

TABLE 13.—COOKING DATA AND YIELDS OF SULPHITE PULPS COOKED AT THE GREAT WESTERN PAPER CO. MILL, LADYSMITH, WISCONSIN.

Cook No.	Species of Wood.	Moisture Content, Oven-dry Basis.	Temperature and Pressure Curve.	Acid-composition.			Total Wet Weight of Screened Pulp.	Oven-dry Weight of Pulp.	Total Weight of Pulp, Oven-dry Basis.	Steam-consumption.
				Total SO ₂ .	Free SO ₂ .	Combined SO ₂ .				
		Per Cent.	Figure.	Per Cent.	Per Cent.	Per Cent.	lb.	Per Cent.	lb.	lb.
1	Insignis pine ..	52.5	I	5.33	3.77	1.56	22,540	32.5	7,315	..
2	Tawa No. 1 ..	37.5	II	4.92	3.45	1.47	22,660	31.1	7,050	24,832
3	Tawa No. 2 ..	37.5	III	4.93	3.46	1.47	20,075	34.7	6,965	..
4	Tawa No. 3 ..	37.5	IV	4.75	3.10	1.65	24,075	34.6	8,330	29,184
5	50 per cent. Insignis pine, 50 per cent. spruce	..	V	4.92	3.67	1.25	17,890	33.7	6,030	..

TABLE 14.—COMMERCIAL SULPHITE PULPING TRIALS AT LADYSMITH, WISCONSIN: PULP-STRENGTH DATA.—PHYSICAL PROPERTIES OF THE UNBLEACHED SULPHITE PULPS COOKED AT THE GREAT WESTERN PAPER CO. MILL, LADYSMITH, WISCONSIN.

Cook No.	Species.	Bursting-strength as determined by the Ball-mill Method (Points per Pound per Ream).				Folding-endurance as determined by the Ball-mill Method (Double Folds).				Tearing-strength as determined by the Ball-mill Method, (Grammes per Pound per Ream).			
		20 min.	40 min.	60 min.	80 min.	20 min.	40 min.	60 min.	80 min.	20 min.	40 min.	60 min.	80 min.
1	Insignis pine ..	0.52	0.66	0.73	0.64	14	61	158	154	1.30	1.40	1.36	1.39
2	Tawa No. 1 ..	0.29	0.42	0.51	0.52	1	4.5	11	31	0.50	0.74	0.81	0.93
3	Tawa No. 2 ..	0.25	0.41	0.53	0.58	1.75	5.5	11.5	20.5	0.83	0.98	1.05	1.10
4	Tawa No. 3 ..	0.23	0.37	0.47	0.51	1.75	4	12	7	0.51	0.66	0.78	0.89
5	50 per cent. Insignis pine, 50 per cent. spruce	0.57	0.71	0.82	0.78	38	93	155	266	1.48	1.75	1.66	1.61

Cook No.	Species.	Tensile-strength as determined by the Ball-mill Method (Metres).				Stretch as determined by the Ball-mill Method (Per Cent.).				Colour as determined by the Hess-Ives Tint-photometer.		
		20 min.	40 min.	60 min.	80 min.	20 min.	40 min.	60 min.	80 min.	Red.	Green.	Blue.
										Per Cent.	Per Cent.	Per Cent. White.
1	Insignis pine ..	2,683	2,936	3,878	3,478	7.75	8.75	5.87	6.12	75	65	60
2	Tawa No. 1 ..	2,068	2,754	3,077	3,380	3.25	5.75	6.12	6.37	73	63	60
3	Tawa No. 2 ..	1,905	2,760	3,082	3,316	2.62	5.0	6.37	5.12	71	62	57
4	Tawa No. 3 ..	2,033	2,661	3,032	2,788	3.87	4.75	5.62	4.62	69	62	58
5	50 per cent. Insignis pine, 50 per cent. spruce	2,970	3,210	3,970	3,905	8.25	10.0	8.37	7.5	76	70	63