



Anwendungsbericht/User Application Report

Produkt/Product:

penergetic b
penergetic p

Fachberater/Consultant:

Alessandra V. Martins
Luiz Eduardo E. Melo
Humberto Machado

Anwender/User:

Alberto Nascimento
Holambra/Paranapanema/SP/BR

Datum/Date:

2014

Application on peach trees in Brazil

Effect of the Penergetic Technology on the soil parameters, on the fruits sizes, shelf life and productivity of c.v. Kampai Peach trees carried out by Holantec Fruticulture Consultancy.

Objective

Evaluate the performance of the Penergetic technology in bioactivating the soil and the plants of c.v. Kambai Peach trees. The applications were realized on the fields of Holambra in the state of São Paulo, the largest producer of flowers and ornamental plants in Latin America and organizer of the largest spring event of the continent: Expoflora.

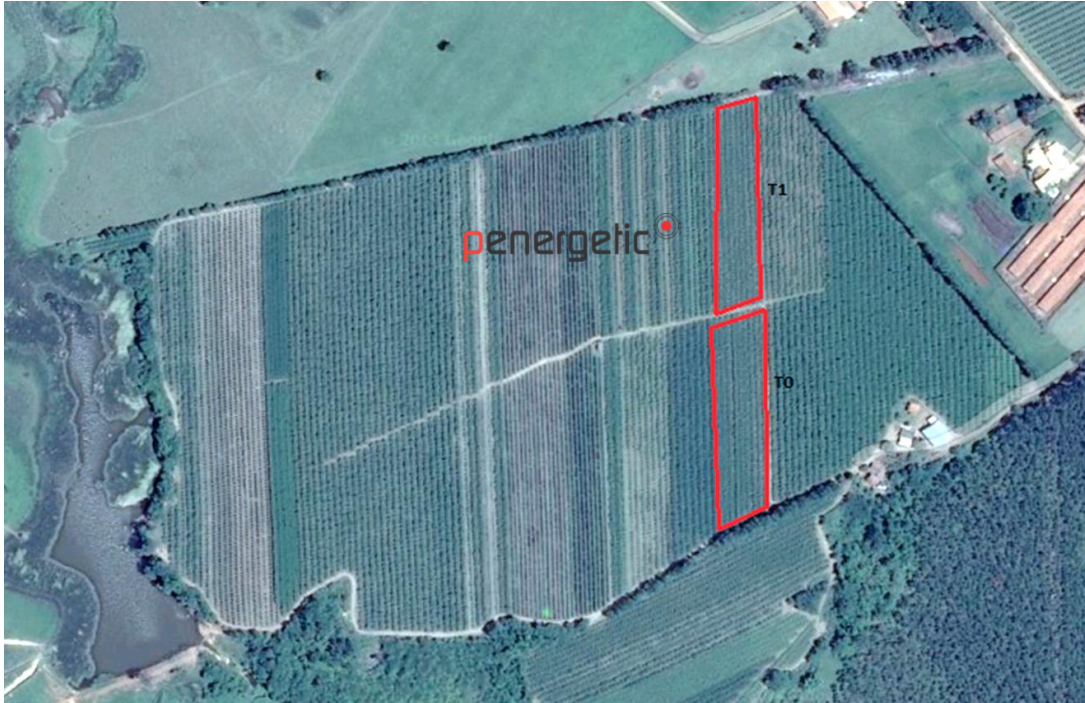
Treatment description

- T0: Control Farm Standard
- T1: Penergetic Farm Standard + penergetic b – 600g/ha + penergetic p – 600g/ha.

Application table

Date	Product	Quantity	Period
18 June	penergetic p	200g/ha	filling of the gems
26 June	penergetic b	600g/ha	humid soil, break of dormancy
30 June	penergetic p	200g/ha	post flowering
15 Aug.	penergetic p	200g/ha	stone-hardening

Experimental area



Demarcation of treated area (T1) and the control (T0) (Google Maps)

Evaluated Parameters

- Macro and micronutrients of the soil, total phosphorus and phosphorus on resin. Two samplings will be performed: one at the beginning of the vegetative cycle and one analysis after 6 months.
- Evaluation of the size of branches.
- Fruit shelf life in three evaluations with weekly interval.
- Chemical analysis of the fruits of each treatment.
- Productivity: post-thin out fruit count, harvest at the beginning of production, in full production and final production.

Fruits evaluation Date

Harvest days		0 days	3 days	5 days	7days	10 days
1	06 Oct.	06 Oct.	09 Oct.	11 Oct.	13 Oct.	16 Oct.
2	09 Oct.	09 Oct.	12 Oct.	14 Oct.	16 Oct.	19 Oct.
3	13 Oct.	13 Oct.	16 Oct.	18 Oct.	20 Oct.	23 Oct.

Fruit caliber, firmness and brix - 1st harvest, Oct. 06

Evaluation 1	Caliber	Firmness	Brix
Control	55,8	9,8	10,6
Penergetic	60,2	10,7	9,9
Evaluation 2	Caliber	Firmness	Brix
Control	27,4	0	14,4
Penergetic	48,8	0	15,2

Photo from the fruits of the 1st harvest



Photo: Agronomic Engineer. Alessandra V. Martins (Holantec R&D)

Fruit caliber, firmness and brix - 2nd harvest, Oct. 09

Evaluation 1	Caliber	Firmness	Brix
Control	52,4	8,2	10,6
Penergetic	56	8,4	9,6
Evaluation 2	Caliber	Firmness	Brix
Control	41	0	14,6
Penergetic	45	0	15,6

Photo from the fruits of the 2nd harvest



Photo: Agronomic Engineer. Alessandra V. Martins (Holantec R&D)

Fruit caliber, firmness and brix - 3rd harvest, Oct. 13

Evaluation 1	Caliber	Firmness	Brix
Control	51	7,9	11,6
Penergetic	52	3,4	13
Evaluation 2	Caliber	Firmness	Brix
Control	43,4	0	15,2
Penergetic	47	0	16,2

Photo from the fruits of the 3rd harvest



Photo: Agronomic Engineer. Alessandra V. Martins (Holantec R&D)

Evaluation of the productivity

Number of Fruits	Average of 3 plant (fruits/plant)	Fruits/ha	Increase in % of fruits	Increase in No. of fruits
Control	275	183.150	-----	-----
Penergetic	306	203.796	+ 11,2	+ 20.646

Weight	Weight average of fruits (g)	kg/ha	Increase in % of weight	Increase in fruits weight kg/ha
Control	84,66	15.505	-----	-----
Penergetic	88	17.934	+ 15,7	+ 2.429

Economic viability

Cost-Benefit Ratio	Productivity (kg/ha)	Average Price (kg)	Income
Control	15.505	R\$ 1,80	R\$ 27.909,00
Penergetic	17.934	R\$ 1,80	R\$ 32.281,20

Calculating....

R\$	32.281,20	Penergetic
R\$	- 27.909,00	Control
R\$	= 4.372,20	Difference +
R\$	- 408	Costs Penergetic
R\$	= 3.694,20	Benefit per hectare with Penergetic!!

Farm Standard



Photo: Agronomic Engineer. [Alessandra V. Martins](#) (Holantec R&D)

Farm Penergetic



Photos: Agronomic Engineer. [Alessandra V. Martins](#) (Holantec R&D)