

TABLE 6.—LABORATORY GRINDING TESTS OF NEW ZEALAND AND NORTH AMERICAN WOODS: QUALITY AND STRENGTH OF WATER-LEAF PULPS.

Grinder-run No.	Species.	Freeness.	Microscopic Classification Number.*	Strength of Water-leaf Pulp.				Colour Analysis.				Interpretation of Colour Analysis.			
				Weight per Ream. (24 in. by 36 in. —300.)	Thickness. per Ream.	Bursting per Ream.	Tearing.	Dirt Particles per Square Inch.	Red.	Green.	Blue.	White.	Primary Hue.		Secondary Hue.
													Tint.	Lumi-nosity.	Tint.
1	Spruce	Cs.	Below No. 4	lb.	In.	Points.	Grm.	Number.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Orange	5.8	Yellow
2	Insignis pine	122	No. 3	86	0.0146	0.17	44.0	9	82	73	63	63	Orange	5.0	Yellow
3	Spruce	167	No. 4	96	0.0156	0.25	75.2	37	77	66	58	58	Orange	7.0	Yellow
4	Insignis pine	88	Between Nos. 2 & 3	113	0.0146	0.28	59.2	5	83	75	66	66	Orange	5.1	Yellow
5	Spruce	40	No. 2	97	0.0161	0.41	115.2	11	80	71	63	63	Orange	5.8	Yellow
6	Insignis pine	67	No. 4	92	0.0149	0.31	75.2	11	81	74	67	67	Orange	4.5	Yellow
7	Insignis pine	233	No. 3	86	0.0158	0.24	76.8	6	79	70	61	61	Orange	5.1	Yellow
8	Insignis pine	147	Between Nos. 1 & 2	101	0.0144	0.29	74.4	9	80	72	63	63	Orange	5.1	Yellow
9	Spruce	86	Below No. 4	118	0.0139	0.38	85.6	46	75	65	58	58	Orange	6.4	Yellow
10	Tawa†	105	Below No. 4	118	0.0153	0.27	71.2	5	84	75	64	64	Yellow	5.9	Orange
11	Tawa†	133	Below No. 4	86	0.0118	0.16	34.2	7	84	76	69	69	Orange	5.1	Yellow
12	Tawa†	228	Below No. 4	228	0.0157	0.17	63.6	6	84	75	69	69	Orange	5.8	Yellow
13	Insignis pine†	100	Below No. 4	104	0.0157	0.11	44.2	18	83	71	66	66	Orange	4.5	Yellow
14	Insignis pine§	..	..	..	..	..	..	6	82	72	63	63	Orange	6.4	Yellow
15	Tawa	..	..	..	..	..	..	15	80	71	65	65	Orange	4.5	Yellow
16	Insignis pine†	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	Insignis pine§	..	..	76.5	0.0127	0.33	66.8	0	79	68	62	62	Orange	7.0	Yellow
18	Insignis pine	..	..	127.3	0.0189	0.37	98.0	5	77	67	60	60	Orange	6.4	Yellow
P655	Commercial groundwood**	..	Between Nos. 1 & 2	106.4	0.0169	0.33	82.8	1	80	70	61	61	Orange	6.4	Yellow
P658	Commercial groundwood**	120	No. 2	57	0.0121	0.22	57.6	5	84	75	68	68	Orange	5.8	Yellow
		77		36	0.0077	0.31	44.0	3	77	72	65	65	Yellow	4.1	Orange

* Based on standards selected from U.S. Department of Agriculture Bulletin No. 343. See Photomicrographs.
† It was necessary to add commercial sulphite pulp (10 per cent. of the total) to the Tawa groundwood in order to run it over the Fourdrinier machine. The freeness and colour analysis were made on the pulp before mixing with the sulphite.
‡ Wood selected free of blue stain. Centre of billets bored out and knots removed.
§ Wood selected free of blue stain. Centre of billets bored out and knots removed.
|| Mixture of blue-stained and unstained wood. Centre of billets bored out and knots removed.
** The strength tests on the commercial pulps were made on hand sheets.