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PROTECTIVE TILLAGE METHODS APPLIED IN WHEAT AGRICULTURE IN ADANA REGION

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ABSTRACT

According to 2021 TUIK data, 20,500,000 tons of wheat production has been realized in Turkey. Adana province is in the 6th place in Turkey production, meeting approximately 3.8% of Turkey's wheat production. According to 2020 TUIK data, 621,724 tons of production was realized in an area of 1.586,016 da in Adana. Wheat cultivation in the region is in the form of flat sowing and traditional tillage is generally applied. For this purpose, previous crop residues are either completely buried in the ground or burned for various reasons, although it is prohibited. Traditional tillage methods and industrial agricultural practices with intensive inputs applied in the region cause long-term degradation of agricultural lands and environmental damage. In protective tillage, it is essential that at least 30% of the previous crop residues remain on the soil surface. Plant residues on the soil surface reduce the risk of water or wind erosion or completely eliminate it depending on the amount of residue. In addition, plant residues on the soil surface in places with water problems maintain soil moisture and reduce evaporation from the soil to the atmosphere. Barut et al. (2010) examined the effects of protected tillage systems applied in wheat farming in Adana region on some soil properties, total porosity values increased by 12-23% in conventional tillage and 10% in reduced tillage, while a 4-6% decrease in direct sowing was observed. seen. Traditional tillage method significantly increased penetration resistance and caused soil compaction compared to protected tillage methods. Barut and Çelik (2010) in their study; They compared the protective tillage method in terms of plant formation and plant distribution uniformity, and emphasized that it could be an alternative tillage method for sustainable agriculture by obtaining better results than the traditional method.

Keywords: Conservation tillage, Wheat Agriculture, Adana region.