

# Environmental Science & Technology 2018

## THE EFFECT OF SOIL CULTIVATION PRACTICES IN SUNFLOWER HELIANTHUS ANNUS CULTIVATION

**Molla A<sup>1</sup>, Skoufogianni E<sup>1</sup>, Mollas St<sup>1</sup> and Chatzikirou E<sup>2</sup>**

<sup>1</sup>University of Thessaly, Greece

<sup>2</sup>Elgo-Dimitra Theofrastou, Greece

The objective of this work was to investigate the effect of different soil cultivation practices in sunflower cultivation. For this purpose an experimental field was established in central Greece (in Larissa). The minimum slope percent of the field was 5% while treatments being applied were both conventional tillage and no-tillage with two tillage directions (contour and inclination). There were four treatments with three replications each. The treatments were conventional tillage - contour direction (CT-CD), no tillage - contour direction (NT-CD), conventional tillage - inclination direction (CT-ID) and no tillage - inclination direction (NT-ID). Sunflower was sown on July 6<sup>th</sup> 2015 and was harvested on October 10<sup>th</sup> 2015. During the experiment generation, plant height, leaf surface and total biomass were measured. According to the results the best germination noticed in the CT-ID treatment. Plant height ranged from 64.9 cm to the CT-CD treatment to

85.2 cm to the CT-ID treatment. Also, the total biomass weight was higher in CT-CD treatment and lower in NT-ID treatment. Therefore, the soil cultivation practices play an important role in plant growth, in biomass and in yield production.

### Biography

Molla A has completed her PhD from the University of Thessaly, School of Agricultural Sciences, Department of Agriculture Crop Production and Rural Environment Soil Science Lab and Postdoctoral studies from the Department of Soil Water Resources, National Agricultural Research Foundation, Greece. She has published nine papers in reputed journals and 11 papers in international conferences.

katrinmol@yahoo.gr