Abstract  Today reducing greenhouse gases against global warming, and to encourage the balance between development and natural sources are the basic requirement of the sustainability of life. Because of the 88 % ratio of CO2 it is needed to decrease the emission of CO2 to minimum. Soil carbon (C) dynamic is important for sustainability and climate change. Most of the C in soil converts to CO2 and the basic reason of the C loss is soil tillage. CO2 emission to the atmosphere from the soil because of the intensive tillage causes decrease of soil quality and yield, and increase the environmental pollution. On the other hand, it is accepted conservation tillage is advantageous for soil and environment quality. In this study, different soil tillage systems (conventional tillage, reduced tillage and no tillage) were examined.