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**Effect of sugarcane factories wastages, farmyard manures and wheat straw on soil  
organic carbon and wheat yield**

**M. Goosheh<sup>1</sup>, S. Radmehr<sup>2</sup> and S. Saadat<sup>3</sup>**

1. Agricultural Research and Natural Resources Center of Khouzestan, Iran

2. Soil and Water Research Station, Karaj, Iran

3. Soil and Water Research Institute, Tehran, Iran

Soil organic carbon (OC) in most soils in Khouzestan province is less than one percent. Thus, increasing organic matter (OM) such as crop residuals and farmyard manures (FYM) through the soil is one of the most important efforts in agricultural section. Likewise, sugarcane factories wastages such as baggass and filter cack are available in the province. Except the part of baggass which is profited by paper mill, the others are piled up and thus, these are appropriate to be applied as organic fertilizer. Consequently, the trail was carried out for five years (1999- 2004) through split plot experiment design with two factors in permanent plots in the Shavoor Agricultural Research Station on 31° 00' N and 48° 27' E. Main plots included manure type which are considered as follows: filter cack and baggass of sugarcane, cattle and poultry manures, and wheat straw. They were compared with a control plot (without any organic fertilizer). Manure amounts in subplots included 2.5, 5 and 10 Mg ha<sup>-1</sup>. The results showed that, in south of Khouzestan (with conditions similar to the research region), in order to increase grain yield and soil fertility on wheat farms, application of 2.5 Mg ha<sup>-1</sup> of filter cack and 10 Mg ha<sup>-1</sup> of cattle manure or baggass, yearly, is necessary for at least 5 years.

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<sup>1</sup> Corresponding author

Email: magoosheh@yahoo.com