



# Interregional program "Quality Agriculture"

## First results: tomato and salads "Evaluation of conversion schemes to organic and biodynamic agriculture of standard farms of the Lazio Region"

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**Project objective:** to draw up guidelines to support the farms conversion to organic and biodynamic agriculture.

In relation to the analysis of the regional context, the project turned its attention to systems horticultural choosing farms type 3, monitoring tomato and salads parameters such as vegetation surveys, soil fertility, quality of products and economic analysis.

### First results of TOMATO

#### Introduction to the biodynamic organic farm in the consolidated

#### Materials and methods

Farm.....Agricoltura Nuova (Valle di Perna - Roma)

Exspermental trial..... 3 thesis comparing (A1-organic/B1-biodynamic treatments, 501 and 500p/B2-biodynamic without treatments)

How to plan.....Single rows

•Distance between rows....150 cm

•Distance on the row.....40 cm

•Density.....10.000 p/ha

#### Cultural practices

•Transplant.....18/05/2010

•Cropping system.....A land

Development determined

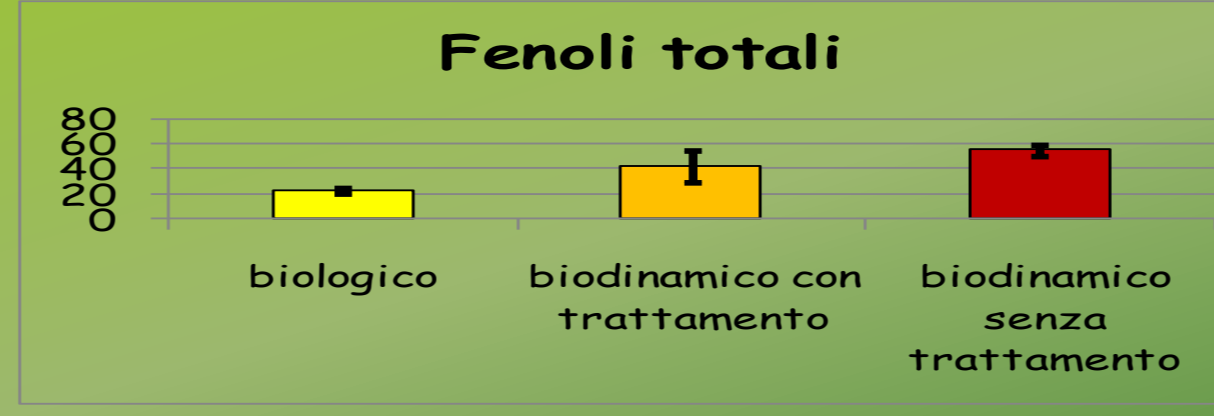
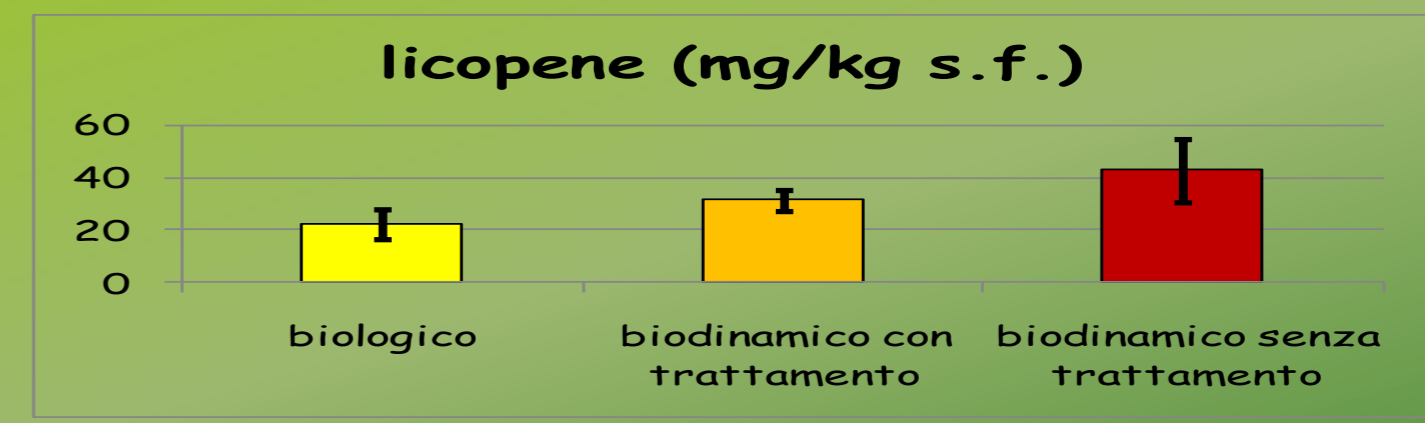
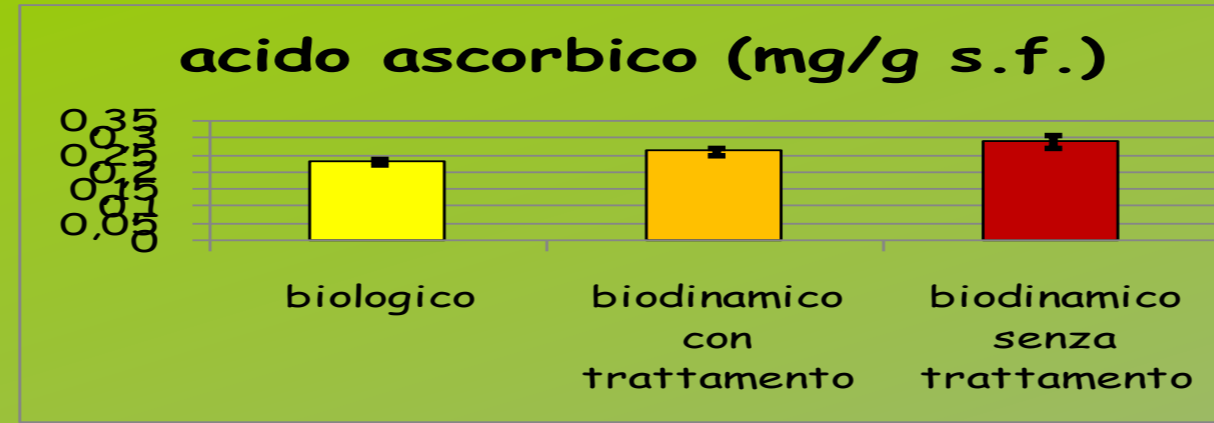
•Collection.....15/09/2010

Fertilization.....Compost 200 qli/ha

#### Yields

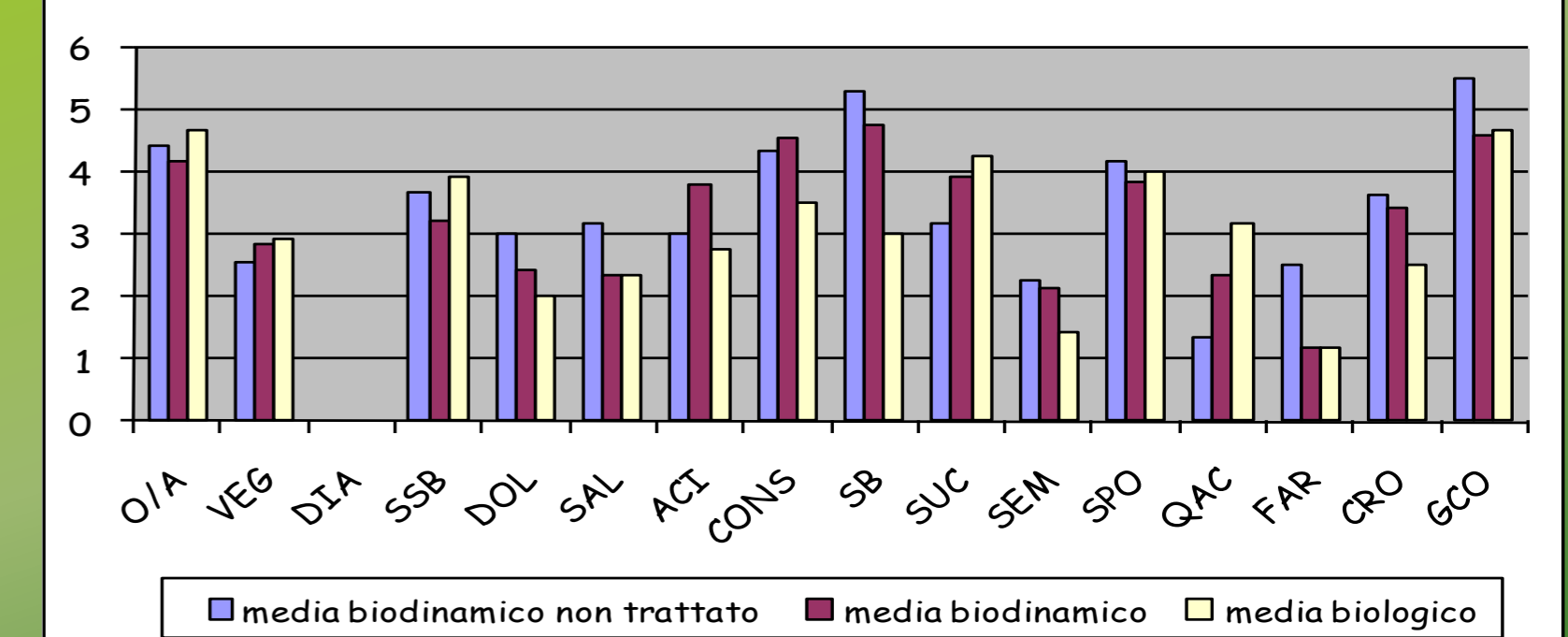
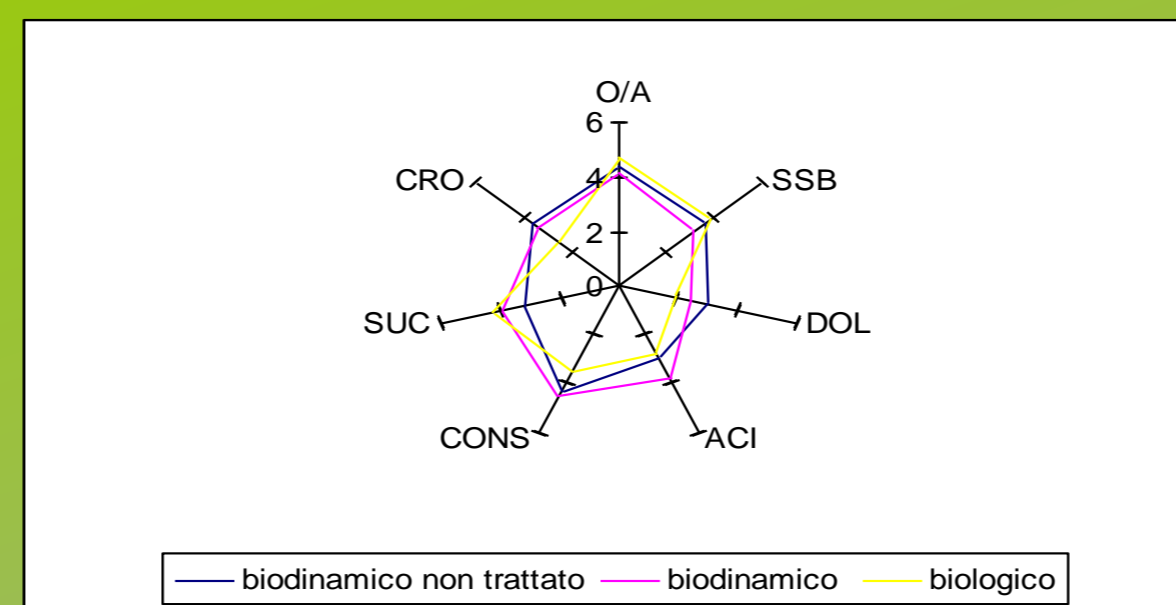
Has best yields the thesis without biodynamic treatments (46t), second yield production the biodynamic treatments (44t) and finally the organic agriculture (42t)

#### Chemical-physical analysis - INRAN



The fruit of tomato obtained with biodynamic method, in particular one without treatments, it is more rich in Ascorbic ac., carotenoids and total phenols in the organic

#### Sensory evaluation - LAMeT



Label: O/A=odour/aroma; VEG= vegetable aroma; DIA= diacetyl aroma; SSB=feeling in mouth; DOL= sweet taste; SAL=salty taste; ACI=acid taste; CONS=consistence; SB=cuticle thickness; SUC=juiciness; SEM=seeds; SPO=pulp thickness; QAC=watery; FAR=flouriness; CRO=crunchiness; GCO=overall satisfaction.

#### General economic analysis - FIRAB

In general the same sort of cultural, technical measures that differentiate the thesis consists in the treatment and distribution of treatments for B1 and composition of manure, that A1 is composed of 2/3 wood from the farm, while the arguments on B1 and B2, a mixture multiflora mix. Therefore, a first estimate of the thesis identifies the major costs B1, in 9 hours man and machines used for the crop cycle, in addition to the depreciation of equipment (sprayer and dynamization) and an additional approximately 15/20% on green manure. For the thesis B2 the additional cost is limited to the increase of green manure

### First results of ROMAINE LETTUCE AND OAK LEAF

#### Introduction to the biodynamic organic farm in the consolidated

#### Materials and methods

Farm.....Agricoltura Nuova (Valle di Perna - Roma)

Exspermental trial..... 3 thesis comparing (A1-organic/B1-biodynamic treatments, 501 and 500p/B2-biodynamic without treatments)

How to plan.....Single rows

•Distance between rows....40 cm

•Distance on the row.....25 cm

•Density.....60.000 p/ha

#### Cultural practices

•Transplant.....18/04/2010 romaine l.

01/06/2010 oak l.

•Collection.....30/06/2010 romaine l.

30/09/2010 oak l.

Fertilization.....Compost 200 qli/ha

#### Yields

Has best yields the thesis in biodynamic without treatments (R.L. 27 t, O.L. 14.08t), second yield production the biodynamic treatments (R.L. 23t; O.L. 14t) and organic agriculture (R.L. 22t, O.L. 11t).

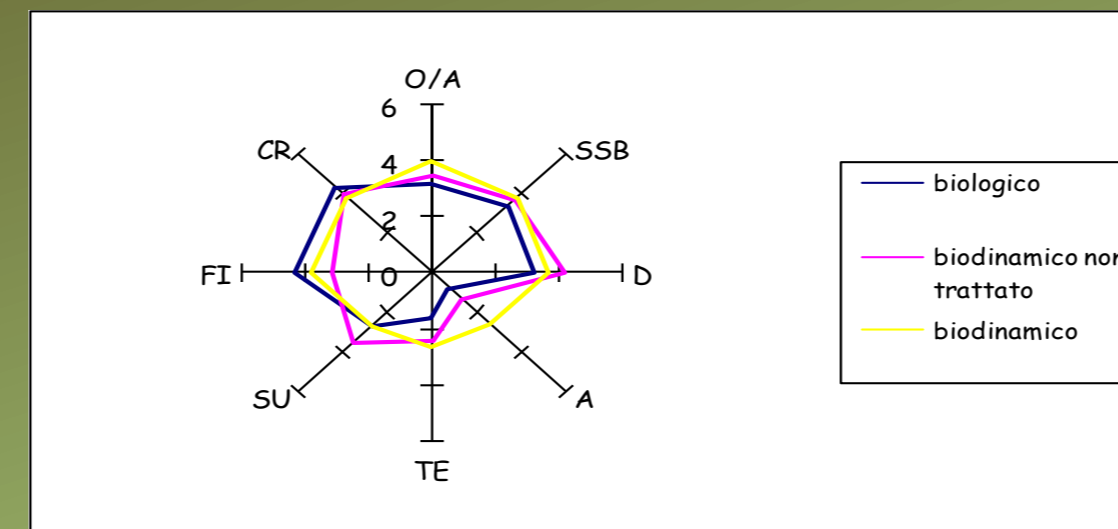
#### Chemical-physical analysis - INRAN

Romaine Lettuce and oak leaf organic cultivation were richer in total phenols than those cultivated without the use of biodynamic treatments.

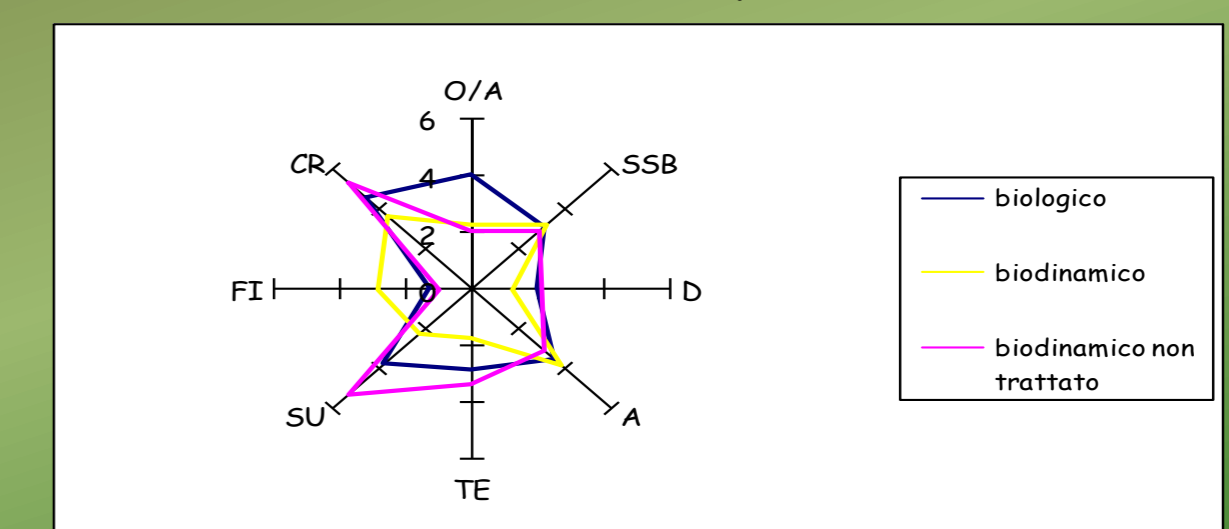
Romaine Lettuce and oak leaf biodynamic cultivation without the use of treatments had a higher content of moisture and sodium salt of those organic and biodynamic cultivation with the use of the treatments

#### Sensory evaluation - LAMeT

##### Romaine Lettuce



##### Oak Leaf



Label:O/A=odour/aroma; V=vegetable; F=floral; L=latex; SSB=feeling in mouth; D=sweet taste;A=bitter taste;FL=flexibility; TU=turgidity; TE=Tenderness;SC=slippery; M=masticability; SU=Juiciness; FI=Fibrousness; SP=sponginess; CR=crunchiness; GC=overall satisfaction.

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