Breeding Cultivars of Cherry Tomato for Organic Farming Using Geostatistical Tools

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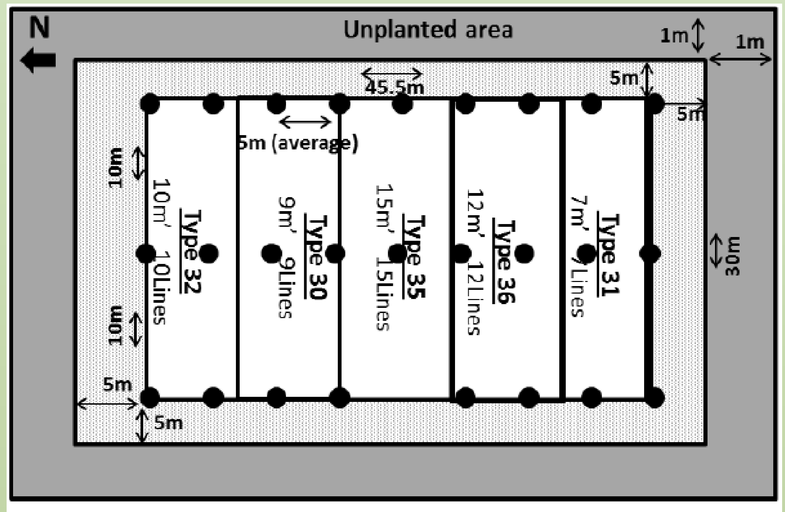
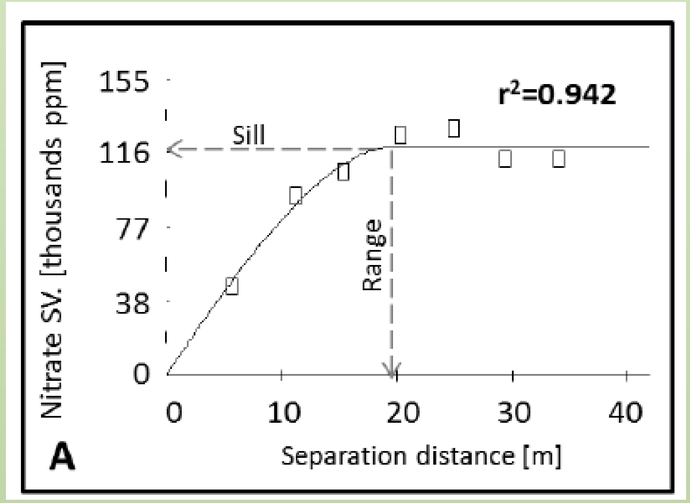
Problem :

Due to the existence of various patterns of organic fertilizers, there are soil patches differing in their soluble nutrients concentrations which cause for the most crops a dramatic decrease in the yield . A breeding methodology for types resistance to wide nutrient concentrations ranges is essential



- Black point represents sampling point
- Solid gray represents unplanted area
- Dotted gray represents planted area
- White area represents the analyzed plot.
- The small units inside represent the cherry tomato types' units, and their widths
- Arrows represent distances between samples, between the samp

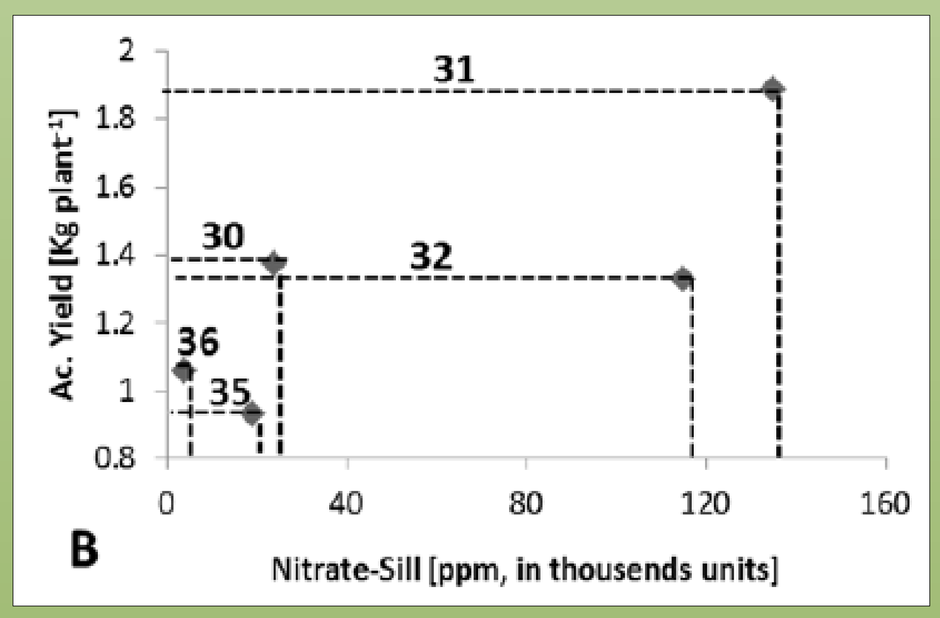
Planting scheme of the five types of cherry tomatoes was tested



The methodology is based on comparisons between the 'Range' and 'Sill' variable of the spatial distribution

'Range': maximal distance of spatial impact.

'Sill': Maximal variability of the Nitrate in soil



Comparisons between the types yields and Nitrate-Sill.

Type '31' from Zerraim Gadera ® succeeds to keep its growth and yield values even in high heterogeneous nitrate concentrations plots

Type '35' is the most un-suitable

Before first harvest

At end of season

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