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RESEARCH PAPER

Effect of various organic mulches on the content of organic carbon in soil of NA '7' aonla (*Emblica officinalis* Gaertn.) under rainfed condition of Shiwalik foothills of Himalayas

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Abstract : Organic mulch eventually breaks down and adds organic material to the soil. The increase of the amount of soil organic carbon (SOC) is regarded as the main advantage of organic mulches. The aim of our investigation was to evaluate the effect of different organic mulches on the content of SOC. The treatments applied : were without mulch, bajra straw, maize straw, palah leaves (*Butea monosperma*), brankad (*Adhotada vassica*) and farmyard manure. The influence of organic mulch was investigated in 2006-2009 and their residual effect in 2011-2012. In the article the data of 2009-2012 are presented. A higher content of SOC was established in all mulched experimental tree compared with the unmulched tree. A significant influence of farmyard manure observed during the whole period. The influence of bajra straw, maize straw, palah leaves (*Butea monosperma*), brankad (*Adhotada vassica*) and FYM mulches on the content of SOC was significant in 2009-2010 but residual effect of bajra straw, maize straw, palah leaves and brankad was not significant.

Key Words : Mulching, Soil organic carbon, Aonla

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