

DISCOVERING VALUE IN YOUR FOREST: **OPTIMIZING TIMBER VALUES**

Rick Helman
NNRG Staff Forester

Are there logs in your future?

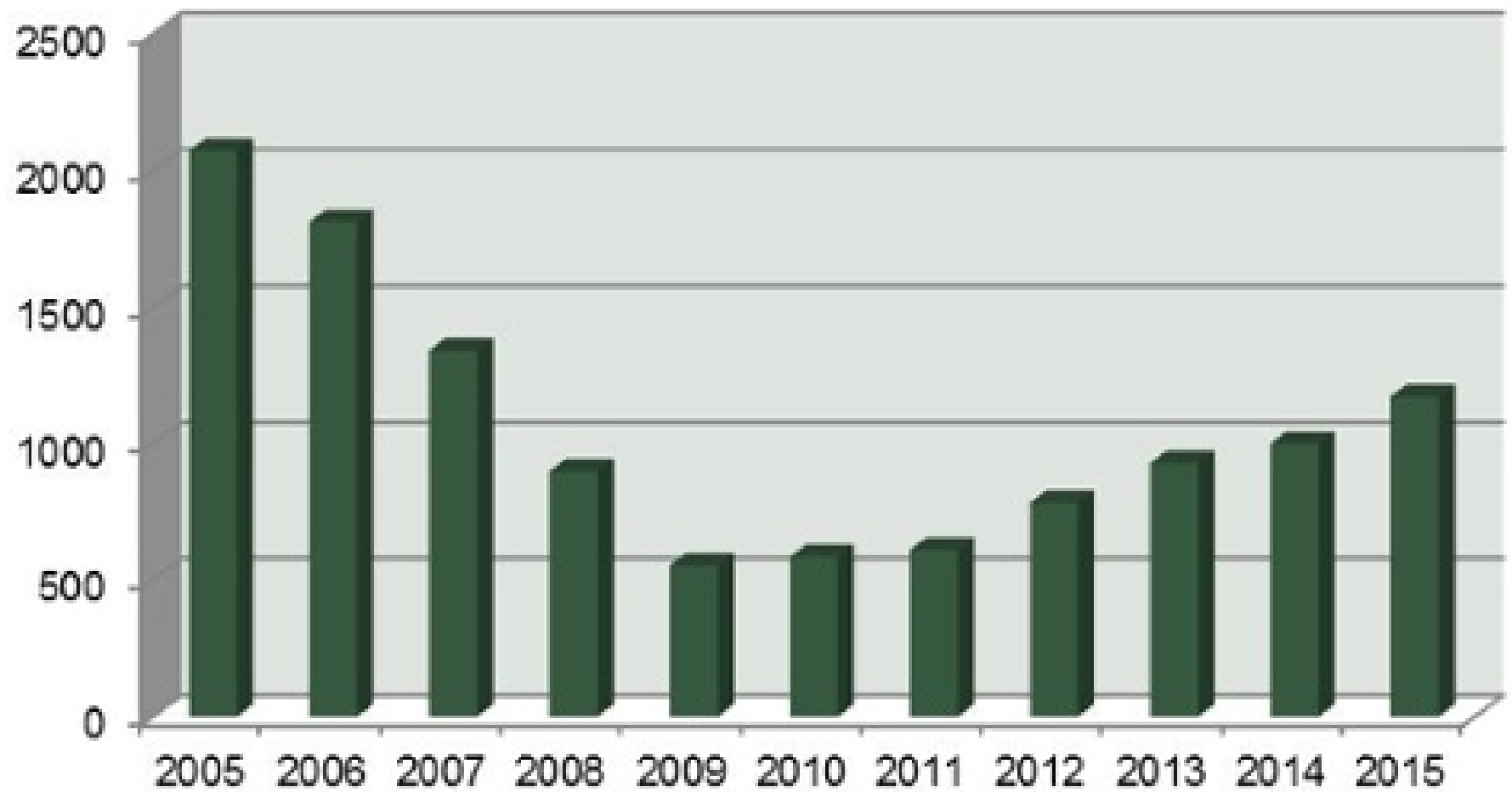


HISTORIC TIMBER MARKET TRENDS

What are the influencing factors?

- Housing Starts
- Canadian Lumber
- Asian demand
- Weather

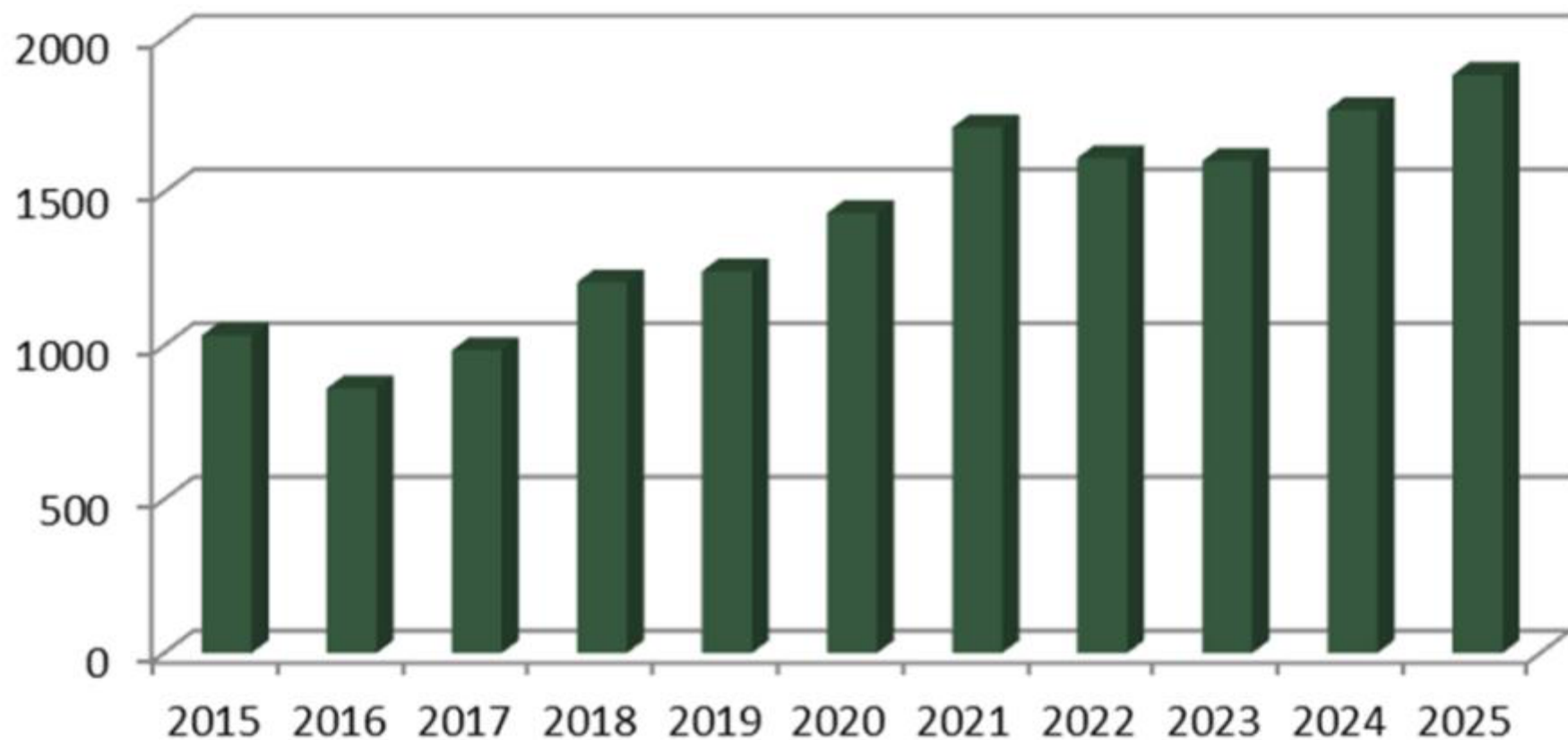
Housing Starts (thousands)





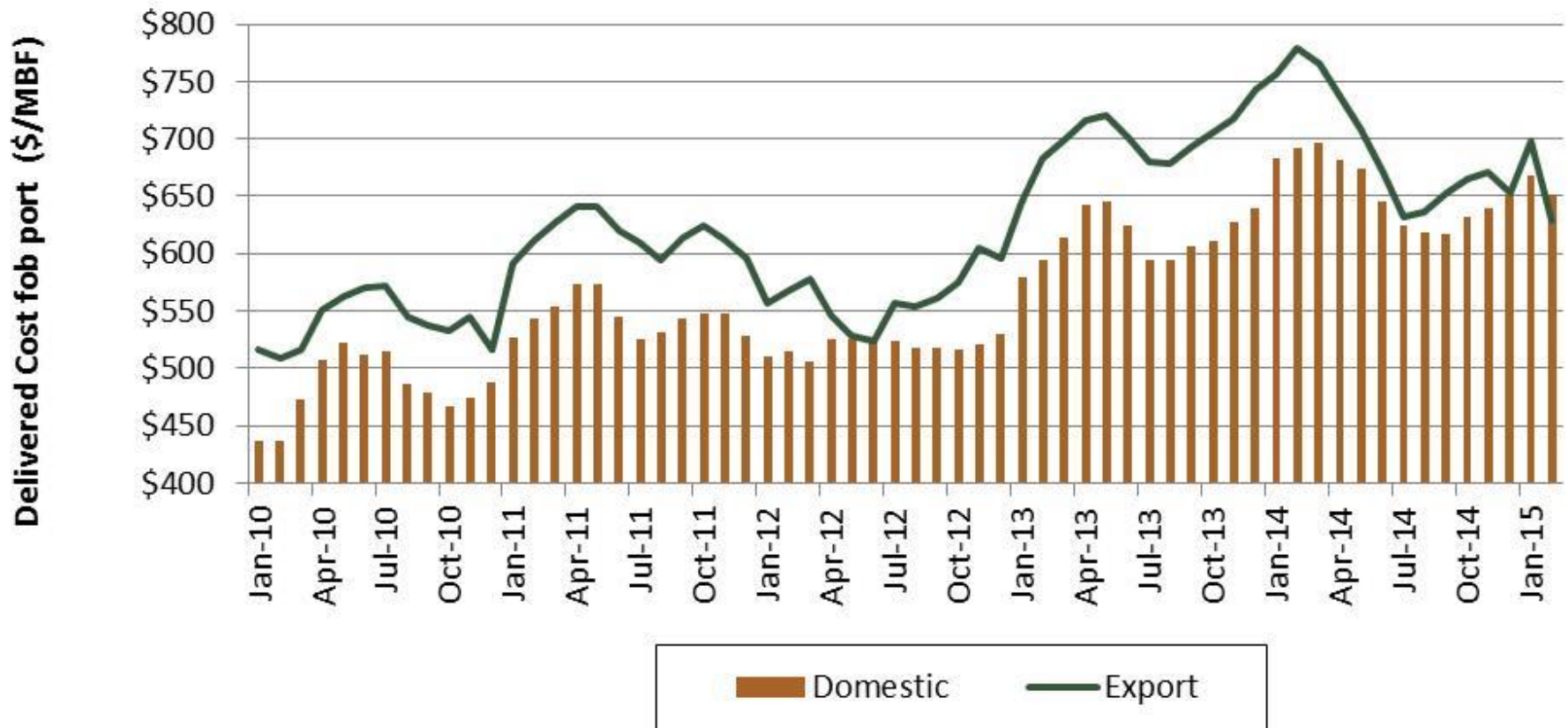
Forest2Market

Housing Start Forecast (000s)



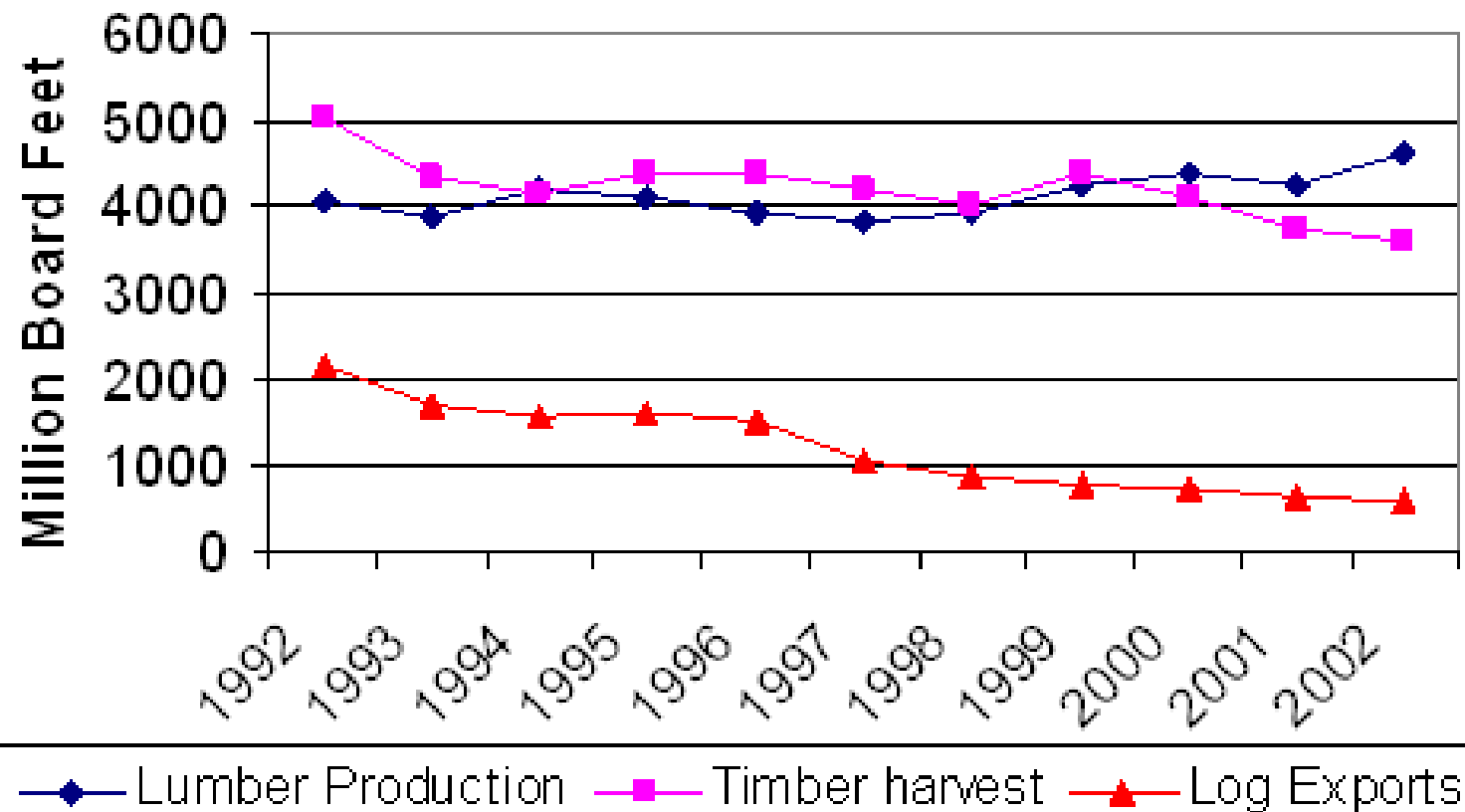
HISTORIC PRICE TRENDS

Export vs Domestic



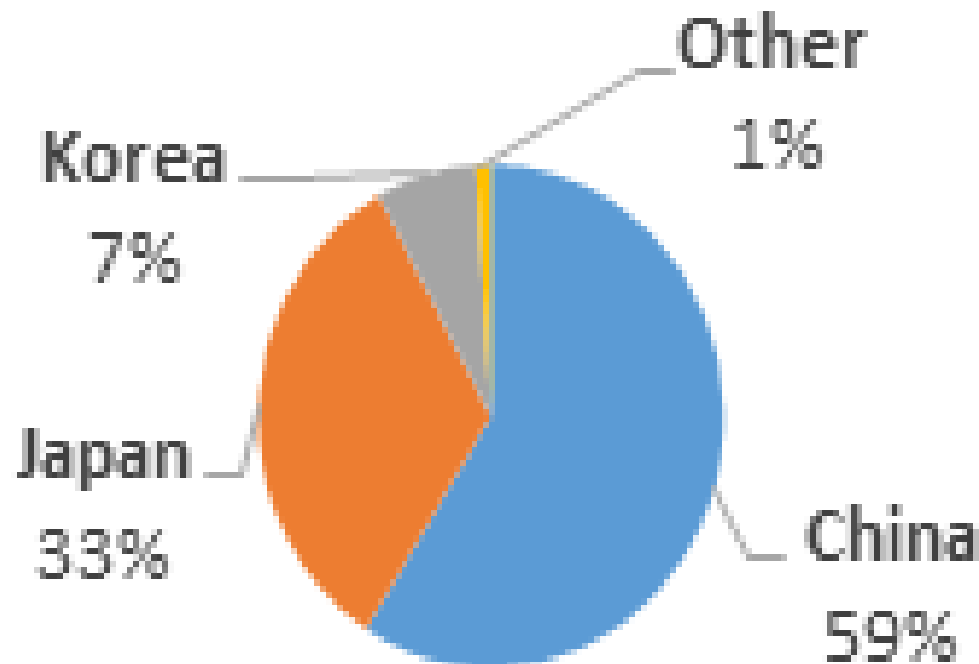
HISTORIC VOLUME TRENDS

**Washington Lumber Production,
Timber Harvests, and Log Exports
1992-2002**

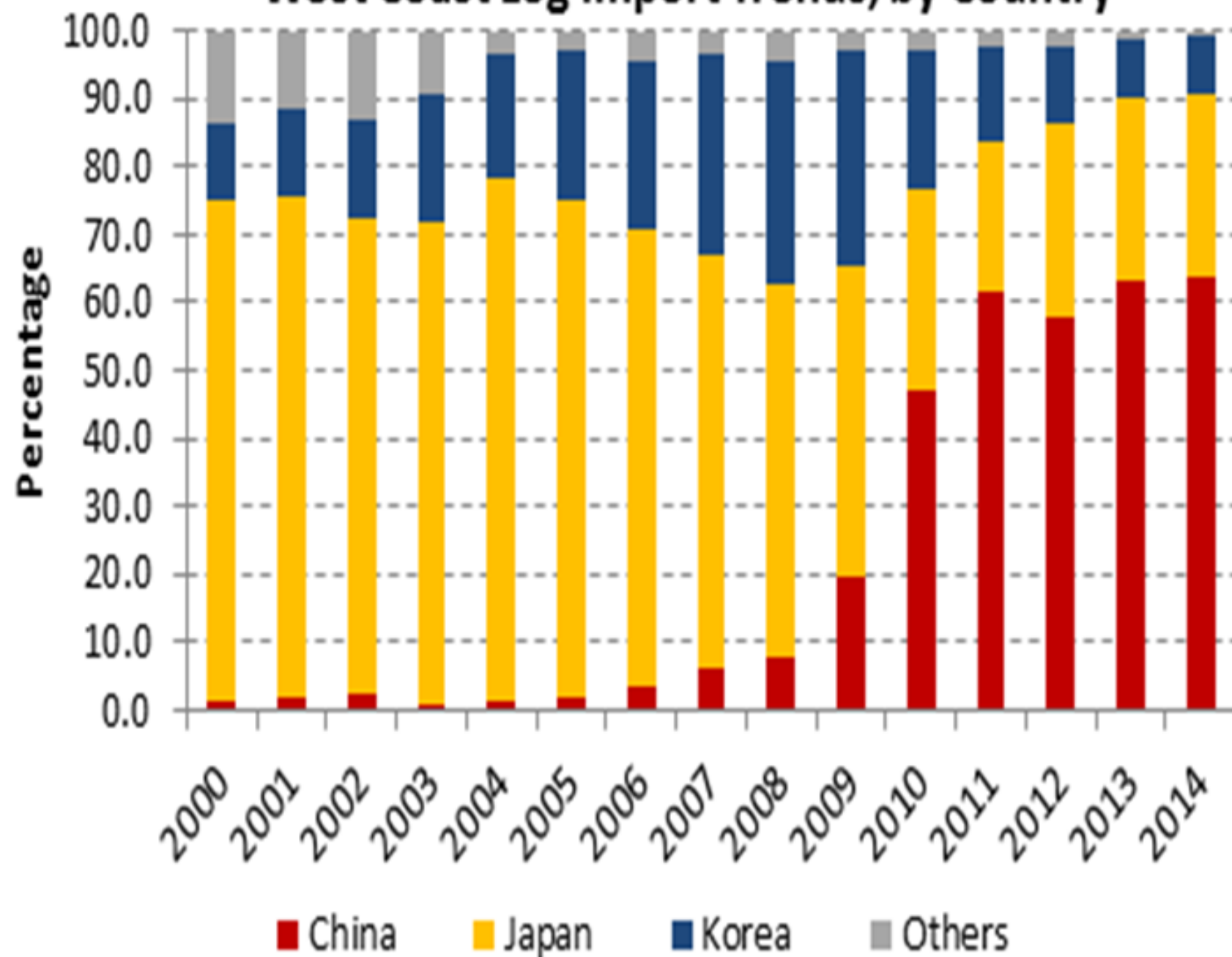


WHERE DO THE EXPORT LOGS GO?

Destination of West Coast Log Exports in 2015



West Coast Log Import Trends, by Country



WHY DOES CHINA PREFER LOGS?



Why does China prefer logs?

- Improvements in their manufacturing processes: they can capture more value.
- Import tariffs are lower on logs.
- Labor costs in China are low.
- Great demand for the byproducts: wood chips, shavings, and sawdust.
- Social policy: need to capture as much employment as possible throughout the entire wood products chain.

MARKET OUTLOOK & INDUSTRY DEVELOPMENTS

- Global log markets forecasted to improve but at a slow pace through 2017.
- Decreasing harvest levels in Canada. No net increase after 2018.
- Predicted supply imbalance by 2018-2019.
- Mill closures and consolidations.
- Softwood Lumber Agreement expiration.
- India?

SOURCES FOR CURRENT LOG MARKET INFORMATION

- Washington DNR survey prices for delivered logs.
- Subscription services: Log Lines and Washington/Oregon Log Market Report.
- Northwest Forestry Services (WA/OR Prices)
nwforestryervices.com



'CONGRATULATIONS ON YOUR INHERITANCE. YOUR TAX LIABILITY IS 40%—
WOULD YOU PREFER TO KEEP THE TOP OR BOTTOM 60% OF EACH TREE?'

IT SAYS THIS ONE GIANT REDWOOD
WOULD BE ABLE TO PRODUCE ENOUGH
LUMBER TO BUILD 25 SINGLE-FAMILY
FORECLOSURES...



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.com

Search ID: wml110124

LOG SORTS 101



LOG SORTS 101

- LOG VOLUME (SCALE), LOG GRADE, LOG SORT
- LOG VOLUME: Derived from measuring the length and diameter of the scaling cylinder. Expressed in board feet using Scribner log scale. Deductions in diameter and/or length then determine the net volume in your log. You are paid on net volume.

REVISED*

SCRIBNER

LOG VOLUME TABLES

COVERING

Lengths: 1 foot to 40 Feet
Diameters: 1 inch to 120 Inches
AND

Length: 41 Feet to 80 Feet
Diameters: 1 Inch

INCLUDING
Factors For Computing Volumes
AND

Instructions For Segmenting
Logs Over 40 Feet in Length
AUTHORIZED BY

Columbia River Log Scaling & Grading Bureau
Grays Harbor Log Scaling & Grading Bureau

Puget Sound Log scaling & Grading Bureau

Northern California Log Scaling & Grading Bureau

Southern Oregon Log Scaling & Grading Bureau

Willapa Harbor Log Scaling & Grading Bureau

Yamhill Log Scaling & Grading Bureau

*Revised July 1, 1972

SCRIBNER LOG VOLUME TABLE

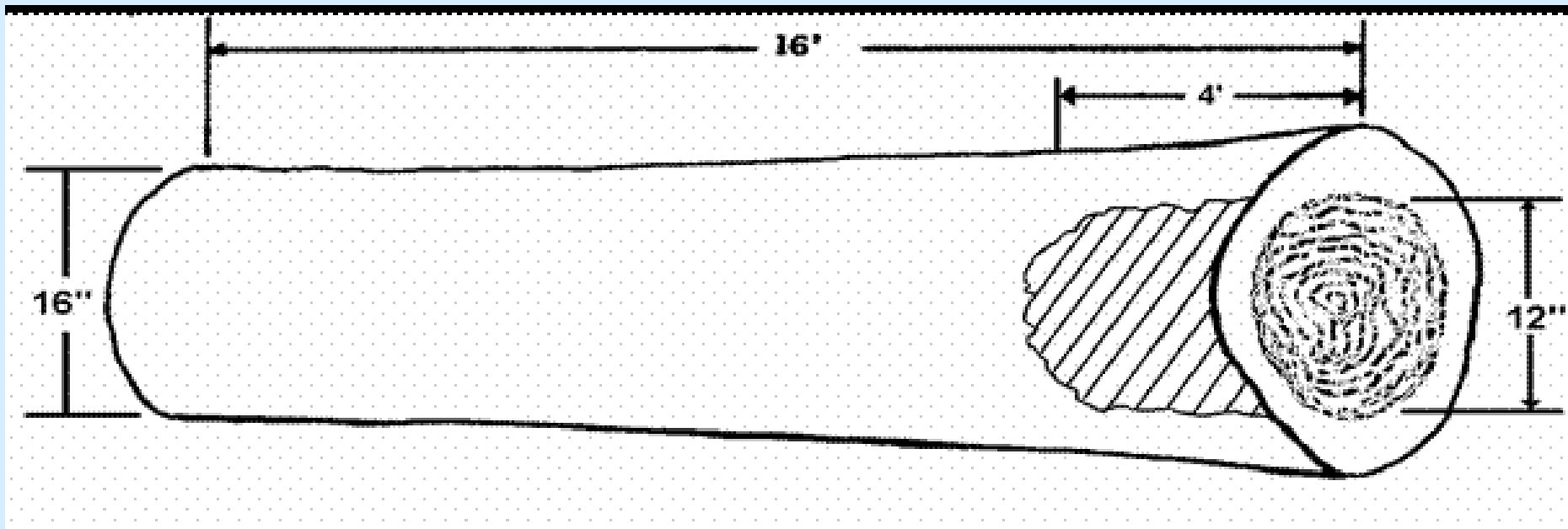
Length of log in feet

Diameter
of log in
inches at
small end

	8	10	12	14	16
12	40	50	60	70	80
13	50	60	70	80	100
14	60	70	90	100	110
15	70	90	110	120	140
16	80	100	120	140	160
17	90	120	140	160	180
18	110	130	160	190	210
19	120	150	180	210	240
20	140	170	210	240	280
21	150	190	230	270	300
22	170	210	250	290	330
23	190	240	280	330	380
24	200	250	300	350	400

BOARD
FEET

MEASURING LOG FOR GROSS AND NET SCALE





from Darrington Wm.
- Righty - Copy -

LOG GRADE

- BASED ON THE GRADING RULES OF THE SCALING BUREAU. Determined by size and quality characteristics.

Table 5. Log grades.^a

Species and grade	Minimum gross length (ft)	Minimum gross diameter (in)	Required standards for quality, log surface, and minimum merchantable volume
<i>Special mill</i> (all species except western redcedar)	17	16	Logs will produce high-quality dimension lumber or C- and D-grade veneer. Sound, tight knots and knot indicators no greater than 1.5 inches allowed, but not more than one/ft of log length. Minimum annual ring count is six/inch. ^{b,c,d,e}
<i>Douglas-fir</i> No. 1 peeler ^{c,g}	17	30	Logs produce A- and B-grade veneer and high-grade lumber. Log surface at least 90% free of knots and defects. Minimum annual ring count is eight/inch. No more than two knots allowed.
No. 2 peeler	17	30	Logs produce A- and B-grade veneer and high-grade lumber. Surface must be at least 75% clear of knots. Minimum annual ring count is eight/inch. No more than two knots allowed.
No. 3 peeler	17	24	Logs produce A- and B-grade veneer and high-grade lumber. Limited to knot indicators with diameters no greater than 1.5 inches. No more than one knot indicator/ft of log length. Minimum annual ring count is six/inch. No more than two knots allowed.
No. 1 sawmill ^h	16	30	Logs will produce B-grade and better lumber. Log surface should be 90% clear. Minimum annual ring count is eight/inch.
No. 2 sawmill	12	12	Logs produce dimension lumber or C- and D-grade veneer. Sound and tight knots, diameters no greater than 2.5 inches. Minimum volume is 60 bd ft net scale.
No. 3 sawmill	12	6	Logs produce dimension lumber or C- and D-grade veneer. Sound and tight knots, diameters no larger than 3 inches. Minimum volume is 50 bd ft net scale.
No. 4 sawmill	12	5	Logs do not meet No. 3 sawmill requirements (diameter or net volume) but produce at least 33.33% of gross volume in merchantable lumber. Minimum volume is 10 bd ft net scale.
<i>Hemlock/fir</i> Peeler logs	17	24	Logs produce high-grade veneer or B-grade and better lumber. No more than two knots allowed.
No. 1 sawmill	16	24	Logs produce B-grade and better lumber. At least three quadrants free of knots or knot indicators.
No. 2 sawmill	12	12	Logs produce construction or better lumber. Sound, tight knots; diameters no greater than 2.5 inches. Minimum volume is 60 bd ft net scale.
No. 3 sawmill	12	6	Defects prevent No. 2 grade, but logs suitable for standard or better lumber. Sound, tight knots; diameter no greater than 3 inches. Minimum volume is 50 bd ft net scale.
No. 4 sawmill	12	5	Logs do not meet No. 3 log requirements but produce at least 33.33% of gross volume in merchantable lumber. Minimum volume is 10 bd ft net scale.

^a This table does not list all grade requirements or all species. It is not intended to substitute for official log scaling and grading rules, which the log scaling and grading bureaus publish and the timber industry accepts as standard.

^b C- and D-grade veneer are inferior to A- and B-grade veneer.

^c Dimension lumber is yard lumber that measures 2 inches or more but is less than 5 inches thick—such as two-by-fours.

^d Knot indicators are scars on the bark surface indicating a grown-over limb.

^e Sound and tight knots contain no decay and are firmly fixed in the log.

^f A No. 1 log is superior in quality to No. 2; No. 2 is superior to No. 3; No. 3 is superior to No. 4; etc.

^g Peeler logs are usually “peeled” with a wood lathe to produce the veneer used to make plywood.

^h Sawmill grade logs usually are milled to manufacture lumber.

CHARACTERISTICS OF HIGH QUALITY TIMBER

- KNOTS: SMALL AND WELL SCATTERED IF PRESENT.
- RING COUNT: 6 TO 8 RINGS PER INCH AVERAGE IN THE OUTER INCH OR OUTER $\frac{1}{3}$ OF LOG.
- CENTERED HEART.
- SMOOTH AND STRAIGHT

LOG SORTING

- AT THE WOODS LANDING: SORTED BY LOG DESTINATION
- AT THE BUYER'S LOG YARD: SORTED BY BUYER'S LOG SORTS BASED ON QUALITY.

COMMON DOMESTIC AND EXPORT LOG SORTS

- DOMESTIC: UTILITY POLES, VENEER, VARIOUS TYPES OF SAWLOGS, CHIP AND SAW, PULP
- EXPORT: JAPAN, CHINA, KOREA, TEMPLE POLES,



MANKE LUMBER COMPANY, INC.

1717 Marine View Drive
Tacoma, Washington 98422
Tacoma (253) 572-6252
Tacoma (253) 383-2489 Fax
Seattle (206) 624-2090

826 Fairmount Ave.
Shelton, Washington 98584
Shelton (360) 426-5536
Shelton (360) 426-2782 Fax

AUG 11 2016

LOG PRICE LIST EFFECTIVE AUGUST 15, 2016 LOGS DELIVERED TO TACOMA LOG YARD

DOUGLAS FIR:

24" & UP, SM & BTR, NO DEFECT-ROT, PITCH ETC. CALL FOR LENGTHS	\$750M/\$125 PER TON
36' & LONGER, 12" TOPS & LARGER, #2 TYPE SAW & BTR, 6 TON MBF.	\$475M/\$79 PER TON
32' & 34', 12" TOPS & LARGER, #2 TYPE SAW & BTR, 6 TON PER MBF.	\$450M/\$75 PER TON
26' ONLY, 12" TOPS & LARGER, #2 TYPE SAW & BTR, 5.7 TON PER MBF.	\$425M/\$75 PER TON
16' TO 24', 12" TOPS AND LARGER, #2 TYPE SAW & BTR, 5.7 TON PER MBF.	\$400M/\$70 PER TON
36' & LONGER, 12" TOPS & LARGER, #3 TYPE SAW, 6 TON PER MBF.	\$200M/\$33 PER TON
ALL OTHER 12" & UP, #3 PAID BY TON MINUS DEDUCTIONS IF NECESSARY	\$200M/\$34 PER TON
32' & LONGER, 8" - 11" TOPS, #2 TYPE SAW & BTR, 7 TON MBF.	\$600M/\$86 PER TON
32' & LONGER, 6" & UP CNS (32' REQUIRED LENGTH AVERAGE).	\$75 PER TON
16' & 24' & LONGER, 5" & UP (NO 18', 20', 22' & NO PULP)	\$70 PER TON
CUT TO LENGTH FIR (12, 16 & 20, IF STRAIGHT) **	\$65 PER TON

HEMLOCK AND WHITE FIR:

32' & LONGER, 12" TOPS & LARGER, #2 TYPE SAW & BTR, 6.5 TON PER MBF.	\$350M/\$54 PER TON
20' TO 30', 12" TOPS & LARGER, #2 TYPE SAW & BTR, 6.3 TON PER MBF.	\$250M/\$40 PER TON
5" AND UP, 12' & LONGER.	\$30 PER TON

PINE AND SPRUCE:

ALL DIAMETERS AND LENGTHS, 5" MINIMUM TOP.	\$25 PER TON
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CEDAR:

ALL DIAMETERS AND LENGTHS 5" MINIMUM TOP	\$70 PER TON
WORMY CEDAR WILL BE CULLED. ALL LOGS CONTAINING METAL WILL BE CULLED.	

PAY SCHEDULE: ONE WEEK AFTER DELIVERY, WEEK ENDING FRIDAY

REQUIRED LOG LENGTHS: 24' & longer must have 11" trim; 20' & shorter must have 6" trim.

BUTT SIZES: NO MINIMUM OR MAXIMUM BUTT SIZE

HEMLOCK & WHITE FIR LOGS CONTAINING FREEZEBREAK WILL BE CULLED IF DETERMINED BY SCALER TO BE PULP.

ALL LOGS ARE ASSUMED TO BE BUCKED PROPERLY AND REASONABLY FREE OF DEFECT. IF NOT, IT MAY BE NECESSARY TO MAKE DEDUCTIONS. LOGS 26' AND SHORTER THAT MUST BE CUT IN TWO BEFORE PROCESSING WILL BE PAID AT LOWER PRICES. LOGS NOT SUITABLE FOR THE MANUFACTURE OF MARKETABLE LUMBER WILL BE REJECTED. BUTTS MUST BE WITHIN 1" OF SQUARE. NO BUTT SHOT. NO PISTOL BUTTS. UNDERCUTS MUST BE REMOVED FROM STUMP PORTION OF TREE. LOGS CONTAINING METAL WILL BE CULLED. IN ORDER TO MAKE PRICE SEPARATIONS ON MIXED SPECIES AND MIXED DIAMETERS IN GIVEN LOADS, THE SELLER HAS THE OPTION OF MUTUAL AGREEMENT ON AN ESTIMATE OR PIECE SCALING, OR A COMBINATION OF AN ESTIMATE AND PIECE SCALING. ON PARTIALLY SCALED LOAD, FOR REASON OF PRICE SEPARATION, SCALED FOOTAGE WILL BE CONVERTED TO WEIGHT BY THE ABOVE FIELD-TESTED GENERALLY ACCURATE RATIOS. THE SELLER HAS THE OPTION OF USING PACIFIC RIM SCALING BUREAU. PRICES APPLY TO FRESH CUT TIMBER, AND SUBJECT TO CHANGE WITHOUT NOTICE.

HIGHER QUALITY LOGS CAN BE DELIVERED TO SUMNER. PRIOR APPROVAL IS NEEDED.

The vendor agrees that by completing the load slip the logs delivered do not originate from a controversial source as defined in PEFC ST 2002:2013. As Manke Lumber Company maintains a Chain of Custody all vendors are required to sign a self-declaration identifying the origin of the logs sold to Manke Lumber Company.

LOG BUYER:

GARY ORR
(360) 490-1081 Cell

TACOMA SCALES:

(253) 572-9029
MONDAY - FRIDAY 7AM-5 PM

SELF LOADER:

CHRIS COLEMAN
(360) 470-6124 Cell
DISPATCH 6 PM-8 PM
SUN-THURS: 360-427-8904

Note: Preferred Minimum Trim = 12"

Price List

EFFECTIVE September 1, 2016

Price are Subject to Change at any Time Without Prior Notice.

Port of Olympia

CALL BEFORE DELIVERING LOGS

	<u>Sort</u>	<u>Price/ Net MBF</u>	<u>Diameter</u>	<u>Length</u>
Douglas Fir	5 GC-China	\$575.00	12" - + Butt under 33"	26' - 40'
Douglas Fir	9 SLC-Japan	\$705.00	9" - 11"	26' - 40'
Douglas Fir	6 House Log	\$715.00	11" Only	36' - 40'
Douglas Fir	23 House Log	\$765.00	12" - 13"	36' - 40'
Douglas Fir	13 Dom-Quad	\$410.00	8" - 11"	16' - 40'
Douglas Fir	15 Hi-Domestic	\$575.00	12" - + Butt under 33"	26' - 40'
Douglas Fir	16 CNS	\$400.00	5" - 7"	16' - 40'
Douglas Fir	19 XQ-China	\$575.00	8" - 11"	26' - 40'
Douglas Fir	20 Reman	\$570.00	8" - +"	26' - 50'
Douglas Fir	24 Lo-Domestic	\$400.00	12" - +"	16' - 40'
Douglas Fir	2 SS-Japan	\$765.00	12" - +"	30' - 40'
Douglas Fir	25/26/36 IS-Japan	\$745.00	12" - 19' Butt under 33"	26' - 40'
Douglas Fir	25/26/36 IS-Japan	\$695.00	20" + Butt under 33"	26' - 40'
Douglas Fir	27 SS-O	\$670.00	25" + Butt >= 33"	26' - 40'
Douglas Fir	35 IS-O	Not marking	25" + Butt >= 33"	26' - 28'
Douglas Fir	35 IS-O	Not marking	25" + Butt >= 33"	29' - 40'
Douglas Fir	4 GCO	\$410.00	12" - + Butt >= 33"	26' - 40'
Douglas Fir	56 Temple	\$950.00	32" - +"	36' - 40'
Douglas Fir	57 GC Temple	\$850.00	32" - +"	36' - 40'
Douglas Fir	43 OS China	\$410.00	24" - +"	26' - 40'

Note: D.Fir sorts SLC (6/9) & IS (23/25/26/36) should each maintain a minimum 36' length average.
All other export sorts should each maintain a minimum 35' length average.

Hemlock	25 IS	\$615.00	12" - +	36' Only
Hemlock	6 SC	\$615.00	10" - 11"	36' Only
Hemlock	5/19 GC/XQ	\$580.00	10" - +	36' Only
Whitewood Mix	15/3 HR/SLchina	\$580.00	8" - +	26' - 40'
Whitewood Mix	43 OS China	\$410.00	24" - +"	26' - 40'
Whitewood Mix	13 Dom Quad	\$300.00	8" - 11"	16' - 40'
Whitewood Mix	16 CNS	\$300.00	5" - 7"	16' - 40'
Whitewood Mix	20 Reman	\$300.00	8" - +	26' - 50'
Whitewood Mix	24 Domestic	\$300.00	12" - +	16' - 40'

Note--On each load ticket record: 1) Date, 2) The agreement #, 3) Timber owner's name.

If you have any pricing or delivery questions please call Dan Moore at 360-481-2226.

For payment set-up or payment questions please call Karen Feeney at 360-596-4239.

D.fir: Preferred Lengths--Japan: 40', 36', & 26' , Acceptable Lengths: 39', 34', 33' & 30'.

Hemlock Preferred Lengths-- Korea--36' only.

Hours of Operation: Monday-Friday 6:30 am to 4:00 pm.

2016 Holidays & Scheduled Shutdowns:

Trim Requirements: Logs should be well manufactured. All lengths should include a minimum 12" trim. Ends should be flush (no hinges, cut straight and square), limbs should be bucked flush with the log.

Unacceptable Material: Pine, Spruce, cedar, larch, hardwood, pulp logs or logs with metal are not paid for or returned. Logs 41' 9" and longer, and logs with cracks, hooked, or excessively flared butts are paid at "Sort 20" price.

Other Specifications: All logs must be from PRIVATE lands, and free from export restrictions and any liens or encumbrances.

GRADE VERSUS SORT

- GRADE: THE SCALING AND GRADING BUREAU CONTROLS THE SPECIFICATIONS AND APPLICATION FOR THE GRADES THAT SCALERS USE WHILE GRADING EACH LOG.
- SORT: SORT SPECIFICATIONS AND APPLICATION ARE CONTROLLED BY THE INDIVIDUAL LOG BUYING COMPANY. SORTS ARE PROPRIETARY AND VARY WIDELY FROM COMPANY TO COMPANY.

“Roll-out” Scale VS. Truck Scale





ATLANTIC FEATURE © 1998 MARK PARISI

offthemark.com

Mark
Parisi

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EVALUATING TIMBER QUALITY



In spite of heroic efforts to practice "good forestry," sometimes things just don't go according to plan.

SILVICULTURAL STRATEGIES FOR GROWING HIGHER QUALITY TIMBER



- DEFINE YOUR GOALS – ARE THEY COMPATIBLE WITH PRODUCING HIGHER QUALITY TIMBER? SOMETIMES “MESSIER” IS BETTER FOR WILDLIFE HABITAT.
- WHAT TREE SPECIES ARE YOUR SOILS BEST SUITED FOR?
- ASSESS CURRENT STAND CONDITIONS: OVERCROWDING, BOLE CHARACTERISTICS, BRANCHING HABIT.
- CONSIDER NICHE TIMBER PRODUCTS: FIGURED MAPLE, ALDER VENEER, TEMPLE POLES.

- Long term planning for poles, cedar, specialty products such as oversize and/or tight grain.
- Managing for mixed species diversity = economic and ecological resilience.
- Knowing when to thin so as not to lose value to neglect.

LOGGING AND MARKETING



VALUE CAN BE ADDED THROUGH GOOD LOG MANUFACTURING





Pacific Rim Long Scaling Bureau
 2288 24th Court NE
 Suite 0
 Issaquah, WA 98516
 360-526-8710

VERSION: 16.5.3
 DATE/TIME SCALED: 9/12/16 11:21 AM

LD REPT: 17600
 YD REPT:
 AGENCY:
 BRIDLE:
 PD #:
 MONT TKIN:
 GROSS: 24800
 TARE: 28500
 NET: 56300

BRAND: 64051
 BRAND D: P-53
 TAPER: 1
 CUDIC: N
 SOL TYPE: W
 SETTING:
 AGENCY CLG: N
 IDENTITY:

PAGE: 1
 SCALER: 85

TICKET: 0002477023-00
 SCALE LOC: 0050 ABERDEEN SORT
 ACCT NAME: 847-
 2ND OWNER: PFS/
 2ND OWNER: PFS/
 DELIVER TO: WILLIS PU/
 TRUCKER: CARTER 910
 LOADER: CARTER
 MISC:

SIDE:
 EQUIP:
 LD SPC:
 MIX:
 SCL:
 USFS: N

LOG TAG W	SORT SORT			-OCD-					CUB UTIL			ADDR		SCRIMMER		UTIL		COMMENTS
	ONE	TWO	OC	D1	LEN	D2	D1	LN	SP	GR	D1	LN	GR	D1	LN	GRS	NET	
1				8	34				HEM	3						70	70	
2				10	34				HEM	3						130	130	
3				11	34			1	HEM	3						150	150	
4				16	34				HEM	2						340	340	C
5				15	34				HEM	2						300	300	
6				16	34				HEM	3						130	130	
7				14	34			1	HEM	2						240	240	
8				19	34				HEM	2						130	130	
9				21	34				HEM	2						150	150	C
10				15	34				HEM	2						300	300	
11			DF	9	34			1	HEM	2						100	70	
12				13	34				HEM	2						210	210	M
13				9	34			1	HEM	2						60	60	
14				9	34				HEM	2						60	60	
15				11	34				HEM	2						110	110	
16				11	34				HEM	2						110	110	
17				8	34				HEM	2						50	50	
18				8	34				HEM	2						50	50	
19				8	34				HEM	2						70	70	EW
20				9	34				HEM	2						100	100	12
21				9	34				HEM	2						100	100	
22				10	34				HEM	2						130	130	
23				10	34				HEM	2						130	130	
24				11	34				HEM	2						150	150	
25				11	34				HEM	2						150	150	
26				9	34				HEM	2						100	100	SLC
27				10	34				HEM	2						130	130	
28				8	34				HEM	2						50	50	
29				9	34				HEM	2						60	60	
30				9	34				HEM	2						100	100	
31				15	34				HEM	2						130	130	EW2
32				10	34			1	HEM	2						170	160	
33				8	34				HEM	2						70	70	
34				11	34				HEM	2						150	150	
35				9	34				HEM	2						100	100	

LOGS 35 GRS SCRIE 4500
 SFGS 35 NET SCRIB 4540
 AVG LEN 32.8 AVG GRS 131
 AVG DIA 10.3 AVG NET 130

GRS UTIL 0
 NET UTIL 0
 ADD BACK 0
 ZORFECT 0.9

GROSS 0.000
 NET 0.000
 MERCH 0



SO - HOW MUCH
TO REMOVE THIS
UGLY OLD TREE?

\$1,750.

IT'S NOT
THAT
UGLY.



Search ID: mban2845

Brain

ASK THE FORESTER





QUESTIONS?

RICK@NNRG.ORG