RPF-1

PROFORMA FOR SUBMISSION OF RESEARCH PROJECTS
PART-1: GENERAL INFORMATION

200 Project Code

2001 Institute Code No. **7.11**

2002 ICAR Code No.

201 Name & Address of Institute **INDIAN GRASSLAND & FODDER RESEARCH INSTITUTE, JHANSI-2840003**

2012 Name of Division/Section: **Crop Improvement Division**

2013 Location of project: **Central Research Farm, IGFRI, Jhansi**

202 Project Title: **" Biochemical and Molecular Approach for Characterization of Drought Tolerant Forage Sorghum"**

203 Priority Area

2031 Research Approach: **Applied Res. Basic Res.** Process/or Technology Development Transfer of Technology

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204 Specific Area: **Plant Biochemistry & Plant Molecular Biology**

2041 Various Project/ Projects in this specific area: **No systematic work was carried out at the institute farm.**

205 Duration: **5 years**

2051 Date of start: **July 2010**

2052 Likely date of completion: **June 2015**

206 Total cost of Project

2061 Foreign Exchange Component (if any): **NIL**

207 Project Profile Summary:

Sorghum (*Sorghum bicolor* L.) is an important crop in many parts of the world. It is utilized as food, fodder and several industrial purposes. In general, sorghum is known to be ore tolerant to any stresses including heat, drought, salinity and flooding (Ejeta and Knoll, 2007). Drought, one of the most severe stresses, results in a considerable loss of crop productivity. Development and selection of drought tolerant forage sorghum is very much required to ensure the fodder availability in drought prone areas of country. The forage sorghum germplasm at IGFRI comprising of stay green, high sugar content and low HCN will be screened at physiological and biochemical level for their tolerance to drought. Selected sorghum lies will be characterized at molecular level. The selected lines will be introduced into drought prone area for forage production in the extreme environmental conditions.

208 Key words: Drought, forage sorghum, antioxidant enzymes, chlorophyll.

PART-II: INVESTIGATOR PROFILE

210 Principal investigator:
2101 Name: **Dr Manoj Kumar Srivastava**
2102 Designation: Sr Scientist (Plant Biochemistry)
2103 Division/Section: Crop Improvement Division
2104 Location: CR Farm, Glass House and Biotechnology Lab at IGFRI, Jhansi
2105 Institute Address: Indian Grassland and Fodder Research Institute, Jhansi

211 Co-investigator:

2111 Name: Dr. Dinesh Chandra Joshi.
2112 Designation: Scientist (Breeding)
2113 Division/Section: Crop Improvement Division
2114 Location: CR Farm, Glass House and Biotechnology Lab at IGFRI, Jhansi
2115 Institute Address: Indian Grassland and Fodder Research Institute, Jhansi

212 Co-investigator:

2121 Name: Dr. Suresh Kumar.
2122 Designation: Senior Scientist (Biotechnology)
2123 Division/Section: Crop Improvement Division
2124 Location: Glass House and Biotechnology Lab at IGFRI, Jhansi
2125 Institute Address: Indian Grassland and Fodder Research Institute, Jhansi

213 Co-investigator:

2131 Name: Dr. _____
2132 Designation: Senior Scientist (Plant Physiology)
2133 Division/Section: Crop Improvement Division
2134 Location: Glass House and Biotechnology Lab at IGFRI, Jhansi
2135 Institute Address: Indian Grassland and Fodder Research Institute, Jhansi