What is the most effective fertilizer?

Objective

The aim of this work is to find out, which is the best fertilizer in a *Brassica oleracea* plantation. For this purpose, two varieties of *Brassica*, a commercial one and a wild one, will be used along with four types of fertilizer: horse manure, earthworm humus fertilizer, chemical fertilizer and non-fertilizer.

Experiment Design

Two terraces divided into 32 plots that have 8 treatments, the result of combining the 2 varieties and the 4 fertilizers.

Results

The plants with chemical fertilizer reach the highest height.

The highest concentration of plants in the commercial variety is between 50 and 60 cm, and in the wild variety is between 50 and 65 cm, which are much lower values.

There is a significant difference between green and dry roots weight.

There is a big difference between commercial and wild variety. Also, the chemical fertilizer has the best values in both varieties.

Once again, the chemical fertilizer has the biggest mean.

Regarding the mean stem perimeter, there is again a big difference between commercial and wild variety. The chemical fertilizer has also the best values in both varieties.

There is a lot of variability between fertilizers. The horse fertilizer has the best median although the chemical fertilizer has the best values.

Conclusions

- The fertilizer favoured the development of our plants regarding the height, the roots weight and the stems perimeter.
- As regards to fertilizers, the chemical one was the most effective in mean or median in both varieties.
- The study has shown a great variability among the four types of fertilizers. However, the chemical one has not shown a significant difference regarding the organic fertilizers.