ABSTRACT

A field experiment was conducted during kharif and rabi seasons of 2005-2006 and 2006-07 at Indian Grassland and fodder research institute, Jhansi to know the response of fodder sorghum - mustard cropping system to integrated weed and nutrient management. Significantly increase in green fodder, seed yields, dry matter and crude protein yield were recorded with successive increase in hand weeding by khorhi at 30 DAS + 75% NPK (RDF) 25% FYM. Hand weeding by khorhi at 30 DAS + 75% NPK (RDF) + 25% FYM gave significantly higher green fodder yield (432.00 and 440.20)2/ha), crude protein yield (13.35 and 14.06) in 2005 and 2006, respectively. While, the seed yield of mustard was gave (12.30 and 12.49 q/ha) in 2005-06 and 2006-07, respectively. These treatments also recorded significantly higher siliquae/plant, 1000- seed weight and oil content (%) of mustard crop. Lowest NPK uptake by weed was recorded by hand weeding combination with 75% NPK (RDF) + 25% FYM. Amongs treatment hand weeding by khorhi at 30 DAS and isoproturon @ 0.75 kg/ha combination with 75% NPK (RDF) + 25% FYM reduced the weed density, increase weed control efficiency (%) in fodder sorghum and mustard during both the years of experimentation. These treatments gave maximum net return (23120.71 and 23009.86 Rs./ha), respectively. Weeder cum mulcher at 30 DAS + 50% NPK (RDF) + 50% FYM also maintained soil fertility as indicated by higher contact of organic carbon available nitrogen, phosphorus and potassium.