Changing the Tillage Paradigm in South Asia: Wheat Sown on Beds. (A06-meisner012830-Poster)

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Abstract:

While production in a cropping and population dense region often means increasing wheat yields, to keep growers' incentive to produce also means making wheat more efficient and profitable. Literature shows that bed-sown compared to flat-sown wheat has increased the nitrogen- and water-use efficiency as well increasing yields while at the same time, reducing costs, making wheat production more efficient in the developed world. However, this methodology has not been well tested in the developing world where bed-forming and seeding machinery is not found nor practiced. In two locations over two years, bed-sown wheat was sown on 2 rows 15-cm apart on top of beds 70 cm from furrow-to-furrow. Yield increase ranged from 0.8 to 1.1 t/ha, while water savings was 60% using the bed sown wheat over the flat sown system. Reasons for this yield increase include: increased sunlight into the canopy, less foliar diseases, better root development, better use of nitrogen, less waterlogging at the early seedling stages, and less lodging after the last irrigation.

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