

Centre: Nimbkar Agricultural Research Institute, Phaltan

1. Name of the officer-in charge (AICRP- Sorghum):	Dr. Gadekar Mayur Sukadeo
2. Associated Scientists (AICRP- Sorghum) and their discipline:	Ms. Uma Gaikwad (Technical Assistant) Mr. Sunil Jadhao (Technical Assistant)
3. Associated Scientists from state project:	-
4. Annual budget:	Demand : Rs. 24,03,752 Budget released: Rs. 20,00,000
5. Any other financial support:	Nil

Staff changes during the year

Retired			
Transferred			
	Name of post	Previously held by	Currently held by
New recruits	Breeder	Dr. Radhika Prabhakaran	Dr. Mayur Sukadeo Gadekar
	Sweet stalk analyst/Nutritionist	Mrs. Sheetal Ranade Mr. Amol Wakle (left on 21st March, 2017)	Vacant

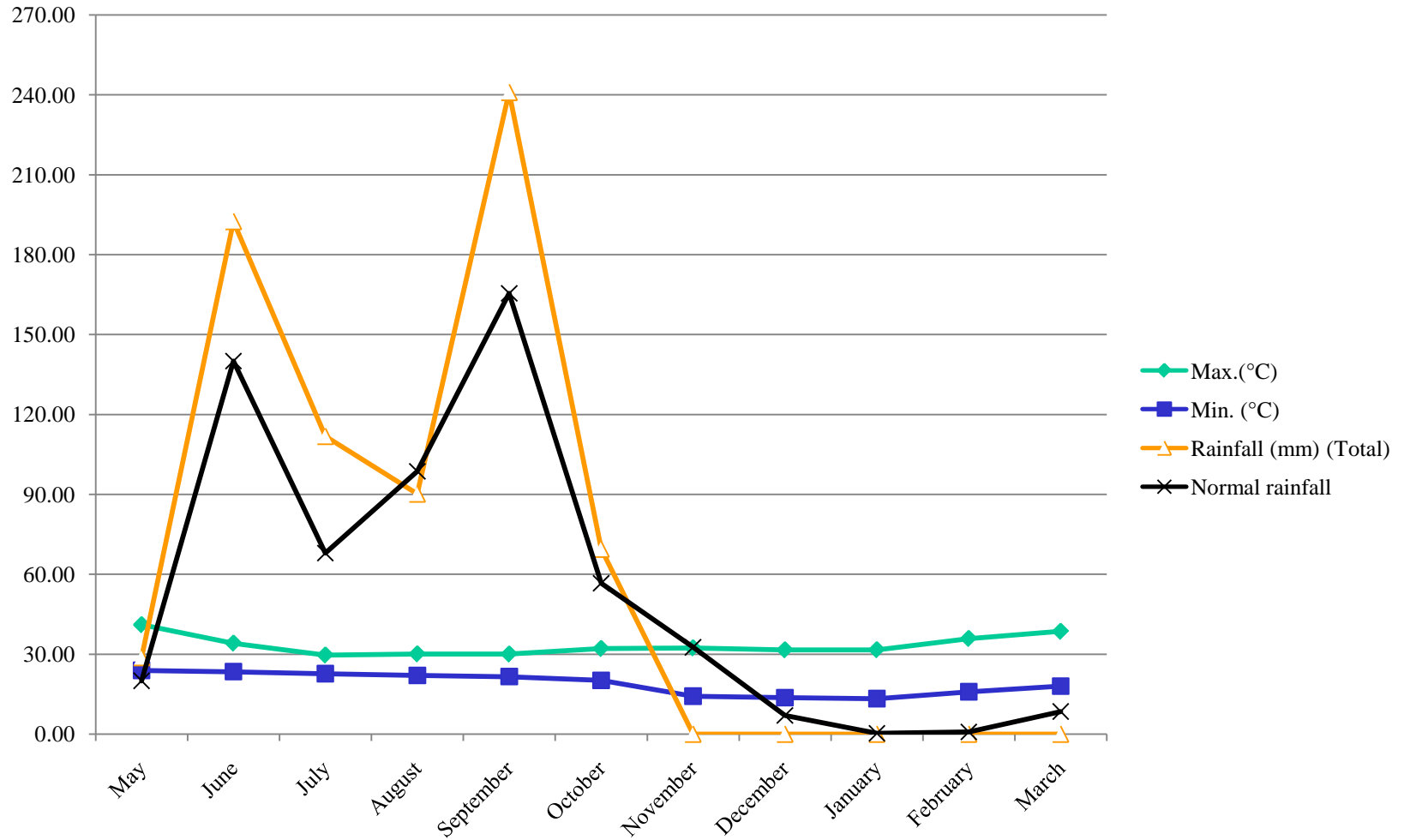
Major thrust at the centre

1. Development of sweet sorghum varieties and hybrids for high yield of biomass, sugar and grain suitable for *kharif* & *rabi* seasons
2. Development of shoot fly and stem borer-tolerant sweet sorghum line.
3. Development of processed food product from Sweet sorghum juice.
4. Strengthening research on sweet sorghum syrup quality and shelf-life.

Seasonal information (2016-17)

	<i>Kharif</i>	<i>Rabi</i>
Rainfall	664.1	69.5
Area covered	8000 m²	13800 m²
Total production	-	-

Weather at Phaltan 2016-17



Trials conducted

Discipline	Season	No. of AICRP-sorghum trials allocated	No. of station trials	No. of trials successfully conducted	Shortfall
Breeding	<i>Kharif</i>	3	9	12	
	<i>Rabi</i>	2	14	16	
Physiology	<i>Kharif</i>	2	0	2	

Major achievements during 2016-17

Discipline: Plant Breeding

Sl. No	Target	Achievement	Shortfall
1	AICRP-Sorghum <i>Kharif</i> and <i>Rabi</i>	IAVHTSS (SPH 1825, SPV 2456, SPV 2457) high biomass, high brix & extraction percent	-
2	AICRP-Sorghum <i>Kharif</i>	High biomass (SPV-2464, SPV-2465 and SPH-1826) for high biomass & high brix	-
3	AICRP-Sorghum <i>Kharif</i>	HNC-III	-
4	Development of high biomass and high grain yield lines	F4 population developed	-
5	Development of Shoot fly-tolerant lines	F2 population developed (2 families)	-
6	Development of stem borer-tolerant line	Two new crosses were made	-
7	Hybrid evaluation trial	SSRH-293 (high biomass and high TSI)	-
8	Preliminary variety trials	9 promising lines were identified will advance to next level screening	-

Major achievements during 2016-17

Discipline: Germplasm

Sl. No	Target	Achievement	Shortfall
1	Maintenance of station germplasm lines	500 lines	-
2	Maintenance of CMS lines	162 A and B lines	-
3	Maintenance of introduced germplasm lines	81 entries	-

Major achievements during 2016-17

Discipline: Entomology

Sl. No	Target	Achievement	Shortfall
1	Development of Shoot fly-tolerant lines	F2 population developed (2 families)	Need laboratory screening technique and expert
2	Development of stem borer-tolerant line	Two new crosses were made	Need laboratory screening technique and expert

Major achievements during 2016-17

Discipline: Plant Pathology

Sl. No	Target	Achievement	Shortfall
	Nil	NA	NA

Major achievements during 2016-17

Discipline: Agronomy

Sl. No	Target	Achievement	Shortfall
	Nil	NA	NA

Discipline: Plant Physiology

Sl. No	Target	Achievement	Shortfall
1	AICSIP - Kharif	1K. (Sets-I & II) Physiological basis of assessing the genetic progress in yield potential of <i>Kharif</i> Sorghum historical released cultivars. (CSH 24, CSV 23) CSI, MSI & plot yield in both set (I & II)	Need standard protocol for measuring physiological parameters
2	AICSIP - Kharif	2K. (Sets-I & II) Physiological characterization of <i>Kharif</i> parental lines released during last four decades (old & new) for yield potential (IIMR-R4, IIMR-R5, IIMR-R8) CSI, MSI & plot yield in both set (I & II)	Need standard protocol for measuring physiological parameters

Major achievements during 2016-17

Discipline: Extension including FLDs

Sl. No	Target	Achievement	Shortfall
	Nil	NA	NA

Constraints

S. No	Constraint	Suggestions
1	Problem in conducting the physiological trials (1k and 2k)	<ul style="list-style-type: none">• Conduct small training for assessment of physiological parameters• Distribute standard protocols, procedures and formulae for measuring different physiological parameters.

Publications from AICRP-Sorghum centre

Formal	Number
Journal Papers (International)	As 1 st author: Nil
	As co-author: Nil
Journal Papers (National)	As 1 st author: Nil
	As co-author: Nil
Review papers	As 1 st author: Nil
	As co-author: Nil
Posters	Nil
Popular	
Popular articles	Nil
Field days organized/attended	1

Other activities rendered by all scientists

Sl. No	Activities	Number	% time spent
1	Trainings organized by centre	Nil	
2	Trainings attended by scientists	01	
3	Guiding students	Nil	
4	Institutional activities	Nil	
5	Recognitions	Nil	

Major activities/objectives for 2017-18

Discipline	Major activities envisaged
Food processing	<ul style="list-style-type: none"> ➤ Standardizing the protocol for vinegar preparation from sweet sorghum juice ➤ Strengthening research on sweet sorghum syrup quality, shelf life, mechanization of syrup production and exploring the biochemical aspects of syrup (antioxidants, total digestibility, aconitic acid etc)
Breeding	<ul style="list-style-type: none"> ➤ Identification and development of shoot fly and stem borer-tolerant lines. New crosses will be made ➤ Identifying the lines with high biomass, juice yield and juice brix ➤ Utilizing the newly developed R- lines from network breeding programme for development of hybrids ➤ Screening of new entries in PVTs in both <i>Kharif</i> and <i>Rabi</i> for identifying line suitable for growing in both the seasons