

EFFECT OF FERTILIZER USE ON CROP YIELD AND ENVIRONMENTAL POLLUTION IN PAKISTAN

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ABSTRACT

Fertilizer use is an integral part of crop production system. Different types of nitrogenous, phosphatic and potash fertilizers are used for crop production. They are lost indiscriminately through nitrate leaching, emission of gaseous nitrogen through N transformation and ammonia volatilisation. However, the fertilizer use in Pakistan is the lowest (100 kg/ha) in the world except India and China. It is highly imbalance in favour of nitrogen, therefore the yields of major crops are quite low as compared to developed countries using higher fertilizer rates. With the present fertilizer use level in rice-wheat system for obtaining modest yields of three t/ha each of paddy and wheat, a negative balance of 13 kg N/ha and about 200 kg K₂O has been calculated. In fact current agriculture in Pakistan is at best described as extractive or exploitive, defecato mining soil fertility rapidly. Also most of the area (68 mha) in Pakistan falls in arid and semi arid region, therefore, the net movement of water is upward and chances of ground water pollution due to low fertilizer use in the country are remote.