Prospects of Triticale as Fodder and Feed in Farming of Bangladesh

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The XXI International Grassland Congress / VIII International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

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Key words : triticale , fodder , feed , farmers of Bangladesh

Introduction Triticale is a relatively new cereal which has a high yield potential and is widely adapted . It is a hybrid cereal derived from an interspecific cross between wheat *(Triticum durum)* and rye *(Secale cereale)* (Sell *et al* , 1962) . Triticale is a useful dual-purpose crop for grain and forage biomass (Andrews *et al* . , 1991) . In Bangladesh , it is a non-traditional cereal that grows well during the cool and dry Rabi season (November-March) when small-scale dairy farmers face a severe shortage of quality fodder (Haque *et al* . , 2006) .

Materials and methods This paper reviews the present situation of Triticale cultivation and examines the potential for contribution to livestock as well as poultry sector in Bangladesh Agriculture . The results of different feeding trials and some demonstration results of the last 6-7 years in different places of Bangladesh are presented . The cost of production and BCR (Benefit cost ratio) of triticale are compared with other crops .

Results During 2005-06 , the green fodder yield ranged from 4 .9 to 20 .0 t/ha fresh mass (0 .7 to 2 .7 t/ha dry mass) from one cut at 35 days and 7 .0 to 28 .0 t/ha fresh mass from two cuts at 35 and 50 DAS . Although grain yield and grain-size decreased with increased frequency and later timing of grass cutting , high grain yields (up to 3 .5 t/ha) were obtained from WRF-7 after two cuts . These fodder yields with WRF-7 were 76 % larger than those measured in 2001-02 , although grain yields were almost identical in both years (Table 1) . Based on the dual purpose Triticale with two cuts the net income per hectare was Tk 20246 .12 and B/C ratio was 1 .62 which is greater than 1 . So production of dual purpose triticale could ensure better farm profitability to the small-scale dairy keepers . Therefore , it is recommended to strengthen and up-scale the of triticale program in Bangladesh (Table 2) .

Table1 *Summary results from on-farm demonstrations with WRF-7 triticale in Bangladesh during* 2001 -02 *and* 2005 -6 .

Number of cuts for green fodder	Year	No . of demonstrations	Green fodder (t/ha)	Straw yield (t/ha)	Grain yield (t/ha)
One cut (35 DAS)	2001-02	44	1 .2-8 .3	-	1 .4-3 .6
	2005-06	66	4 .9-20 .0	1 .5-7 .1	1 .1-4 .1
Two cuts (35 , 50 DAS)	2001-02	44	1 .4-14 .8	-	1 .3-3 .2
	2005-06	79	7 .0-28 .0	0 .8-6 .2	0 .9-3 .5

Table 2 *Comparision of cost and benefit of triticale with other common crops in Bangladesh .*

Crop	Total cost (A)	Gross benefit (B)	Net Income (B-A)	B/C ratio (B/A)
Triticale	32503 .88	52750 .00	20246 .12	1 .62
Wheat	33503 .88	43000 .00	9496 .12	1 .28
Maize	31450 .50	48130 .00	16679 .5	1 .53

Conclusion From the last 6-7 years research station trials as well as farmer level demonstration results of triticale , it can be concluded that triticale is a forage as well as grain crop with good potential to increase the income of small-scale , commercial dairy and poultry producers in rural Bangladesh and significantly reduce the serious feed shortages faced by farmers during the lean season .

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