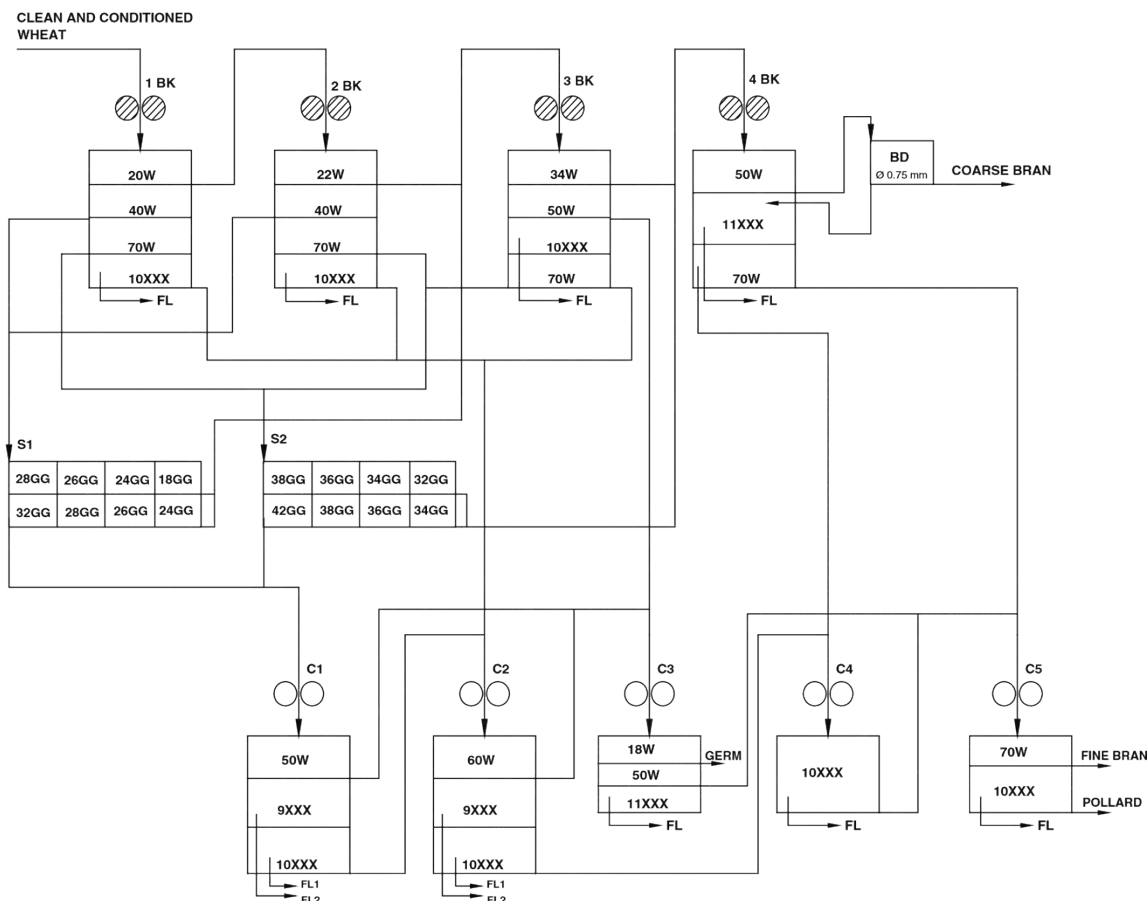


Stream-Specific Functional and Rheological Variability in Roller-Milled Wheat Flours: A Sustainable Approach to Cookie Quality Optimization and Flour Utilization

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Sieves W	Opening Micron	Sieves GG	Opening Micron	Sieves XXX	Opening Micron
18W	1220	18GG	1180	9XXX	150
20W	1110	24GG	850	10XXX	132
22W	990	26GG	800	11XXX	118
34W	635	28GG	710		
40W	525	32GG	600		
50W	410	34GG	560		
60W	310	36GG	530		
70W	290	38GG	500		
		42GG	450		

SF. 1 Milling flow sheet of ISMT pilot plant. BK = Break, C = Reduction, S = Purifier, BD = Bran Duster, FL = Flour, W = Wire, GG = Grit Gauze, XXX = Flour Sieve.

BK = Break, C = Reduction, S = Purifier, BD = Bran Duster, FL = Flour, W = Wire, GG = Grit Gauze, XXX = Flour Sieve. Source: Sakhare & Inamdar, 2014

Table 1: factor loadings for PC1 and PC2

Principal Component Number	Eigenvalues	PC 1	PC 2	PC 1	PC 2	
		35.79%	20.96%	35.79%	20.96%	
Eigenvalue	Eigenvalue	Loading Plot	Loading Plot	Loading Plot	Loading Plot	Loading Plot
1	10.38019315	0	0	0.08628231	0.302234235	BG
2	6.079249982	0	0	0.189778216	0.295487755	Viscosity
3	4.160774441	0	0	0.199457759	0.277344702	HPV
4	2.316856357	0	0	0.158742202	0.244743881	CPV
5	1.897739364	0	0	0.053180336	0.209607618	BD
6	1.638772228	0	0	0.125468997	0.22105218	To
7	0.947150886	0	0	-0.127746	0.304702509	Tp
8	0.828452834	0	0	0.172096169	0.274973519	Te
9	0.50638811	0	0	0.159917538	0.218703617	ΔH (J/g)
10	0.244422648	0	0	0.226291668	0.143755035	WA
11	4.44E-29	0	0	0.148226558	0.143553735	DDT
		0	0	0.10291133	0.239309285	DS
		0	0	0.225283897	0.062245286	MTI
		0	0	-0.22819051	0.035789049	ZN
		0	0	0.178411293	0.225259782	FN
		0	0	0.082542662	0.13270235	SD
		0	0	0.264420462	0.12324776	WHC
		0	0	0.190206216	0.176381212	OHC
		0	0	0.182186618	0.182790591	SP (55)
		0	0	0.110035381	0.038425848	SP (75)
		0	0	0.171437741	0.116828943	SP (98)
		0	0	0.216653411	0.136530658	SI (55)
		0	0	0.183592543	0.023912729	SI (75)
		0	0	0.092250969	0.180309232	SI (98)
		0	0	0.199118802	0.136328218	Dia (um)
		0	0	0.217610197	0.095776901	Width
		0	0	0.260721266	0.104661664	L*
		0	0	0.269448494	0.114131066	a*
		0	0	0.280564396	0.071323289	b*