NOTABLEACHIEVEMENTSOFAGRICULTURAL RESEARCHSTATION, BAPATLA

S.No.	Description		
1	Name of RARS/Research station/AICRP/KVK		Agricultural Research Station, Bapatla
2	Year ofestablishment		The Agricultural Research Station, Bapatla was originally established as Rice Research Unit in 1961 at Tenali and later it was shifted to Agricultural College Farm, Bapatla in 1973 and upgraded as Agricultural Research Station during 2017
3	Mandatecrops		Paddy
4	Notableachievements(inbullets)		
a	**Samba Mahsuri (BPT 5204)** (Parentage: GEB24/TN1/Mahsuri) was released during 1986. By virtue of its medium slender grain and excellent cooking quality, it is widely preferred by millers and traders. BPT 5204 is getting extra premium price in the market than the other paddy varieties, and gained popularity even in Telangana, Raichur& Tungabhadra Ayakut area in Karnataka and Tamilnaduin Uttarpradesh and Jharkhand states. Iti is grown in more than 10.0 lakh ha. occupying about 25% of the total paddy area in Andhra Pradesh &Telangana and also popular at national and international level because of its' excellent grain quality and consumer preference. Every year, about 700 quintals of breeder seed is being produced by ANGRAU and is supplied to various public& Private agencies allover India		

b	**SonaMahsuri (BPT 3291)** (Parentage: Sona/Mahsuri): is also very popular in North coastal region of our state along with few pockets of Karnataka, Orissa and Chattisgarh states. Every year about 50 quintals of breeder seed is being produced by ARS, Bapatla and it is cultivated in about 80,000 acres		**Sona Mahsuri (BPT 3291)**  **Duration:135-140days: Moderately resistant to blast** **Fine grain with good cooking quality**
c	**BhavapuriSannalu (BPT 2270)** (Parentage: BPT 5204/CR MR1523) was released in 2010. It has 160-165 days duration with fine grain quality combining tolerance to BPH & blast and is suitable to single cropped wetlands of Andhra Pradesh. After it'srelease, BPT 2270 occupied about 20,000 to 25,000 acres in single cropped areas of Krishna zone and became popular among farmers & consumers because of it's excellent grain & cooking quality and is getting premium price in the market		
	.**Bhavathi (BPT 2782) (Parentage:NLR145/MTU 2077):**Released during 2020**.** BPT 2782 is a non lodging culture with 145 days duration. It is a high yielding culture with medium slender grain coupled with good cooking quality. It is moderately resistant to Blast and BPH and it recorded tolerance to water stress, salinity and possess anaerobic germination also.		

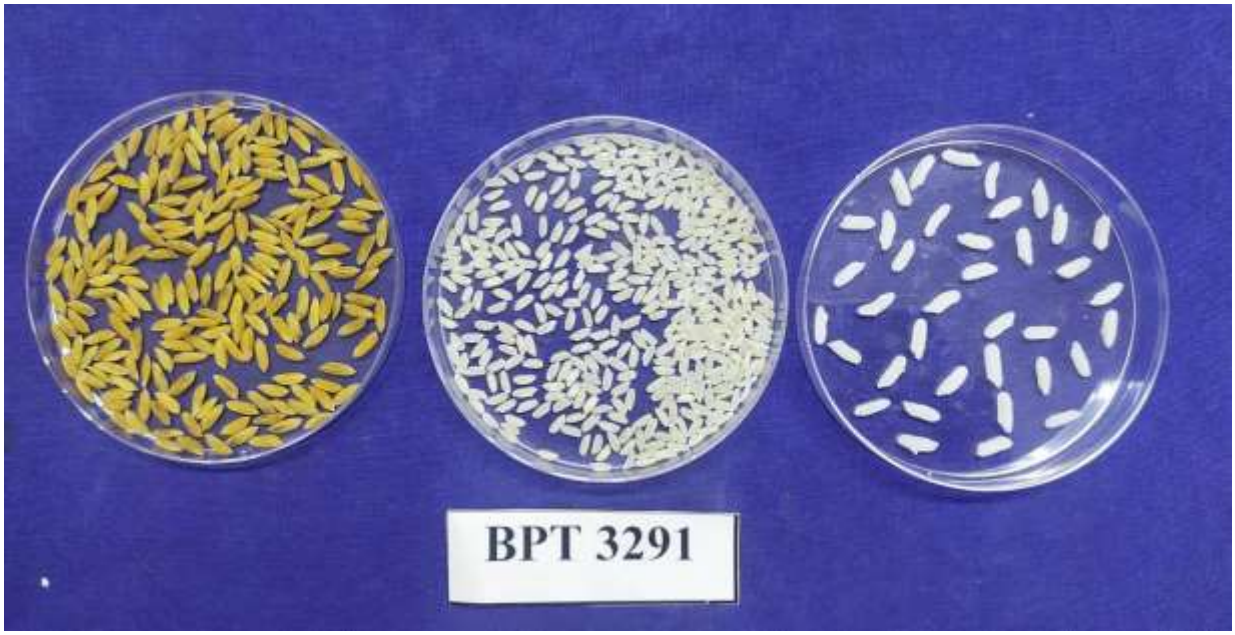
	Teja (BPT 2595) (Parentage: Mutant of BPT 2270): BPT 2595 was developed through mutation breeding programme and was released as Teja during 2019 by SVRC. It is a non lodging culture which matures in 150 days and possess medium slender grain with excellent cooking quality. Besides high yield potential, it is moderately resistant to Blast and BPH.		
	BPT 2841(MTU7029/IRGC18145/MTU 1081): It is a black pericarp colored genotype proposed completed second year of minikit testing. It has 130-135 days duration with medium slender grain, straw glume and excellent cooking quality. It has high antioxidant activity and recorded high protein, Zn & Fe content also. Unlike other desi black rice varieties, it possess intermediate amylose content& alkali spreading value, hence cooks soft and flaky and is suitable for raw rice. Besides high yield potential, it is moderately resistant to Blast and BPH.		

ANGRAU TECHNOLOGIES		
	Category of Technology	Crop Production
I	Name of the Technology	Nutrient management in different rice varieties
II	Description of Technology (Attach relevant photo if any)	**1. Optimum dose of Nitrogen fertilizer recommendation for different varieties** 200 Kg N/ha – Bhavathi(BPT 2782) Bapatla Mashuri(BPT2295) Akshya (BPT-2231) 240 kg N/ha- Bhavapurisannalu (BPT 2270) **2.Recommended date of harvest for good yield and quality grain:** Harvesting at 30 to 35 days after flowering (DAF) was found to be suitable for all of the grain characters and quality of rice varieties like BPT 5204, BPT 2270, BPT 2231, NLR 34449, NLR 28523 and MTU 1010. **3.Recommendation of rice hybrids for Krishna western delta** Five hybrids (DRRH2, DRRH3, KRH2, PA6201 and CRHR32) were tested in among these hybrids PA6201 recorded highest yield and yield attributing characters. **4. Recommendation of effective split doses of nitrogen application for good yield** Application of nitrogen 1/2 at basal+1/4 at maximum tillering stage+1/4 at panicle initiation stage produced highest Yield attributes, grain yield straw yield and nitrogen uptake both in grain and straw of rice followed by 1/3 N at basal+1/3 N at maximum tillering stage+1/3 N at panicle initiation stage. **5. Recommendations of sowing window for higher yields of different rice varieties in Krishna western delta**

		July 15th to 1st August was the optimum sowing window for Krishna western delta for the varieties BPT 5204, BPT 2270, BPT 2231 and BPT 1768. **6.Recommendation of aromatic rice varieties in Krishna western delta:** PUSA 1121 and Sugandha samba were recommended for Krishna western delta as these recorded higher yields.
III	Application/Use	• To fix the optimum dosages of fertilizers to different rice varieties • Reduce the soil pollution • Reduce the wastage of nutrients/fertilizers through seepage or volatilization losses • Reduce the cost of cultivation • Reduce the pesticide application • Increase the micro nutrient content in the rice grain
IV	Unit cost of operation	
V	Status of commercialization	Yes
	Addresses of Licenses or manufacturer	
VI	Contact address for further details	Agricultural Research Station, Bapatla.

Paddy varieties released from Agricultural Research Station, Bapatla

Field view of BPT 3291



Paddy, rice and cooked rice sample of BPT 3291

Sona Mahsuri (BPT 3291)

1	Crop	Paddy
2	Variety	Sona Mahsuri (BPT 3291)
3	Parentage	Sona/Mahsuri
4	Breeding Method	Pedigree method
5	Year of release	1982
6	Release through CVRC/SVRC	SVRC
7	Crop duration	135-140 days
8	Season	*Kharif and Rabi*
9	Potential Yield	5.5-6.0 t/ha
10	Area Suitability	North coastal Zone of Andhra Pradesh
11	Salient features	Resistant to neck blast and tolerant to gall midge, Non-lodging and non-shattering and 2 weeks dormancy

Field view of BPT 1235

Paddy, rice and cooked rice sample of BPT 1235

Dhanya Lakshmi (BPT 1235)

1	Crop	Paddy
2	Variety	Dhanya Lakshmi (BPT 1235)
3	Parentage	Sabarmathi/W12708
4	Breeding Method	Pedigree method
5	Year of release	1982
6	Release through CVRC/SVRC	SVRC
7	Crop duration	120 days
8	Season	*Rabi*
9	Potential Yield	6.5-7.0 t/ha
10	Area Suitability	Suitable for rabi season
11	Salient features	Tolerant to gall midge and stem borer and awned variety, Non-lodging and non-shattering

Field view of BPT 5204

Paddy, rice and cooked rice sample of BPT 5204

Samba Mahsuri (BPT 5204)

1	Crop	Paddy
2	Variety	Samba Mahsuri (BPT 5204)
3	Parentage	GEB 24/TN 1/Mahsuri
4	Breeding Method	Pedigree method
5	Year of release	1986
6	Release through CVRC/SVRC	SVRC
7	Crop duration	140-145 days
8	Season	*Kharif and Rabi*
9	Potential Yield	6.0 t/ha
10	Area Suitability	Suitable for KC Canal area of Andhra Pradesh, Telangana and Karnataka
11	Salient features	Non-lodging and non-shattering, Non-dormant, excellent cooking quality

Field view of BPT 4358

Paddy, rice and cooked rice sample of BPT 4358

Surya (BPT 4358)

1	Crop	Paddy
2	Variety	Surya (BPT 4358)
3	Parentage	SonaMahsuri/ARC 6650
4	Breeding Method	Pedigree method
5	Year of release	1999
6	Release through CVRC/SVRC	SVRC
7	Crop duration	145 days
8	Season	*Kharif and Rabi*
9	Potential Yield	6.0-7.0 t/ha
10	Area Suitability	Double cropped wet lands particularly BPH and WBPH endemic areas of NSP and Krishna Western Delta for Kharif season
11	Salient features	Resistant to BPH and WBPH, one week seed dormancy, Non-lodging and non-shattering, good cooking quality, non-sticky grains of fine quality with good elongation ratio on cooking

Field view of BPT 1768

Paddy, rice and cooked rice sample of BPT 1768

Bapatla Sannalu (BPT 1768)

1	Crop	Paddy
2	Variety	Bapatla Sannalu (BPT 1768)
3	Parentage	BPT 3301/Mahsuri mutant
4	Breeding Method	Pedigree method
5	Year of release	2002
6	Release through CVRC/SVRC	SVRC
7	Crop duration	165 days
8	Season	*Kharif*
9	Potential Yield	6.0-6.5 t/ha
10	Area Suitability	Single cropped wetlands of Andhra Pradesh with particular reference to NSP area and Krishna Western delta during kharif under normal as well as late planting conditions
11	Salient features	Tolerant to BLB, Blast and BPH and with stand complete submergence up to 7 days, one week dormancy, Non-lodging and non-shattering, medium slender grain

Field view of BPT 2270

Paddy, rice and cooked rice sample of BPT 2270

BhavapuriSannalu (BPT 2270)

1	Crop	Paddy
2	Variety	BhavapuriSannalu (BPT 2270)
3	Parentage	BPT 5204/CR 15 MR 1523
4	Breeding Method	Pedigree method
5	Year of release	2010
6	Release through CVRC/SVRC	SVRC
7	Crop duration	160-165 days
8	Season	*Kharif*
9	Potential Yield	6.0-6.5 t/ha
10	Area Suitability	Single cropped wetlands of Andhra Pradesh particularly to NSP Ayacut area and Krishna Western delta during kharif season
11	Salient features	Tolerance to BPH and blast and submergence up to one week, Non-dormant, Non-lodging and non-shattering, excellent cooking quality with high head rice recovery

Paddy, rice and cooked rice sample of BPT 2231

Akshaya (BPT 2231)

1	Crop	Paddy
2	Variety	Akshaya (BPT 2231)
3	Parentage	BPT 4358/IR 64
4	Breeding Method	Pedigree method
5	Year of release	2010
6	Release through CVRC/SVRC	SVRC
7	Crop duration	145-150 days
8	Season	*Kharif*
9	Potential Yield	6.0-6.5 t/ha
10	Area Suitability	Double cropped areas of Guntur and Krishna Districts
11	Salient features	Tolerant to BPH and blast, Non-dormant, Non-lodging and non-shattering, cooking quality is excellent and non-sticky nature

Paddy, rice and cooked rice sample of BPT 2295

Bapatla Mahsuri (BPT 2295)

1	Crop	Paddy
2	Variety	Bapatla Mahsuri (BPT 2295)
3	Parentage	BPT 1768/NLR 33641
4	Breeding Method	Pedigree method
5	Year of release	2018
6	Release through CVRC/SVRC	SVRC
7	Crop duration	150-155 days
8	Season	*Kharif*
9	Potential Yield	6.5-7.0 t/ha
10	Area Suitability	Single cropped areas in Krishna Zone of Andhra Pradesh
11	Salient features	Tolerant to BPH and blast, tolerant to salinity and flash flood conditions for about 7-10 days, one week seed dormancy, Non-lodging and non-shattering, medium slender translucent grain with good cooking quality

Paddy, rice and cooked rice sample of BPT 2595

Teja (BPT 2595)

1	*Crop*	Paddy
2	Variety	Teja (BPT 2595)
3	Parentage	Mutant of BPT 2270
4	Breeding Method	Mutation breeding
5	Year of release	2019
6	Release through CVRC/SVRC	SVRC
7	Crop duration	145-150 days
8	Season	*Kharif*
9	Potential Yield	6.5-67.0 t/ha
10	Area Suitability	Single cropped areas of Guntur, Prakasam and Krishna District
11	Salient features	Tolerant to BPH and blast, Non-dormant, Non-lodging and non-shattering, excellent cooking quality

Field view of BPT 2411

Paddy, rice and cooked rice sample of BPT 2411

Sasya (BPT 2411)

1	Crop	Paddy
2	Variety	Sasya (BPT 2411)
3	Parentage	BPT 5204/BPT 4358
4	Breeding Method	Pedigree method
5	Year of release	2020
6	Release through CVRC/SVRC	SVRC
7	Crop duration	140-145 days
8	Season	*Kharif and Rabi*
9	Potential Yield	7.0-7.5 t/ha
10	Area Suitability	Single and double cropped wetlands of Andhra Pradesh particularly to NSP Ayacut area, Krishna Western Delta and North coastal zone during kharif season in place of BPT 3291.
11	Salient features	Tolerant to BPH, Blast and Stem borer, tolerant to water stress, salinity and possess anaerobic germination ability, one week dormancy, Non-lodging and non-shattering

Field view of BPT 2782

Paddy, rice and cooked rice sample of BPT 2782

Bhavathi (BPT 2782)

1	Crop	Paddy
2	Variety	Bhavathi (BPT 2782)
3	Parentage	NLR 145/ MTU 2077
4	Breeding Method	Pedigree method
5	Year of release	2020
6	Release through CVRC/SVRC	SVRC
7	Crop duration	140-145 days
8	Season	*Kharif*
9	Potential Yield	7.0-7.5 t/ha
10	Area Suitability	Single and double cropped wetlands of Andhra Pradesh particularly to NSP Ayacut area Krishna Western delta during kharif season
11	Salient features	Tolerant to BPH and blast, one week dormancy, Non-lodging and non-shattering and excellent cooking quality