

REDUCTION OF CO₂ EMISSIONS IN PRODUCTION OF CORN IN SLOVENIA

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Abstract: Soil tillage is one of the greatest energy consumers and a contributor to CO₂ emission in agriculture. Conventional tillage with mouldboard plough, rotary harrow and seeding (CT); reduced tillage with chisel plough and seeding (RT); direct seeding after glyphosat spraying (DS-G) were researched on three locations in Slovenia. The experimental crop was a corn (*Zea mays* L.) for silage in 2007 and grain corn in 2008. The DS-G system saved from 78.43 % to 81.42 % of fuel and the RT decreased the diesel consumption for 33.29 l ha⁻¹ (48.68 %) to 36.03 l ha⁻¹ (52.00 %) in comparison with CT. The DS-G tillage reduced in average the CO₂ emissions by 161.71 kg CO₂ ha⁻¹ and the RT for 103.13 kg CO₂ ha⁻¹.

Key words: soil tillage, corn silage, fuel consumption, CO₂ emission, Slovenia



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