

## 9. List of Institute Projects

Sr. No	Project Title	Principal investigator	Duration	Remarks
	<b>CROP IMPROVEMENT</b>			
	<b>Sorghum</b>			
1	Breeding for genetically diverse <i>kharif</i> sorghum genotypes with improved grain yield, quality, and resistance to important biotic stresses	C. Aruna	2021-2026	Ongoing
2	Breeding forage sorghum for higher productivity	B. Venkatesh Bhat	2022-2027	Ongoing
3	Genetic enhancement of energy sorghums for renewable fuels and fodders	A.V. Umakanth	2021-2026	Ongoing
4	Genetic enhancement of rabi sorghum adaptive traits for improved varietal performance	Parashuram Patroti	2020-2025	Ongoing
5	Breeding rabi sorghum hybrids with improved productivity	R. Madhusudhana	2023-2027	Newly approved
	<b>Pearl Millet</b>			
6	Improving the yield potential of pearl millet hybrids for favorable and marginal environments	T. Nepolean	2018-2023	<b>Concluded</b>
7	Development of breeding resources and technologies through genomic approaches in pearl millet	T. Nepolean	2023-2028	Newly approved
8	Genetic enhancement of pearl millet for yield and adaptation to arid regions	P. Sanjana Reddy	2021-2026	Ongoing
9	Forage pearl millet improvement for high biomass	Avinash Singode	2021-2026	Ongoing
	<b>Small Millets</b>			
10	Genetic improvement of foxtail millet for grain yield and related traits	K. Hariprasanna	2021-2026	Ongoing
11	Genetic diversification for grain yield and related traits in finger millet genotypes	K.N. Ganapathy	2021-2026	Ongoing
12	Development of end-use specific little millet genotypes with improved grain yield and grain micronutrients	K.N. Ganapathy	2021-2026	Ongoing
13	Genetic improvement of proso millet for yield and protein content	Avinash Singode	2021-2026	Ongoing
14	Improvement of kodo millet for economically important traits and development of markers for cultivar identification	Ch. Deepika	2021-2026	Ongoing
15	Development of dual purpose cultivars with improved quality in barnyard millet	B. Amasiddha	2021-2026	Ongoing
16	Brown top millet- Characterization and genetic improvement	B. Venkatesh Bhat	2017-2022	Extended up to 2025
	<b>Genetic resources management</b>			
17	Utilization of wide hybridization derivatives in breeding program and molecular characterization in sorghum	K.B.R.S. Visarada	2020-2023	Extended up to 2024
18	Nutri-cereals genetic resources management	M. Elangovan	2021-2026	Ongoing
19	Pre-breeding of sorghum and finger millet for specific trait improvement	Karnam Venkatesh	2021-2026	Ongoing
	<b>Seed science and technology</b>			
20	Investigations on genetics of seed vigor and longevity, and effect of foliar plant nutrition on seed yield and quality in small millets	N. Kannababu	2020-2025	Ongoing
21	Studies on cold tolerance in sorghum and foxtail millet	Sooganna	2018-2023	<b>Concluded</b>
22	Studies on seed treatment technologies for better crop establishment and yield in millets	Sooganna	2023-2026	Newly approved
	<b>CROP PRODUCTION &amp; PHYSIOLOGY</b>			
23	Development of intra millet intercropping systems for resilience and sustainability	B. Gangaiah	2020-2024	Ongoing
24	Improving water use efficiency of finger millet & foxtail millet under limited moisture conditions	Swarna Ronanki	2021-2026	Ongoing
25	Physiological dissection of key traits contributing for moisture stress adaptations in post rainy sorghum: with an	S. Srividhya	2020-2025	Ongoing

	emphasis on root architectural traits			
26	Physiological basis of high temperature stress on summer sorghum	Seva Nayak	2022-2025	Ongoing
	<b>CROP PROTECTION</b>			
27	Yield loss assessment in millets due to invasive fall army worm, and its integrated management with special emphasis on sorghum	G. Shyam Prasad	2020-2024	Ongoing
28	Understanding the host-pest interactions of shoot fly, stem borer and fall armyworm in millets and management through semio-chemicals	P.G. Padmaja	2020-2025	Ongoing
29	Integrated pest management for major shoot pests of sorghum during post rainy season in dryland region	B. Subbarayudu	2020-2024	Ongoing
30	Popularization of pearl millet in rice fallows of Krishna Godavari basin, along with study of socio economics, marketing opportunities and biotic stress tolerance	B. Subbarayudu	2023-2026	Newly approved
31	Studies on major insect pests of rabi sorghum and development of EILs	K. Srinivas Babu	2020-2025	Ongoing
32	Assessment of crop losses due to major insect pests and role of enemies in reducing the pest load in millets	A. Kalaisekar	2018-2023	<b>Concluded</b>
33	Exploring new plant traits for resistance against major insect pests in millets	A. Kalaisekar		Newly approved
34	Risk of pesticide sprays on sorghum: Acute and field toxicities on stem borers & shoot bug and their natural enemies	J. Stanley	2020-2024	Ongoing
35	Studies on virulence and host plant resistance on important diseases of millets	I.K. Das	2021-2026	Ongoing
36	Viral diseases of sorghum: A focused study on characterization, developing advanced diagnostic and strategy towards management	Baswaraj Raigond	2022-2027	Ongoing
37	Studies on endophytes for management of major soil-borne diseases of millets	G. Rajesha	2020-2025	Ongoing, modified
	<b>BASIC &amp; STRATEGIC RESEARCH</b>			
38	Generation of genomic resources and its application for the improvement of millets	P. Rajendra Kumar	2021-2026	Ongoing
39	Manipulating SbSERK gene(s) to understand their effect on generating apomixis components through CRISPR-Cas9 mediated gene editing technology	D. Balakrishna	2020-2025	Ongoing
40	Identification of bioactive compounds in the grain and gene mining from millets	Jinu Jacob	2023-2027	Newly approved
41	High calcium accumulation in finger millet and its relationship to grain constituents	R. Venkateswarlu	2020-2023	Extended for 6 months
42	Biochemical characterization of Iron and Zinc rich pearl millet genotypes and their relationship with rancidity, anti-nutrients and seed quality	R. Venkateswarlu	2023-2027	Newly approved
43	Nutritional composition, phenolic profile and bioactivities of sorghum, and foxtail, kodo and proso millet grains	V.M. Malathi	2021-2026	Ongoing
44	Biochemical characterization of millets and millet food products for nutraceuticals and health benefits	V.M. Malathi	2021-2026	Ongoing
	<b>EXTENSION RESEARCH</b>			
45	Yield gap and constraints analysis of sorghum production in traditional area	R.R. Chapke	2021-2026	Ongoing
46	Development of advance information and communication technology (ICTs)- enabled communication and education tools for millets promotion	R.R. Chapke	2023-2026	Newly approved
47	Livelihood security of millets stakeholders through production and processing technologies in NE region	Sangappa	2020-2023	Extended for 6 months
48	Adoption and Impact of Improved millets production technologies in India	A. Srinivas	2022-2026	Ongoing, modified
	<b>VALUE-ADDITIONS &amp; SOCIO-ECONOMICS</b>			
49	Development of millet based composite foods in collaboration with fishery, dairy, horticulture and meat commodities	B. Dayakar Rao	2021-2026	Ongoing
50	Economic analysis of production, marketing, utilization and policy perspectives of sorghum, pearl millet and ragi in India	Anuradha Narala	2020-2025	Ongoing, modified
51	Development of selected value-added products of dairy analogue, pigments extraction from millets and its evaluation for enhanced shelf life	P. Hemashankari	2020-2023	<b>Concluded</b>

52	Development of novel products with different texture characteristics and biodegradable films for packaging of the different value added products made from millets	P. Hemashankari	2023-2026	Newly approved
53	Development of online web application for hybrid and varietal germplasm PME students database information and data retrieval system	P. Mukesh	2021-2023	<b>Concluded</b>
54	Development of online web applications for varietal database information management system	P. Mukesh	2023-2025	Newly approved