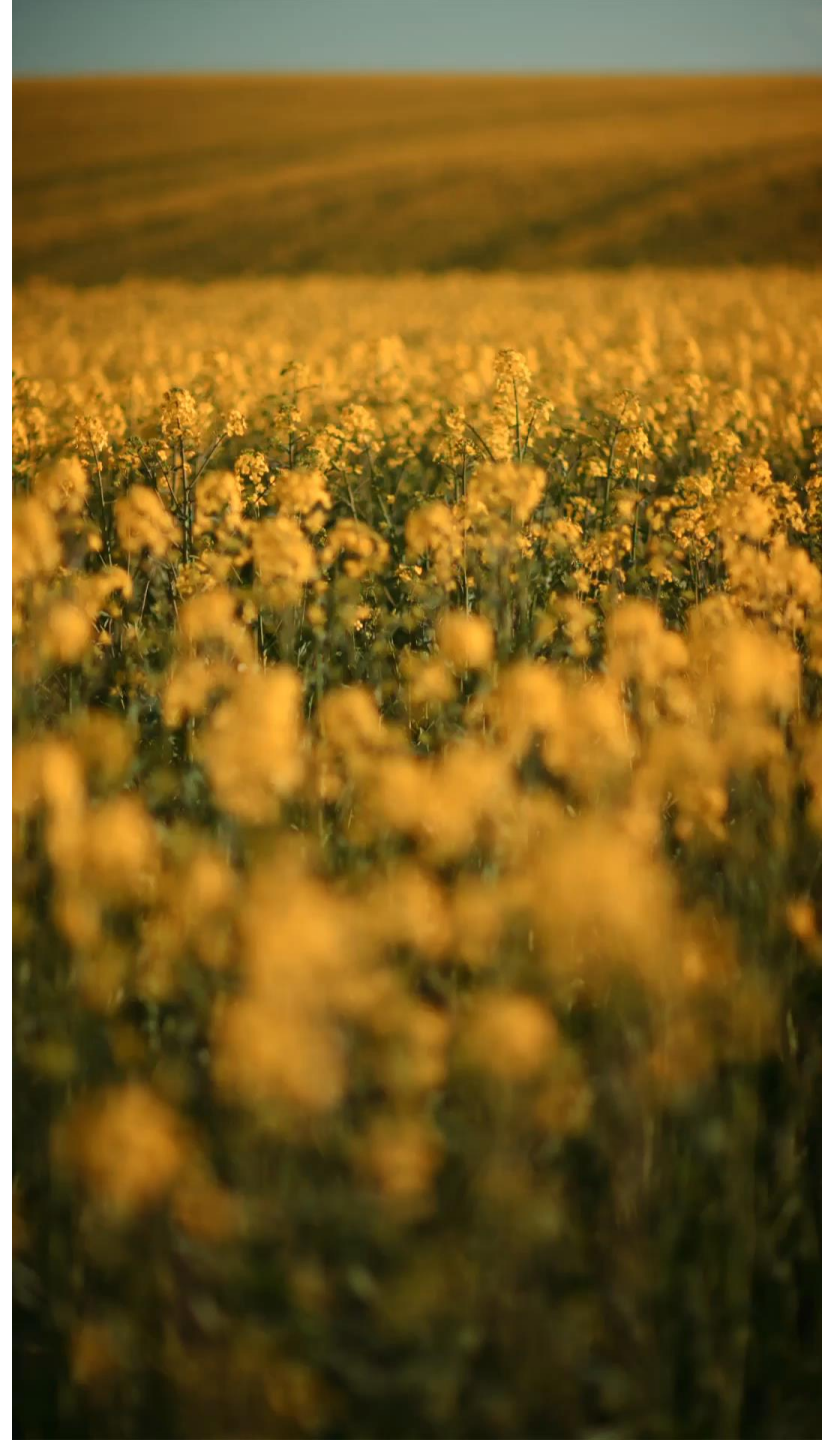




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EXAMPLES OF CROPS



Types used

	P310	P03
Diameter	3-10 mm	0-3 mm
Density	Approx. 430 g/l	Approx. 1000 g/l
Water volume retained	165 ml / l	533 ml / l
Water retention rate (volume)	16,50 %	53,33 %
Water retention rate (weight)	38,31 %	53,59 %
Basic dosage*	10% of soil volume	5% of soil volume

* Rooting volume



Crops used on

Vegetable crops

High density

Low density

Fruit trees

Orchards

Date Palm

Other

Soilless

Chives

Berries



Application on Vegetable

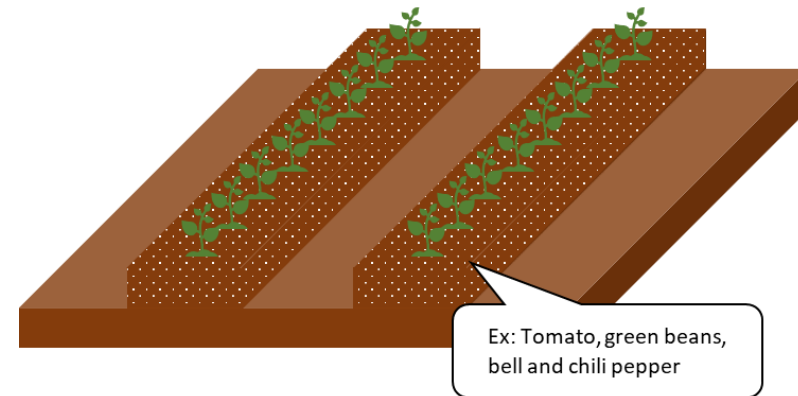
High density : Application

Crops with a density higher than 6000/ha, or distance between plants $\leq 40\text{cm}$

Dosage: 5L / linear meter on bed (P310)

2,5L / linear meter (P03)

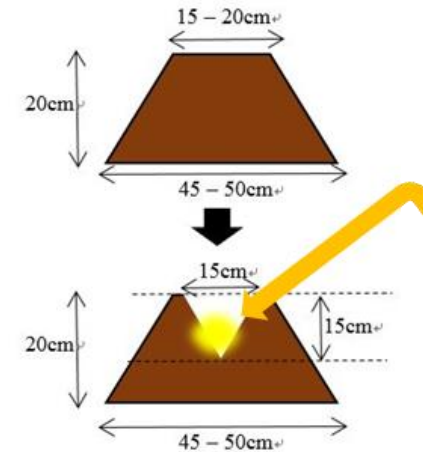
Timing: Before covering the soil in mulch (plastic)



Apply before the bed is made



Or after the bed is made



Vegetable crops

High density : Crops with a density higher than 6000/ha, or distance between plants =< 40cm

Producer	Campaign	Crop	Water/Fertilizers decrease	Yield comparison	% increase	Soil tillage
CATV	1 st	Round tomato	-48%	PA (95.2 t/ha) > No PA (74.6 t/ha)	+27.6%	None
	2 nd		-46%	PA (24.2 t/ha) > No PA (20.2 t/ha)	+19.8%	
	1 st	Green beans	-45%	PA (58.5 t/ha) > No PA (48.1 t/ha)	+21.6%	None
	2 nd	Flat beans	-44%	PA (22.2 t/ha) > No PA (20.6 t/ha)	+7.7%	
S	1 st	Cherry tomato	-46%	PA (85.1 t/ha) > No PA (83.0 t/ha)	+2.5%	One way tillage
	2 nd		-31%	PA (112 t/ha) > No PA (107 t/ha)	+4.6%	
AZ	1 st	Cherry tomato	-50%	PA (95.3 t/ha) > No PA (91.2 t/ha)	+4.5%	N/A
DA	1 st	Melon	-50%	PA (61.7 t/ha) > No PA (51.3 t/ha)	+20.2%	N/A
AM	1 st	Chili Pepper	No decrease	PA (89.1 t/ha) > No PA (67.1 t/ha)	+32.8%	Localized tillage
	2 nd	Green beans	No decrease (double density planting)	PA (26.9 t/ha) > No PA (18.9 t/ha)	+41.3%	



Vegetable crops



High density : Cherry Tomato

Target crop	Cherry Tomato
Region	Chtouka (Agadir, Morocco)
Condition of farm	Greenhouse
Irrigation system	Drip irrigation

Result of Porous Alpha Trial

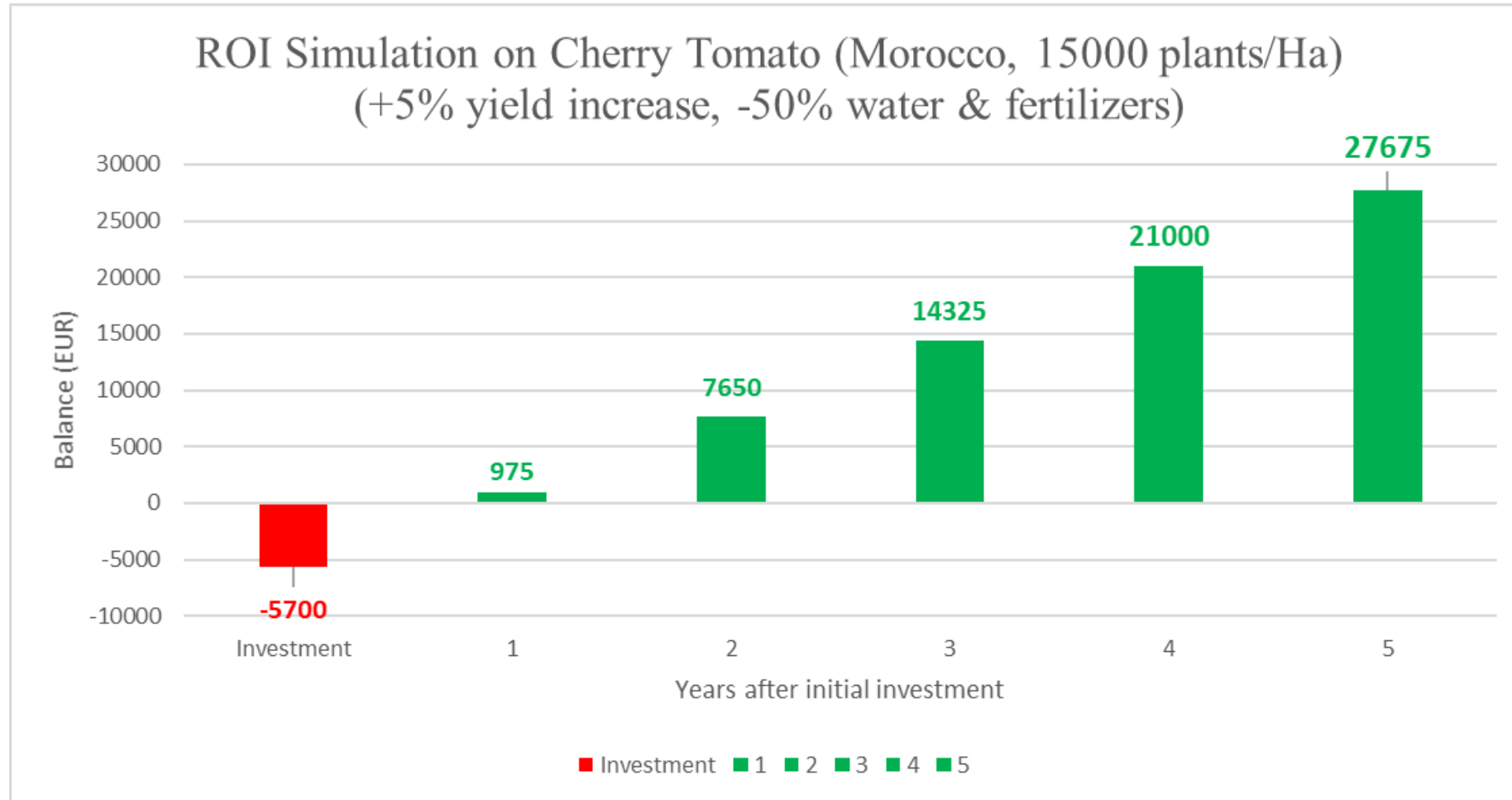
	Water Consumption	Fertilizer Consumption	Yield
Control	3.557 m ³ /ha	4.400 kg/ha	89 t/ha
Porous Alpha	1.919 m ³ /ha	2.500 kg/ha	91 t/ha
Difference	- 47 %	- 47 %	+ 2,2 %

	Test Group	Porous Alpha	Improvement rate
Water efficiency (l/kg)	39.96 l/kg	21.08 l/kg	48.3 %



Vegetable crops

High density : Cherry Tomato



Vegetable crops

High density : Round Tomato



Target crop	Round Tomato
Region	Chtouka (Agadir, Morocco)
Condition of farm	Green house
Irrigation system	Drip irrigation

Result of Porous Alpha Trial

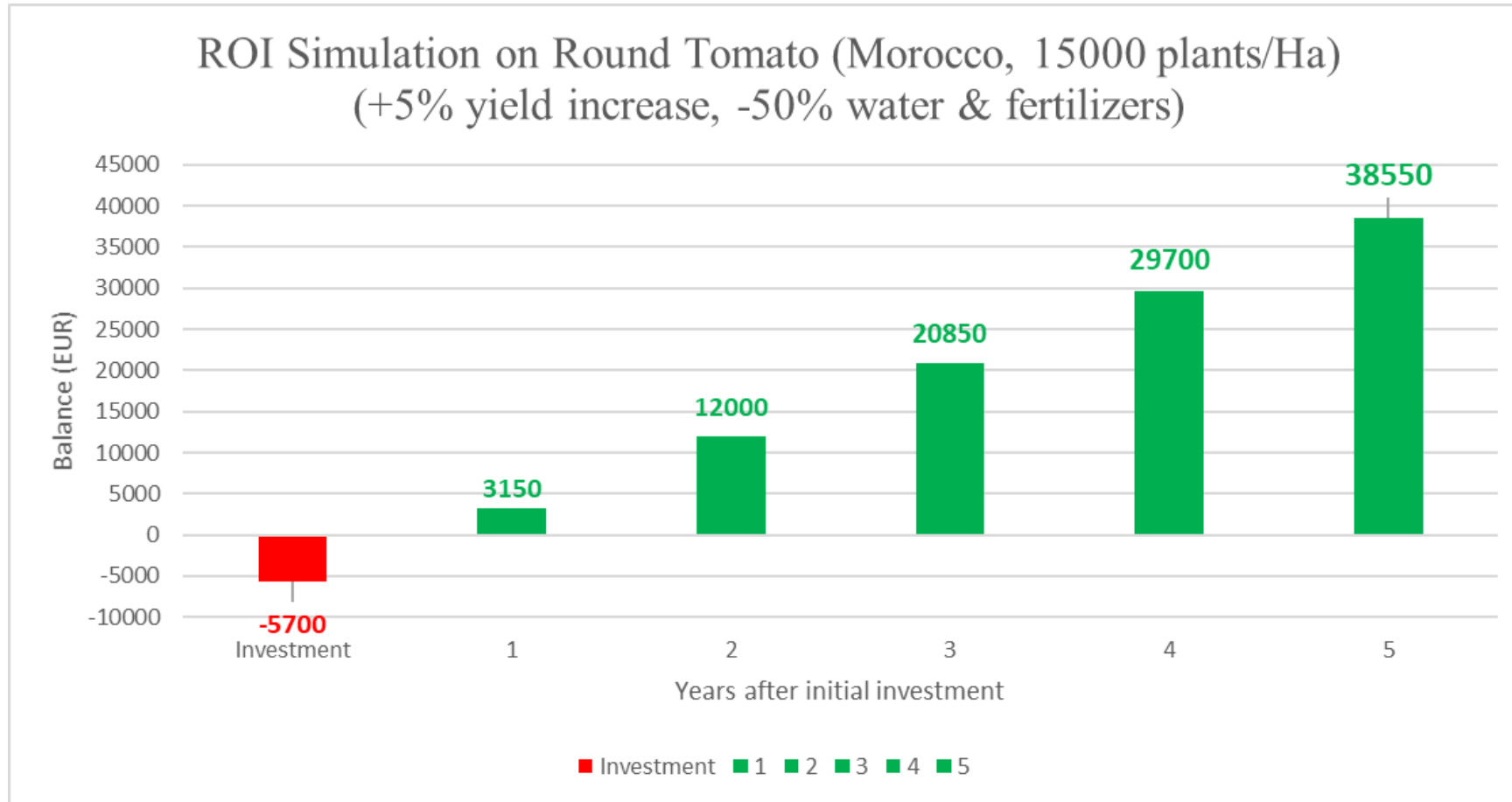
	Water consumption	Fertilizer consumption	Yield
Control	2.600 m ³ /ha	4.000 kg/ha	202 t/ha
Porous Alpha	1.490 m ³ /ha	2.280 kg/ha	213 t/ha
Difference	- 43 %	- 43 %	+ 5,3 %

	Test Group	Porous Alpha	Improvement rate
Water efficiency (l/kg)	12.87 l/kg	6.99 l/kg	45.7 %



Vegetable crops

High density : Round Tomato



Vegetable crops

High density : Special case on Green beans cv. GEA

We tested PA on double density with same water and fertilizer



Double density (with PA)

**Same watering
and fertilizing**



Normal density (control)

Conditions	With Porous Alpha	Control
Area (Ha)	1	1
Plants / Ha	21 478	10 414
Yield (Kg)	26 791.3	18 958.6
Increase rate	+ 41.3%	



Vegetable crops

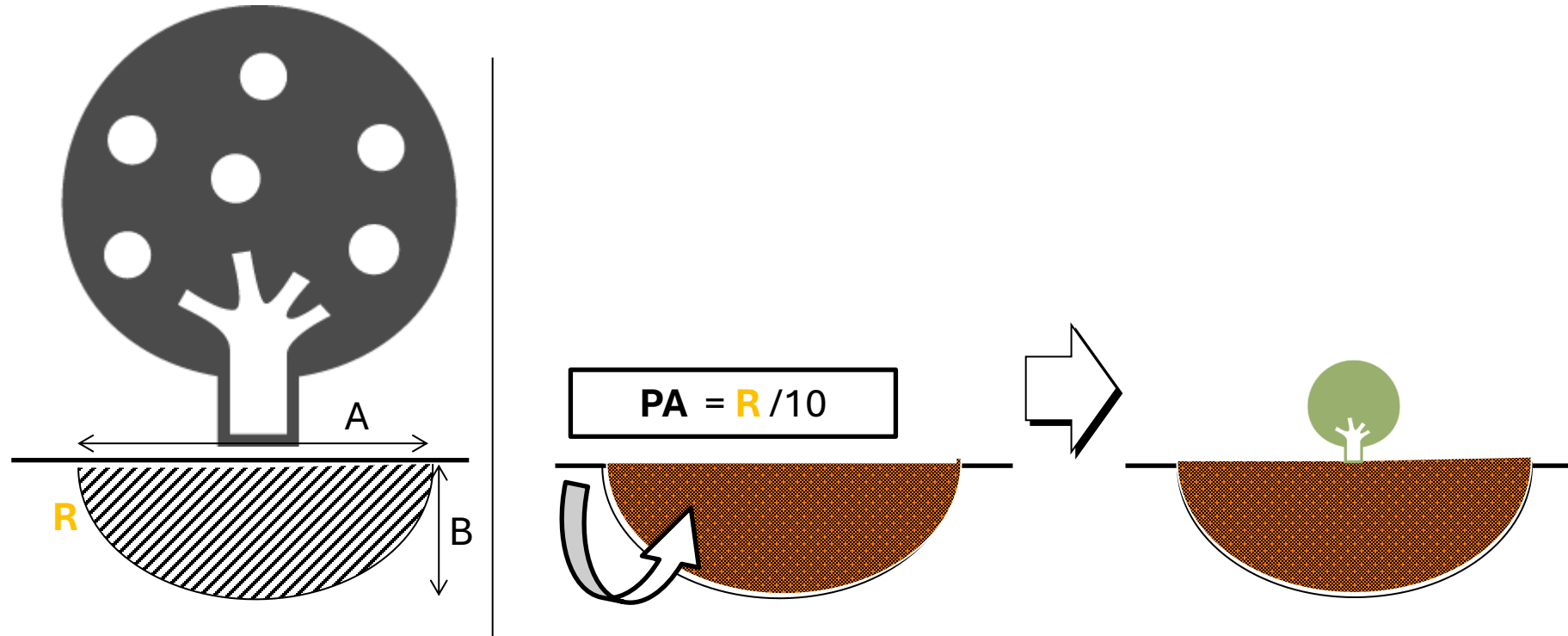
High density : Green beans cv. GEA

With Porous Alpha, the producer could harvest **+41%** more yield with same watering

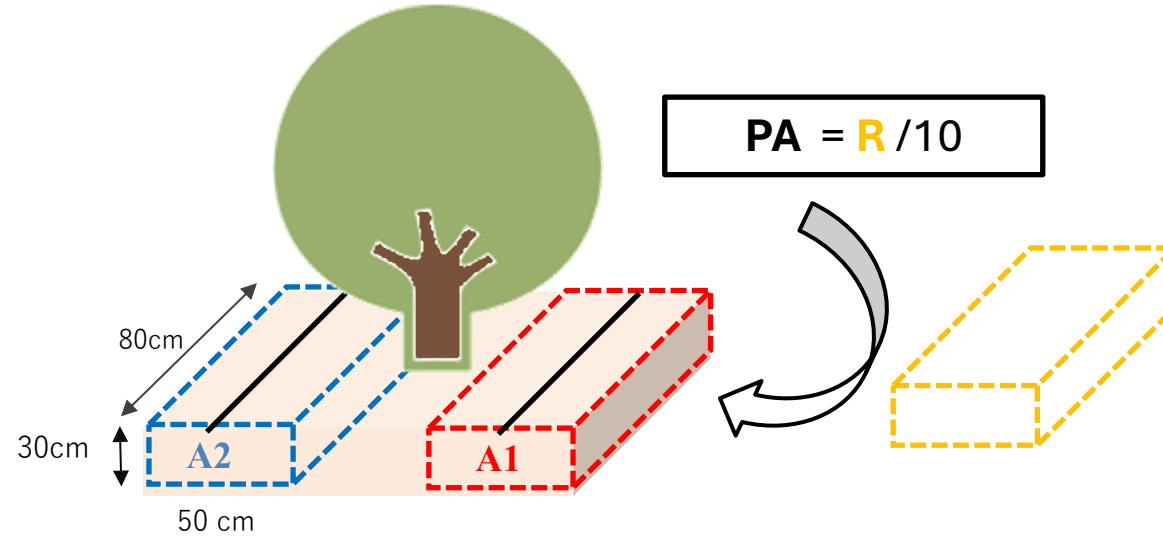
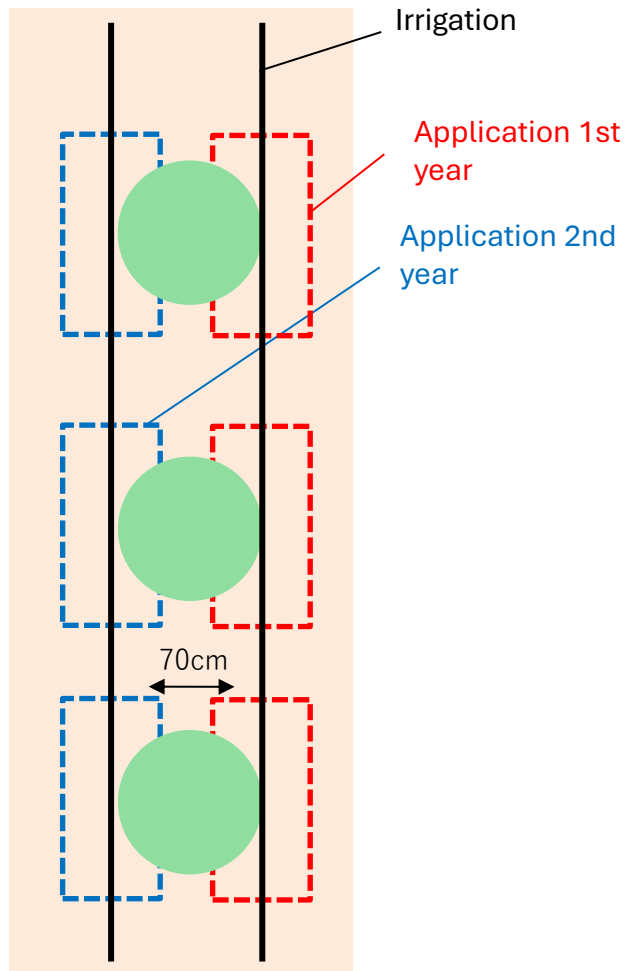
		Profit per Ha	
		With Porous Alpha	No Porous Alpha
Income	Yield (Kg)	26 791.3	18 958.6
	Unit price (Eur/Kg)	0.7	0.7
	TOTAL (A)	19 804.1	14 014.2
Expense	Seed (Eur)	1 112.4	539.3
	Fertilizer (Eur)	1 123.0	1 123.0
	Irrigation (Eur)	859.1	859.1
	TOTAL (B)	3 094.4	2 521.4
Profit (Eur)		16 709.7	11 492.8
Generated by PA (Eur)		+5 216.9	



Application in new trees



Application in existing trees



Density - 400 to 2000 trees/ha

Watermelon

- Location: Zagora, Morocco
- Objective: To save water and fertiliser by 50%
- Irrigation method: Drip irrigation
- Fertiliser application: Fertigation
- Installation method: Spot Application (P310: 750 ml/spot)
 - One plant was planted in one spot

**1) Make small pit to apply
CROP2BOOST**



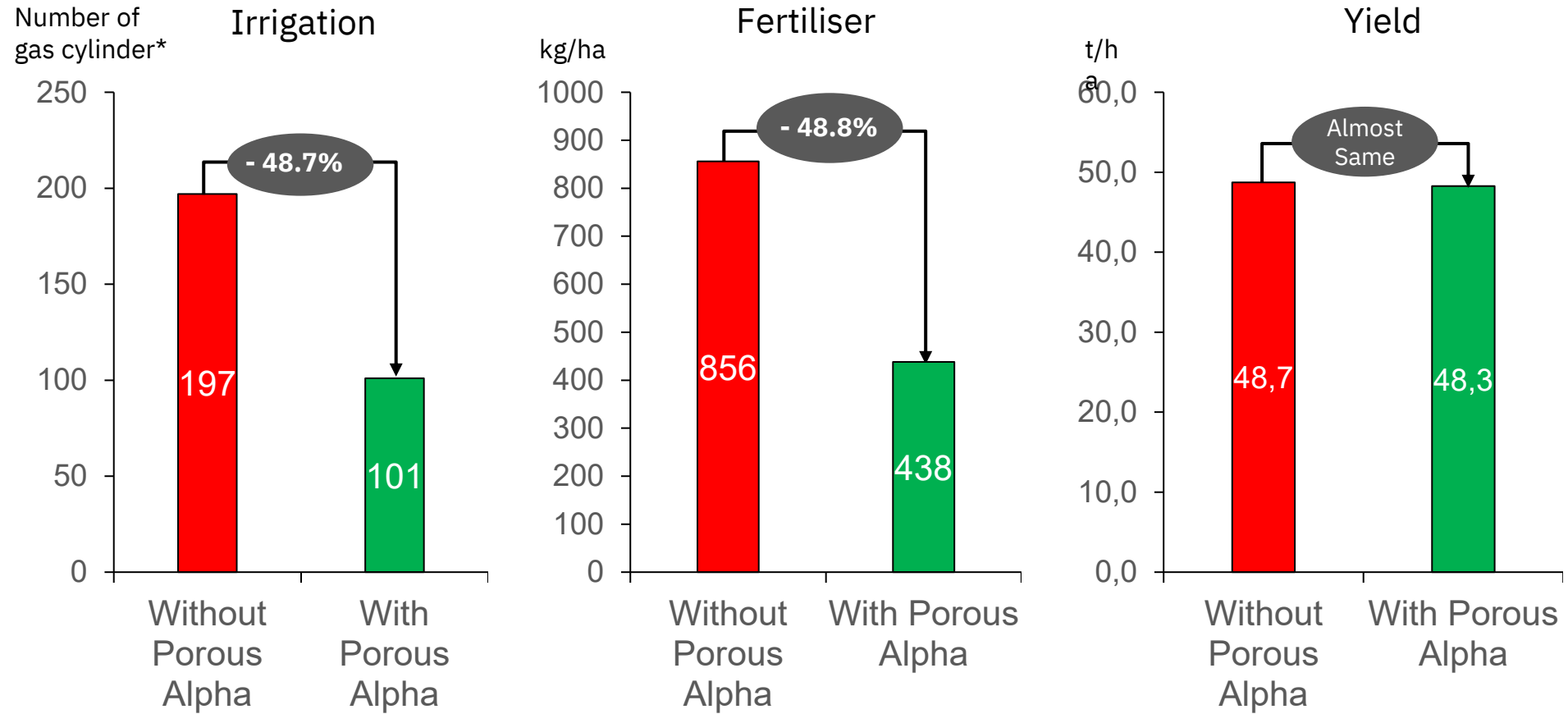
2) Pour CROP2BOOST



3) Cover the soil



Watermelon



*: Irrigation volume was calculated based on the consumed gas cylinder to pump up water from borehole



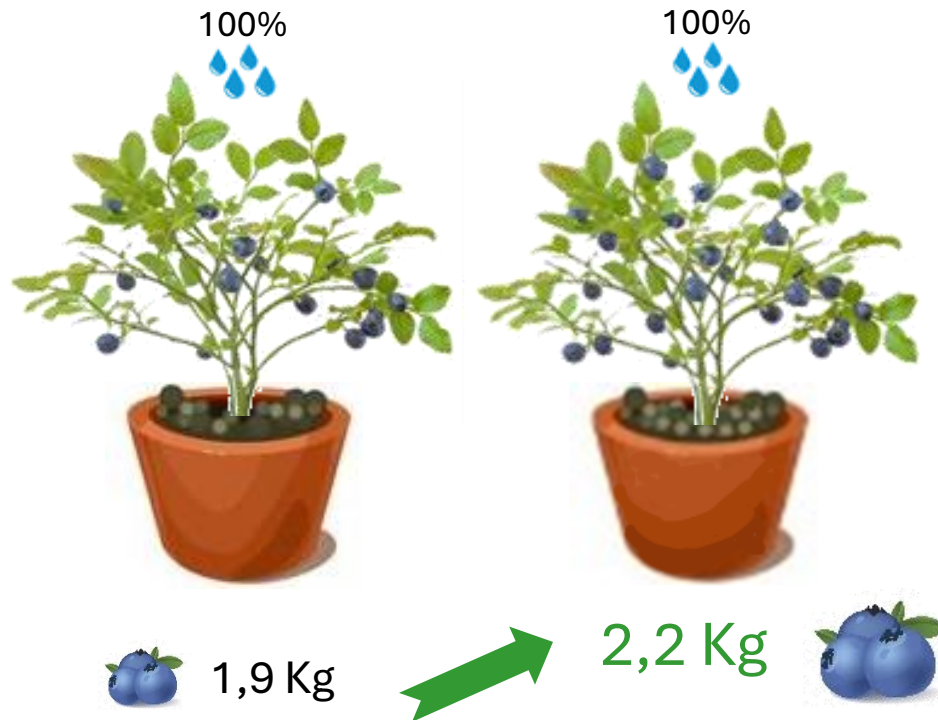
Used as a substrate



Blueberry

On blueberry, Crop2Boost increased substrate's water retention capacity for a better **irrigation efficiency**

And so, with same irrigation, yield increased by **+15%**



Yield by plant up **+15%**

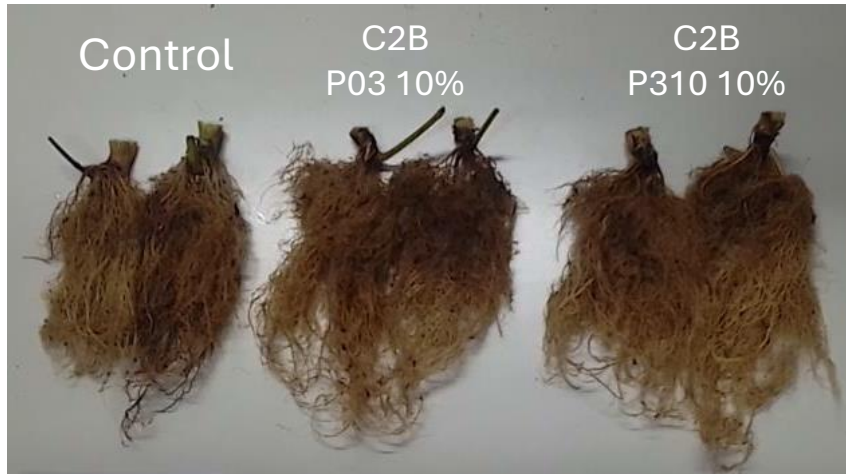


Crop2Boost mixed with substrate before planting
(10% of substrate volume)



Strawberry

On soilless strawberry, Crop2Boost allowed **better rooting** which automatically improves plant health and yield.



Condition	Root system characteristics			
	Length (cm/plant)	Area (cm ² /plant)	Average Diameter (mm/plant)	Volume (cm ³ /plant)
Control	5435,2 a	633,6 a	0,44 a	5,9 a
C2B P03 10%	8011,4 b	933,8 b	0,74 b	8,7 b
C2B P310 10%	7521,6 b	890,4 b	0,75 b	8,4 b

Different letters means significant difference between conditions

(Test Bonferoni, P < 0,05)



Other

Soilless:



100% P03 used as a substrate for Cherry Tomato

Dosage: 100% P03 (vs Coco Peat)

Goals: Reduce draining and observe impact on plants growth.



P310 mixed to natural volcanic rock for better water retention on Cucumber

Dosage: 10% P310 + 90% Pouzzolane

Goals: Save irrigation water and monitor the yield.

Other

Soilless:



100% P03 used as a substrate for Cherry Tomato

Results:

Although P03 allowed decent plant growth, the substrate was too compact (low aeration).



P310 mixed to natural volcanic rock for better water retention on Cucumber

Results:

Porous Alpha realized **40%** saving in irrigation water while providing **+20%** yield. (Trial was repeated and still waiting for results for more proof)

THANK YOU

info@better2earth.com
www.better2earth.com