

TESTING GRENA S.R.L. ORGANIC FERTILIZERS ON ORGANIC POTATOES CULTIVATION IN SICILY ISLAND, ITALY (2020)



GRENA LIFE, BIOSPRINT CALCIO, GRENA SOLO, IDROGRENA and ENERGY IDROGRENA

The need for a more sustainable approach in food production is becoming more obvious and inevitable. Unsustainable farm practices may lead towards higher yields through putting additional pressure on Land and environmental resources but this would only cause soil erosion, land pollution, loss of biodiversity and climate change.

In efforts to mitigate the aforementioned problems many farmers have begun turning to organic farming practices, to not only accommodate global food demand but to step towards sustainable farming.

GRENA s.r.l. as a pioneer manufacture of organic fertilizers dedicates multiple tests annually on different cultures in organic farming in order to get the optimal yield and quality in a sustainable farming system.

Testing GRENA S.R.L. Organic fertilizers on organic potatoes cultivation in Sicily Island, Italy:

Potato plant is the world's fourth-largest food crop after rice, wheat and maize.

Growing potatoes like all crops begins with establishing a healthy soil with characteristics such as: light, loose, moist and well-drained soil, in addition to obtain high quality and yield this crop requires suitable organic fertilizer, those rich in organic substance, and potassium as this crop demands high amount of potassium during its growth cycle.

The following test has been designed and tested on potato (V. Arizona), in order to first respond to the crop nutritional requirements and later to increase the farm productivity in terms of product yield and quality and farm-input management.





FERTILIZER APPLICATION:

GRENA SOLO: 1200 kg/Ha used as basic fertilizer

GRENA LIFE: 300 kg/ha used as covering fertilizer

GRENA BIOSPRINT CaO: 500 kg/ha used as covering fertilizer

K₂SO₄ 300 kg/ha

IDROGRENA: 4 applications every 7 days 25 L/ha

ENERGY IDROGRENA: 2 applications every 15 days 5 L/ha

RESULTS:

According to the test results application of GRENA fertilizers have notably increased the product quality and as a result the marketable production value has increased. The results show that using organic fertilizers and sustainable farm practices would not only provide high quality food containing high nutrients but also reduce the environmental impacts. See table below, comparing the environmental impact of organic farming vs conventional.

TEST GRENA FERTILIZERS	
FACTORS	€/ha
worker	2610
Material and services	5394
Quotas and other attributions	1100
Total cost of production	9104

TEST GRENA FERTILIZERS	
FACTORS	€/ha
Marketable production	13212
Gross income	5208
Net income	4108

IMPACT CATEGORY	UNIT	BIO POTATO	CONV POTATO
Global warming	kg CO ₂ eq	5013.522	9384.726
Stratospheric ozone depletion	kg CFC11 eq	0.009	0.151
Ozone formation, Human health	kg NO _x eq	24.153	31.220
Freshwater ecotoxicity	kg 1,4-DCB	567.827	677.703
Marine ecotoxicity	kg 1,4-DCB	749.981	796.102



**Are you an interested farmer who is wondering HOW all this can work?
Why don't you try to give a call to one of GRENA technicians!**



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