

## **Examensarbete/självständigt arbete**

**Ämne:** Markvetenskap eller miljövetenskap

**Nivå:** D, E

**Antal poäng:** 30 HEC

**Title:** Different soil tillage methods and their effect on soil respiration

### ***Background and objectives***

Soil tillage affects many processes in the soil such as the availability and circulation of nutrients, occurrence of weeds, water infiltration and soil structure and stability. Field studies have shown increases in carbon mineralization after different kind of soil tillage activities. Generally, decomposition of soil organic matter increases with soil tillage intensity, but also contrasting results have been observed. The aim of this study is in quantifying the immediate and short-term effects of different soil tillage methods on soil respiration under field conditions.

**Working plan:** Experimental work (respiration measurements, soil sampling etc.) will be mainly conducted during the autumn 2010 (September). Resulting data sets will be evaluated using statistical methods and a simple soil carbon model. The results will be discussed within in the context of relevant literature within the subject. The thesis can be written in Swedish or English.

### **Contacts**

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