

TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

LO-11

462

No. B-15

AVERAGE WEIGHTS OF VARIOUS SPECIES OF WOOD

In making the weight determinations given in the following table, the U. S. Forest Products Laboratory used small, clear specimens secured from the top 4 feet of the 16-foot butt logs of typical trees. Wood thus selected probably averages a trifle heavier than the wood in ordinary ties, structural timbers, poles, and posts. Such large pieces usually include the pith, or are taken from top logs where relatively light weight material is frequently encountered.

AVERAGE WEIGHTS OF VARIOUS SPECIES OF WOOD

Species and Locality	Weights			Species and Locality	Weights		
	Kiln-dry (1)	Air-dry (2)	Green (3)		Kiln-dry (1)	Air-dry (2)	Green (3)
HARDWOODS				HARDWOODS (Cont.)			
	Pounds per cubic foot				Pounds per cubic foot		
Alder, red	27	28	46	Willits, Cal.	48	44	46
Ash, Baltimore	38	39	45	Winn Parish, La.	48	46	59
" black	34	36	53	Stone Co., Ark.	46	47	61
" blue	34	35	52	Tendricks Co., Ind.	46	48	67
" green	39	41	46	Richland Par., La.			
" Oregon	36	37	46	Winn Parish, La.	46	47	48
" pumpkin	41	42	47	Stone Co., Ark.	44	46	57
" white				Marathon Co., Wis.	40	42	48
				Morgan Co., Ind.	54	54	62
Aspen	44	48	51	Osage orange	48	47	61
Balsam poplar	39	38	46	Parson (Hickory)	51	53	48
Basswood	36	37	47	Rhododendron, great	36	40	58
	35	36	45	Sassafras	31	32	44
	26	27	41	Servitorberry	58	54	62
Beech	44	45	51	Silverbell tree	31	32	44
Birch, paper	34	35	41	Sourwood	36	36	48
" sweet	37	38	46	Sugarberry	52	54	61
" yellow	35	36	45	Sugarcane, staghorn	54	54	61
Buckeye, yellow	34	35	49	Sycamore	48	47	61
Bur oak	35	36	50	Talia tree	37	37	58
Butterbean	25	26	39	Poplar	30	31	47
				Umbrella, Fraser	27	27	38
				Walnut, black			
Cherry, black	27	28	47	Willow, western black	30	31	51
" wild red	24	24	46	" black	25	26	51
Chestnut	29	30	53	Witch hazel	26	27	47
	29	30	56		45	46	59
Chinquapin, western	31	32	51	CONIFERS			
Cottonwood	28	29	49	Cedar, incense	25	24	49
Cucumber tree	23	24	46	Need, Cal.	30	31	39
Dogwood (flowering)	33	34	50	Douglas Co., Oregon			
" (leaves)	32	33	49	Missoula Co., Mont.	21	22	24
Elm, white	43	44	55	Snohomish Co., Wash.	23	24	30
" slippery	43	44	53	Shawano Co., Wis.	20	21	28
" "	42	43	53	St. John the Baptist Parish, La.	23	24	31
" "	36	37	56				
" white	35	36	45	Lane Co., Oregon	28	29	38
Greenheart	38	39	48	Flume Co., Cal.	30	31	40
Gum, black	35	36	45	Humboldt Co., Cal.	21	22	28
" blue	52	54	70	Johnson Co., Wyo.	35	36	39
" red	38	39	47	Lane Co., Oregon	31	32	36
Hackberry	35	36	51	Chesalis Co., Wash.	38	37	41
" "	47	49	63	Lewis Co., Wash.	28	29	35
" "	47	49	62	Washington and Oregon	29	29	38
" "	47	49	62	Missoula Co., Mont.	28	28	32
" "	47	49	62	Dee, Oregon	28	27	32
" "	55	55	65	Snohomish Co., Wash.	25	25	36
" "	48	48	61	Grand Co., Colo.	22	22	28
" "	48	48	62	Missoula Co., Mont.	28	27	32
" "	48	48	62	Douglas Co., Oregon	26	27	32
" "	48	48	62				
" "	48	48	62	Malheur Co., Ore.	27	28	31
" "	48	48	62	Madera Co., Cal.	26	26	36
" "	48	48	62	Sevier Co., Tenn.	24	25	49
" "	48	48	62	Marathon Co., Wis.	30	28	48
" "	48	48	62	Missoula Co., Mont.			
" "	48	48	62	Chesalis Co., Wash.	28	29	41
" "	48	48	62	Quay's Harbor & Buckley, Wash.	30	31	40
" "	48	48	62	Missoula Co., Mont.	27	29	31
" "	48	48	62	Stevens Co., Wash.	35	34	42
" "	48	48	62	Hassan Co., Fla.	48	48	58
" "	48	48	62	Barren Co., Wis.	29	30	50
" "	48	48	62	Flume Co., Cal.	27	29	47
" "	48	48	62	Hassan Co., Fla.	27	29	54
" "	48	48	62	Grand Co., Colo.	27	28	38
" "	48	48	62	Gallatin Co., Mont.	27	29	47
" "	48	48	62				
" "	48	48	62	Granite Co., Mont.	29	30	41
" "	48	48	62	Jefferson Co., Mont.	28	29	39
" "	48	48	62	Johnson Co., Wyo.	27	28	37
" "	48	48	62	Hassan Co., Fla.	48	44	51
" "	48	48	62	Boylus, La.	41	42	54
" "	48	48	62	Lake Charles, La.	48	48	48
" "	48	48	62	Tangipahoa Parish, La.	39	41	54
" "	48	48	62	Hattiesburg, Miss.	36	36	48
" "	48	48	62	Sevier Co., Tenn.	38	38	54
" "	48	48	62	Hassan Co., Fla.	38	40	49
" "	48	48	62				
" "	48	48	62	Shawano Co., Wis.	38	34	42
" "	48	48	62	Malvern, Ark.	35	36	45
" "	48	48	62	Boylus, La.	38	37	50
" "	48	48	62	Madera Co., Cal.	26	27	50
" "	48	48	62	Sevier Co., Tenn.	26	27	54
" "	48	48	62				
" "	48	48	62	Missoula Co., Mont.	27	28	39
" "	48	48	62	Cocoonine Co., Arizona	28	29	44
" "	48	48	62	Madera Co., Cal.	28	29	48
" "	48	48	62	Douglas Co., Colo.	28	29	48
" "	48	48	62	Stevens Co., Wash.	28	28	36
" "	48	48	62				
" "	48	48	62	Missoula Co., Mont.	27	28	31
" "	48	48	62	Shawano Co., Wis.	23	24	39
" "	48	48	62	Humboldt Co., Cal.	23	24	38
" "	48	48	62	Hondoque Co., Cal.	28	27	38
" "	48	48	62	Hondoque Co., Colo.	28	28	48
" "	48	48	62				
" "	48	48	62	Grand Co., Colo.	24	25	30
" "	48	48	62	Oso Co., U. S.	27	28	38
" "	48	48	62	Sevier Co., Tenn.	27	28	38
" "	48	48	62	Chesalis Co., Wash.	25	26	38
" "	48	48	62	Oso Co., N. H.	25	26	38
" "	48	48	62				
" "	48	48	62	Rusk Co., Wis.	29	30	38
" "	48	48	62	Shawano Co., Wis.	27	28	47
" "	48	48	62	Snohomish Co., Wash.	45	46	54

Notes--(1) About 8 per cent moisture.
 (2) About 12 or 13 per cent moisture - Average condition reached without artificial heating by material sheltered from precipitation - North Central States.
 (3) Average green material.

Any individual lot of lumber in the condition specified in the column headings would probably vary 5 per cent from the figures given with a possible variation of as much as 20 per cent. For example, young, thirty pines will have a high moisture content when freshly cut and will probably weigh 20 per cent above the average given.