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THE EFFECTS OF CONSERVATION TILLAGE ON SOIL PROPERTIES AND CROP YIELD

SRIDHAR N & S.RAMACHANDRAN

Research scholar, Department of Farm Machinery and Power, Agricultural Engineering College and Research Institute, Agricultural University, India

ABSTRACT

Tillage operation plays a vital role in seedbed preparation, weed control, management of crop residues, mixing fertilizer in the soil, improving soil aeration, alleviating compaction, optimizing soil temperature and moisture regimes. During field operation the ways of implementing traditional tillage operations affect the soil properties such as temperature, moisture, bulk density, aggregation, organic matter content, and plant properties such as root density, which in turn affect plant growth. Hence, the proper tillage practices are required to avoid degradation of soil properties, crop yield variation and effects of ecosystem stability. The main objective of this review is to understand the effect of conservation tillage on soil properties and crop yield because conservation tillage is a crop production system which involves management of surface residues, prevents soil degradation, restores and improves soil fertility and increase crop yield during the crop cultivation.

KEYWORDS: Conservation tillage – soil properties - Crop yield