Vinomatos presents the “Turnkey” program

In the beginning, there is a machine developed by Georges Mandrafina, the machine’s inventor and company’s owner.

Our company has a large experience of 30 years in what refers to vineyard planting in the most beautiful lands of France. Regarding olive trees planting, Vinomatos has worked with the most advanced technology and professionalism. The company is established in Portugal since 1997.

In this country, we have been working with our engineers, and we are producing the most advanced planting machines: the planting machines of the future!

The story began in Bordeus’s vineyards, in 1982, where the first laser machines produced by Georges Mandrafina were born.

Since then, the machines have been being developed and, nowadays, they are GPS-guided, with huge precision.

Each year, Vinomatos plants millions of trees around the world. In France, we have been working with the most important vineyard names and companies.

Our company is one of the most important companies in what refers to mechanized planting, In Andaluzia, Vinomatos has planted thousands of olive trees.

Today, some plantations are 15 years-old and everyone can confirm the olive trees growing process.

Vinomatos is specialized in Turnkey programs that ensure to the owner or investor a complete support during all the process: our technicians will monitor the cultures thanks to our engineer's skills and our technicians on site.

Above, a 400 Ha plantation of olive trees in super intensive, carried out in 25 days of work with 4 "Oliva Mandrafina" machines in parallel, guided by GPS, in Karia ba Mohamed, near Méknes, in Morocco.

We present our Turnkey project:

- Research and land analysis

- Professional advices about the best methods to improve your project

- Land preparation

- Fertilisation

- Implementation of Irrigation system

- Planting process

- Implementation of trellising system

- **Provided material**: fertilizers, irrigation system, plants, bamboo canes, trellising, mechanical and hydraulic material as well as GPS.

4 proposals:

Proposal A:

Suitable for investors, with land analysis and turnkey project

Proposal B:

Suitable for owners

Proposal C:

Suitable for owners, this proposal is adaptable to all your needs: a simple plantation with or without land preparation, for example.

Proposal D:

Suitable for investors, this proposal ensures all operations: from the company formation to the implementation of trellising system;

1- Land and soil analysis

Land analysis

Vinomatos will suggest the most appropriate land and vineyard type, giving the warranty of investment

return, thanks to our viability study.

Our teams are constituted by agricultural engineers who work in collaboration with people from the country. These certified professionals know the land features of each region and they are responsible for studying the land potential, water resources and workers availability.

2) Soil study: description

The study allows to recognize the land and to make an analysis to settle on:

- If the land is able to be cultivated
- Which plants can be used in your region
- The appropriate fertilizing program

This study has different phases:

a) **Digging a hole of 1,5m with the help of a backhoe loader** (it's necessary 4 or 5 holes to a 100 ha area) This first phase refers to a visual analysis in order to understand the land features, either it's clayey, or rocky, sandy or clayey limestone soil.

b) First removal of a 50cm top layer sample in order to make the vegetal land analysis.

c) Second removal of lower layer

This way, we can analyze 2 samples of land, allowing a reliable report in what refers to land viability.

d) Analyses comment

i. This comment will conduct to the implementation of a rational fertilization program.

ii. Work program introduction

II- Plantation: "Turnkey" proposal

Land preparation and cleaning

Most of cases, lands need to be cleaned and sometimes it's necessary to remove some trees and stones.

This work is totally integrated in the "turnkey" program. The material is furnished (tractors, backhoe loaders and trailers), ensured by the human resources on site, constituted by technicians that will assume the responsibility of the cleaning work.

Fertilization

After the analysis comment above, we start a fertilization program, with all the fertilizers needed to landing preparation.

All our products are natural and biological, properly tested, used and recognized worldwide.

The fertilizers installation is done with the appropriate material (tractors, spreaders, trailers) always furnished by us.

Landing preparation

a. Subsoiling
b. Disc passage
c. Grid passage

Landing preparation starts with subsoiling with 60 cm depth and after this process, we will do a second passage wit discs harrow, in order to obtain a looser and flexible soil .

Land Preparation

Irrigation system implementation

Drip Irrigation system

The drip irrigation system allows the economic and rational use of water resources and an it is an important element against soil degradation, in order to protect the environment and manage the natural resources.

a) Implementation study: it will be announced in the framework of the study, to determine the need of one or more irrigation wells. An in-depth study will be done to define and decide the installations according to the requirements of the project crop.
b) Implementation of drip irrigation system
c) Action plan for the implementation of drip irrigation system

An example of drip irrigation system implantation (600 ha project)

Planting process

The machine opens a furrow 30cm deep, plants the stake, positions the young plant after the stake, and the earth begins to cover the plant. The machine waters it and finally the furrow is closed by two parts mounted on a parallelogram. The functions are controlled by the robot, which gives precise points to plant the stake, positioning the young plant and watering it. It aligns the plants on the line and its perpendicular and it determines the distance between ranks.

The robot obtains data from its satellite data system, thanks to a ground base which gives a reference point and a mobile base in the truck which allows knowing the position of the planting ploughshare to within about a centimeter.

FMX Trimble display with GPS receptor, placed on the tractor, allowing the operator to control all the planting process.

Planting machines operating mode


OLIVA

The planting machines work in parallel, all guided by GPS. The non-stop supply of the plants takes place through tractors and trailers that connect permanently the nursery and the planting site.

Implementation of trellising system

- Distribution of posts and stakes
- Connection to the main post

- Unroll of iron wire
- Tension

Proposal B:

(consult proposal A, regarding Turnkey project)

Proposal C:

This is the proposal adapted to your needs

You don’t need neither to be a great investor, nor a big project of 10000 ha to request our services!

- Your property has a restructuring project

- You want a more intensive and profitable project

- You need the support of competent and specialized technicians

Vinomatos ensures all the support and professionalism during all the project, whether you chose “Turnkey Project”, with or without land preparation. Your experience is very important for us, jointing our technology with our environment concerns.

Proposal D:

If you don't that have time to dedicate yourself to the project but you still want to participate in the sustainable development of agriculture, this is the ideal formula for you. You can invest in modules from 500 Ha to 2000 Ha, without administrative concerns.

- We create a company for you
- We analyze the ideal sector and implementation project
- We send you the results of our analysis and research
- After your approval, we dedicate ourselves to the project, as you can read in "Turnkey project" proposal

  . Land analysis
  . Evaluation: professional advices to determine plant varieties, fertilization methods and cultures, as well as the profitability of the projects.
  . Land preparation
  . Fertilization
  . Implementation of irrigation system
  . Planting process
  . Provided material: fertilizers, irrigation systems, plants, canes, trellising material and all mechanical material, as well as hydraulic and GPS;
  . A pedagogical mission to respect the environment