

भाकृअनुप - राट्रीय चावल अनुसंधान संस्थान,कटक-753006(ओडिशा),भारत
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Dated 22/11/2021

कार्यालय आदेश OFFICE ORDER No. 73/Tech

On the recommendation of the Price Fixation Committee in it's meeting held on 02.11.2021, the Director, ICAR- National Rice Research Institute, Cuttack-6 is pleased to fix the rates for the following sample of analysis with immediate effect until further orders.

Sl. No.	Grain quality test name	Parameters	Analysis cost per sample (rs.)*	Rate to be charged per sample including contingencies (Rs.)
1.	Amino acid analysis using WATERS ACQUITY UPLC SYSTEM-H along with fluorescence detector	17 amino acids: HIS, SER, ARG, GLY, ASP, GLU, THR, ALA, PRO, CYS, LYS, TYR, MET, VAL, ILE, LEU, PHE	6300.00	6930.00
2.	GC-MS/MS for volatile identification and estimation using Thermo Scientific TSQ 9000	Scan mode 2-AP quantification	B- 4680.00 M-4880.00 P-5080.00 5600.00	B- 5150.00 M-5370.00 P-5590.00 6160.00
3.	Calibration based non-destructive analysis using Near Infra-Red Spectroscopy	Moisture%, Protein% and Amylose%	415.00	460.00
4.	Estimation of Color indices using HunterLab Colorimeter for rice-based value-added products, colored rice and straw	L, a, b, Whiteness Index, ΔL, Δa, Δb and ΔE.	385.00 (B) 585.00 (M) 335.00 (S)	B- 420.00 M-640.00 S-370.00
5.	Pasting properties of rice and rice-based products using Rapid visco-analyzer (RVA)	Pasting parameters: peak viscosity, break down viscosity, set back viscosity (in RVU), peak temperature (°C).	1455.00 (B) 1655.00 (M)	B- 1600.00 M-1820.00
6.	Falling Number of rice and rice-based products	FN value (in Centipoise): starch properties	1280.00 (B) 1480.00(M)	B- 1410.00 M-1630.00
7.	Estimation of Textural properties of rice and rice-based value-added products	PTA, Hardness, fracturability, extensibility, adhesiveness, etc.	B 410.00 M 610.00 P 810.00	B- 450.00 M-670.00 P-890.00
8.	Reducing sugar estimation by Nelson-Somogyi Method	Total reducing sugar in the sample expressed in mg/g or percentage	1200.0	1320.00
9.	Total Sugar estimation by Anthrone Reagent method	Total sugar content in the sample expressed in mg/g or percentage	1200.0	1320.00
10.	Starch estimation by Perchloric Acid method	Starch content in the sample will be provided in mg/g or percentage	Rs. 1350	1490.00
11.	Amylose in rice sample and rice-based products using iodine solution	Amylose in rice sample expressed in mg/g or as percentage.	1155.00 (B) 1355.00 (M)	B- 1270.00 M-1490.00
12.	Milling properties	Hulling%, Milling% and Head Rice recovery% of rice sample.	200.00 (H%) 200.00 (M%) 355.00 (HRR %)	(H%)-220.00 (H%)-220.00 (HRR%)-390.00
13.	Physical parameters of grain, length, breadth, grain type and chalkiness of rice sample	Length and breadth of grain in millimetre, grain type determination as per American standards and Chalky grain %.	575.00 (B) 775.00 (M)	B- 630.00 M-850.00
14.	Alkali spreading value of grain in rice sample	Alkali spreading value of the grain based on visual comparison with standard chart.	690.00 (B) 890.00 (M)	B- 750.00 M-980.00
15.	Gel consistency of rice sample	Gel consistency (in mm) of the rice sample as per method described by Juliano B.O, 1980.	890.00 (B) 1090.00 (M)	B- 980.00 M-1200.00
16.	Thousand grain weight	Thousand grain weight of the sample is reported (in mg) by manual method.	515.00 (B) 715.00 (M)	B- 570.00 M-790.00
17.	Water Uptake for cooking of rice sample	Water uptake of rice sample expressed in ml/100g.	660.00 (B) 860.00 (M)	B- 730.00 M-950.00
18.	Volume expansion ratio after cooking of rice sample	Initial volume before cooking and final volume after cooking are expressed in milliliters and volume expansion ratio is calculated.	660.00 (B) 860.00 (M)	B- 730.00 M-950.00

19.	Kernel Length after cooking (KLAC) of rice sample	Kernel length after cooking is expressed in mm.	660.00 (B) 860.00 (M)	B- 730.00 M-950.00
20.	Elongation ratio of rice sample	Initial Kernel length before cooking and final kernel length after cooking are expressed in mm and Kernel elongation ratio is calculated.	710.00 (B) 910.00 (M)	B- 780.00 M-1000.00
21.	Total crude protein estimation by Kjeldahl Method	Total crude protein in the rice sample in mg/g or percentage.	900.00 (B) 1100.00 (M)	B- 990.00 M-1210.00
22.	Zinc estimation in Rice sample (grain or straw) using AAS (Atomic Absorption Spectrophotometer)	Zinc content in grain/ straw/ rice-based product expressed in ppm per sample of brown rice or milled rice.	2010.00 (B) 2210.00 (M)	B- 2210.00 M-2430.00
23.	Rice grain Iron (Fe) and Zinc (Zn) concentrations estimation through pre-calibrated methods in ED-XRF	Non-destructive estimation of Iron (Fe) and Zinc (Zn) concentrations in paddy, brown or milled rice grains, paddy straw and rice-based products expressed in mg/g.	425.00 (B), 625.00 (M) (With three calibrations)	B- 470.00 M-690.00 (With three calibrations)
			365.00 (B), 565.00 (M) (With single calibration)	B- 400.00 M-620.00 (With three calibrations)
24.	Total anthocyanin content (TAC) using Spectrophotometer	Total anthocyanin content expressed as mg per 100g.	845.00 (B)	930.00
25.	Gammaoryzanol content using Spectrophotometer	Gamma-oryzanol in sample expressed as mg per 100g.	895.00 (B)	990.00
26.	Total phenolic content (TPC) using Spectrophotometer	Total phenolic content in the sample expressed as mg catechol equivalent per 100g.	845.0 (B)	930.00
27.	Total flavonoid content (TFC) using Spectrophotometer	Total flavonoid content in the sample expressed as mg Catechine equivalent per 100g.	945.0 (B)	1040.00
28.	Total Fat/Oil estimation by Soxhlet apparatus	Total oil or fat content in the sample will be provided in mg/g or percentage	800.00 (B)	880.00
29.	DNA Fingerprinting of rice genotypes	DNA Fingerprint report of a rice genotype w.r.t checks or parents.	37870.00+ (Run-50)	41660.00+ (Run-50)
			56100.00+ (Run-100)	61710.00+ (Run-100)

Note:- * This includes cost of sample preparation hulling, milling, grinding, straw sizing, wherever applicable.

(S.K. Jena)
Assistant Administrative Officer
Technical Section

Distribution:-

1. Office Order Book
2. Dr. (Mrs.) Sutapa Sarkar, Scientist, Crop Improvement Division, NRRI, Cuttack
3. Chairman, Price Fixation Committee, NRRI, Cuttack for information.
4. P.A. to Senior Administrative Officer, NRRI, Cuttack

5. Senior Finance & Accounts Officer, NRRI, Cuttack
6. Assistant Administrative Officer (B&C), NRRI, Cuttack
7. Assistant Finance & Accounts Officer, NRRI, Cuttack
8. OIC, ARIS Cell, NRRI, Cuttack with a request to upload this office order in the Institute website for reference.
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