Table 3. Effect of rate and time of N application on yield and economics of maize-wheat cropping system (mean of three years, 2009-10 to 2011-12).

	System yield, kg/ha (Maize yield + MEqY of wheat)				Net returns, Rs/ha				B:C Ratio			
Treatment	T ₁	T ₂	T ₃	Mean	T ₁	T ₂	T ₃	Mean	T ₁	Τ ₂	T ₃	Mean
N ₁	3,683	3,609	3,608	3,634	8,542	7,936	7,927	8,135	1.37	1.35	1.35	1.36
N ₂	8,113	8,270	7,340	7,908	41,338	42,580	35,341	39,753	2.5	2.54	2.31	2.45
N ₃	11,534	11,898	10,224	11,219	67,033	69,906	56,752	64,564	3.16	3.24	2.88	3.09
N ₄	12,842	13,158	11,954	12,651	75,984	78,494	69,114	74,531	3.29	3.35	3.12	3.25
Mean	9,043	9,234	8,282		48,224	49,729	42,284		2.58	2.62	2.42	
	SEm±		C.D. (5%)		S.Em±		C.D. (5%)		S.Em±		C.D. (5%)	
Main plot	103		359		817		2,830		0.024		0.082	
Sub plot	103		309		821		2,462		0.026		0.079	
Interaction	206		618		1,643		4,924		0.053		0.158	

N management proved to be beneficial in increasing the yield and profitability of maize-wheat farmers of northern Karnataka. Under the increasing price scenario of fertilisers, a wise decision on fertiliser application must consider the crop yield response to N fertiliser application and its associated AE_N and ROI to match the socio-economic condition of the farmer.

Acknowledgement

The authors greatly appreciate and acknowledge the financial and technical support of IPNI for this study.

Dr. Biradar is Professor, Dept. of Agronomy, Univ. of Agril. Sciences, Dharwad; e-mail: dpbiradar@yahoo.com; Dr. Aladakatti is Senior Scientist, Dept. of Agronomy, Univ. of Agril. Sciences, Dharwad; Mr. Shivamurthy is Research Scholar, Dept. of Agronomy, Univ. of Agril. Sciences; Dr. Satyanarayana is Deputy Director, IPNI South India Program; Dr. Majumdar, Director, IPNI South Asia Program.

References

Anonymous. 2010. Production and productivity of field crops. Directorate of Economics and Statistics.

Interaction effect of nitrogen rate, time of application and real-time N management on agronomic efficiency of N (AEN) and return on investment (ROI) under maize-wheat system (mean of three years, 2009-10 to 2011-12).
,

	AEN, k	g grain	increase	e/kg N	ROI, Rs/Re invested in N				
Treatment	T ₁	T ₂	T ₃	Mean	T ₁	T_2	T ₃	Mean	
N ₁	_							_	
N ₂	34.07	35.85	28.71	32.88	21.20	21.84	18.12	20.39	
N ₃	30.19	31.88	25.45	29.17	17.19	17.92	14.55	16.55	
N ₄	23.48	24.48	21.40	23.12	12.99	13.42	11.81	12.74	
Mean	29.25	30.74	25.18	28.39	17.13	17.73	14.83	16.56	

Timsina, J., M.L. Jat, and K. Majumdar. 2010. Plant and Soil. 335 (1):65-82. Rajendran, R., P. Stalin, S. Ramanathan, R.J. Buresh. 2010. Better Crops-South Asia. 4(1):7-9.

Gill, M.S., A.K. Shukla, M.P. Singh, O.K. Tomar, R. Kumar, K. Majumdar, and K.N. Tiwari. 2009. Better Crops India. 3(1):12-15.

Videos Available from IPNI South Asia Program



A significant part of IPNI's global mandate includes disseminating appropriate crop nutrient management information/ knowledge through printed and audio-visual medium. IPNI South Asia Program staff has been active in developing crop and nutrient specific videos for extension purpose. Developed in regional languages, these simple videos are expected to help industry as well as other stakeholder extension systems to convey simple messages about the importance of specific nutrients as a part of balanced fertilisation or the right ways of managing nutrients for specific crops for higher yields, farmer profitability and better environmental stewardship of nutrients. A video on the importance of Potassium in Crop Production, made in Hindi, is now also available in Bengali, Oriya, and Telegu regional languages. A Hindi video on nutrient management in sugarcane and a Telegu video on nutrient management in cotton were also developed through the support of fertiliser industry and the cooperators from the National Agricultural Research System. These two videos are also available in Oriya language.