

PROFORMA FOR SUBMISSION OF REASERCH PROJECTS

Part -1: General Information

200	Project code	
2001	Institute code no.	CI 8.20
2002	ICAR code no.	
201	Name of the Institute and Division	
2011	Name and address of the institute:	Indian Grassland and Fodder Research Institute, Jhansi -284003
2012	Name of division an/section	Crop Improvement Division
2013	Location of the project	Plant Protection section
202	Project Title	Integrated disease management for root rot & dry root rot in cowpea (<i>Vigna unguiculata</i> (L) Walp.
203	Priority areas	<i>Pathology</i>
2031	Research approach	Basic Res. √ Applied Res. √ Process or Technology Development / Transfer of Technology
204	Specific area	Cowpea Rots
2041	Previous project/projects in this specific areas: Year, type of funding, cost etc.)	NA
205	Duration	Five Years
2051	Date of start	July 2008
2052	Likely date of completion	July 2013
206	Total cost of the project	
2061	Foreign exchange component (if any)	NA
207	Project profile summary	Cowpea (<i>Vigna unguiculata</i> (L) Walp.) is a warm season annual leguminous fodder crop. It is rich in protein and forms an excellent mixture with maize, sorghum, pearl millet and teosinte for increasing the milk production. The productivity of green fodder cowpea is approximately 25-45 t/ha in India. Pests and diseases hampers crop establishment, impair forage quality and reduces green fodder and seed yield. Besides causing direct yield losses they also suppress nodulation and consequently negating the maximum nitrogen fixation. The losses in green fodder yield were estimated to be about 30 per cent (Ram and Gupta, 1989). Sometimes the insect pests are responsible for crop failure. The concept of Green Revolution,

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brought self-sufficiency in food production with the introduction of high yielding varieties, inorganic fertilizers, pesticides, modern implements etc. But these Green Revolution techniques made farmers poor and debt ridden and spoilt the whole Indian agriculture ecosystem by the principle of monoculture resulted in the rapid erosion of crop and livestock diversity, natural soil fertility and biological pest regulation, enhanced the soil erosion, salinity. Possibly in future the modern agriculture may not be able to meet the requirements of the ever-increasing population. Hence, it is right time to opt the integrated approaches which have special advantages over modern agricultural practices. The goal of this Project is to develop and improve ways to reduce crop losses caused by sclerotial fungi causing stem or dry rot and root rot in cowpea. Present studies focus on developing effective disease control strategies that are environment friendly, safe to our livestock's, and are compatible with sustainable crop production. Information generated under this project will provide a base for developing sustainable Integrated Disease Management (IDM) program.

208 Key words

Cowpea, Rot, *R solani*, *M. phaseolina*, Bio-control, Pesticides, Integrated Disease Management.

