into ripening chambers without the need of any pallet jacks. This system also allows bananas to ripe uniformly.

6

Distributing

Stands with bananas are transferred to retailers either on wagons or in carton boxes on Euro-pallets. The system is flexible with all logistical processes.

7

Displaying at retail points

The stand with the banana bunch is displayed in supermarkets and other retail stores where customers cut as many bananas as they want from the stalk.

8

Returning for reuse

Both stands and wagons are reusable. After the retail points, they are collected, dismantled and sent back to packing house to start the next banana supply cycle.

Benefits



1. Reduced man-hours

No need for activities such as: separation of banana hands from the stalk, washing off the latex, fungicide application on each hand, classification, labelling, packaging in carton boxes and palletizing. This results in time saving.



2. Easy and cost-effective packing

Simplified and ergonomic packing operations. There are less packing house costs due to reduced packing plant operations (such as moving belts and big water pools) and reduced labour costs.



3. Reusable materials

Reduced banana's carbon footprint. The whole system is environment-friendly and sustainable as it can be reused. The distribution of bananas on stands is free from most of the disposable materials (less cartons, wheels instead of pallets, reduced plastics).



4. Low energy costs

No demand for pallet jacks because of the wheeled wagons. Also, there is no demand for high pressure ripening chambers as bananas are not surrounded by boxes. Instead, standardised conventional ripening chambers of lower power consumption can be used.



5. 100% product sale in supermarkets

When bananas are loose on shelves, customers can touch and squeeze them before they buy, which turns bananas brown with bruises increasing supermarket waste. When bananas are on the stands, customers cut them directly from the stalk helping to maintain a healthy fruit appearance.



6. Better product quality

Better and longer preservation. Bananas remain connected to the stalk from where they get all the natural juices and remain fresh for longer period of time. Also due to no fungicide application, no chemicals are absorbed into fruit's tissue.



7. Effective marketing strategy and increased profits

Banana bunches attract more customers as they feel that they cut naturally bananas from the tree. This strategy has proved to increase supermarket sales even though the price of bananas on the stand is more than 1.5 times higher than the price of bananas on the shelf.

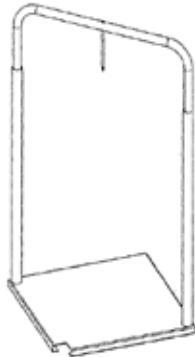


8. Minimum space for return

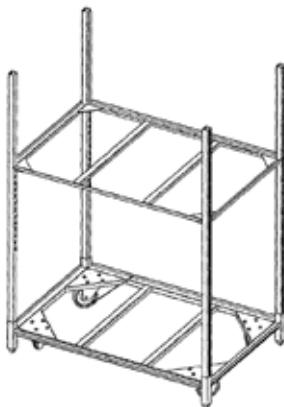
The space needed for the return of the disassembled system is 6 times less than that of the assembled one. Therefore, the cost of returning the stands and wagons from retail points to packing facilities is low.

Key Facts

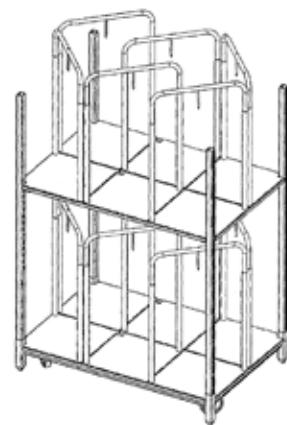
System Weight



one stand
6.5 kg

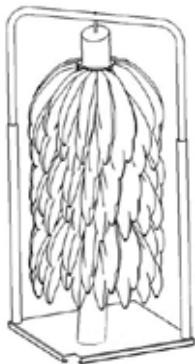


one wagon
42 kg

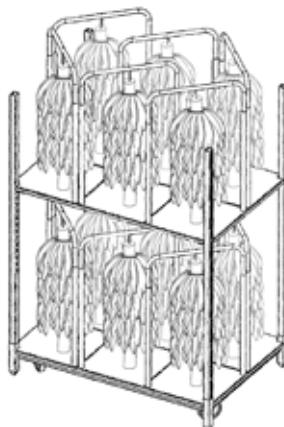


one wagon with 12 stands
120 kg

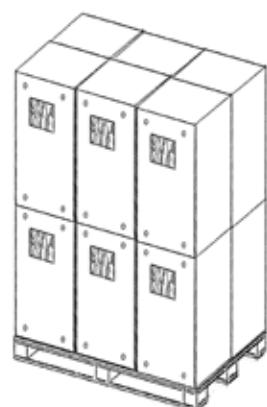
Gross System Weight with Bananas



one stand with bananas
≈ 35 kg*



one wagon with 12 stands
≈ 460 kg



12 stands in boxes on Euro-pallet
≈ 460 kg

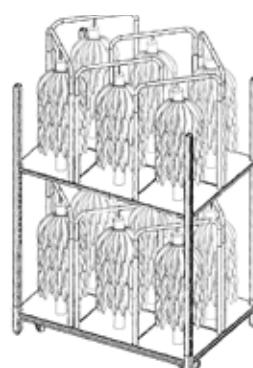
*weight ranges from 15-50kg depending on banana bunch size

Net Product Weight



≈ 26 kg

(8-10% deducted for stem weight + wastage)



≈ 312 kg

Returning the system



12 loaded wagons with
≈ 3.7 tones
banana net weight

they return in 2 Euro-pallets
**they need 1/6 of
initial space**

Pricing and Profits



on shelves



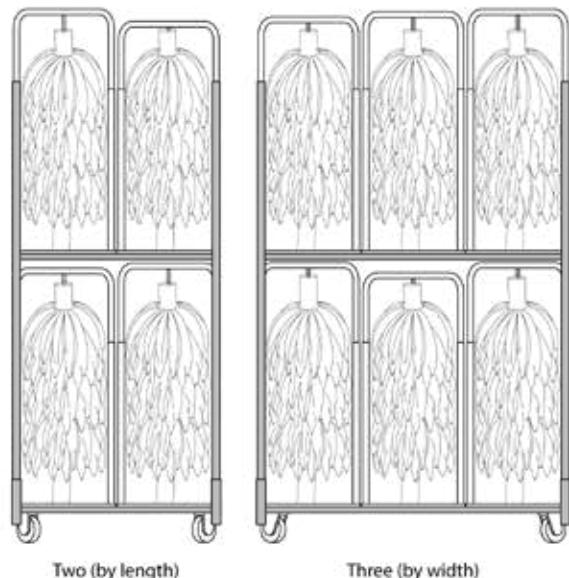
on stands



Note:

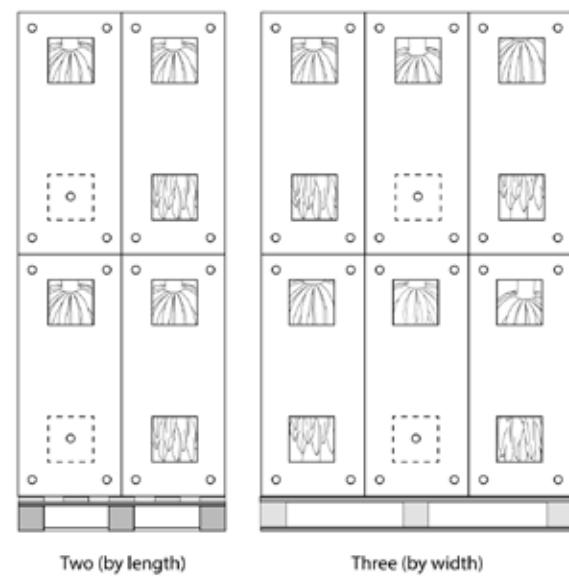
Bananas on the stand are sold at almost double the price compared to loose banana hands on the shelf. Selling bananas this way returns 3 times greater profit to our company than selling imported banana hands in carton boxes.

On Wagons



Due to their smart design the wagons with stands can be easily fitted in trucks.

On Euro-pallets



The system is flexible with all logistical processes as the stands can be transferred into boxes on Euro-pallets.

Who we work with

Retailers

We have been supplying our stands to the biggest supermarket chains in Greece, some of them having global presence. Through our successful collaboration we have gained their trust and succeeded in creating and maintaining a high demand for bananas on stands.



Who we are

Meet our core team



Lazaros Papadakis
Managing Director/Patent Inventor



Giannis Papadakis
Operations Manager



Marilena Papadaki
Business Development Manager



Lefteris Sergios
Business Development Manager



Stelios Spyridakis
Ripening Manager



Filippos Kourkoulos
Production Manager

Do you want to find more about BanaNatural?

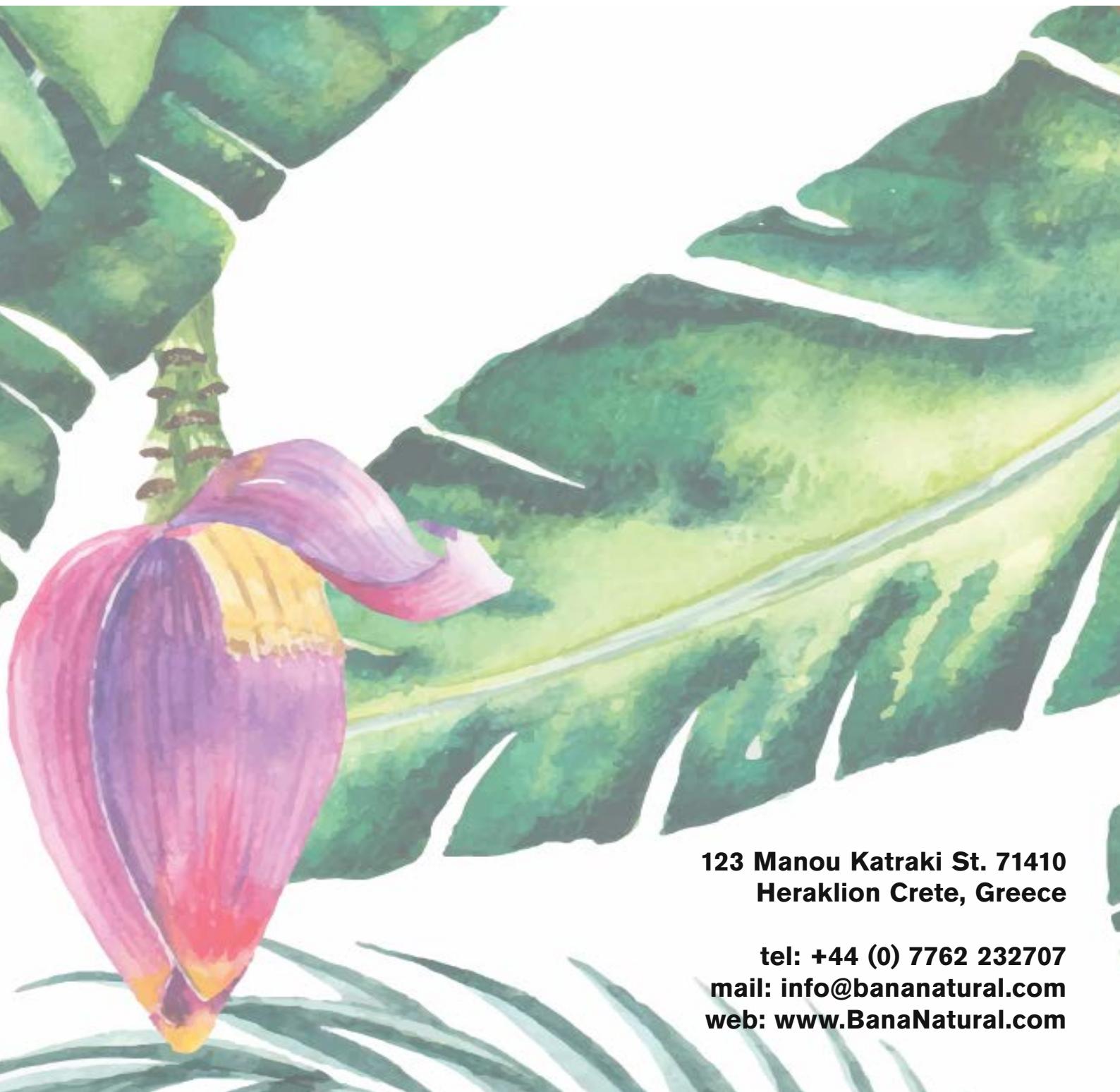
Visit our website www.bananatural.com or send us an email at info@bananatural.com. We are happy to answer any questions you might have.

Are you looking to grow your business or invest in new opportunities?

Get in touch with one of our representatives to talk you through our successful business model.

Have you ever been to Greece?

We would like to invite you at our premises in Heraklion Crete and show you around our supply chain, so you can see for yourself how our system works and its several benefits.



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