

# Western Red Cedar Grade Book

2015 Edition



# Western Red Cedar



**Morton, WA**



**Shelton, WA**



**Amanda Park, WA**



**Naples, ID**



# Alta Forest Products

Alta Forest Products is the premier manufacturer of Western Red Cedar fencing.

Operating four facilities located in Morton, WA, Shelton, WA, Amanda Park, WA and Naples, ID, Alta Forest Products employs over 400 individuals and has an annual production that exceeds 300,000,000 board feet of finished goods. Our mills produce over 140 different products ranging from 42 inches to 8 feet long and from 3 inches all the way to 7.5 inches wide, ensuring the best and most complete use of our natural resources.

We are dedicated to providing our customers with the best products available, through the most efficient manufacturing facilities and supply chain. Our team utilizes our unique synergies to effectively deliver the best renewable resource based building products in the most environmentally conscious manner.

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## STATEMENT OF VALUES

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### I. Integrity

We do what we say we are going to do. We ensure this by planning ahead and proactively communicating with our customers.

### II. Quality

Our goal is simple: to produce the highest quality fence board in the industry. Anything less is unacceptable.

### III. Accountability

Our success in living up to these values is defined not by us, but by our customers. We will constantly solicit critical feedback.

### IV. Partnership Based Selling

We prioritize long-term partnerships over all other forms of business. We believe reliable, long-term partnerships equal stability for both ours and our customer's businesses.

### V. Service

Our success is wholly dependent upon our partners' success. We aim to set the industry standard for responsiveness, communication and customer support.

### VI. Innovation

We are committed to looking at things in new and different ways – be it a quote, a product, or a partnership. The status quo is not acceptable. We are focused on being the industry's most efficient producer.





# Alta Forest Products

Western Red Cedar is the classic all-natural, all-American fencing choice. There are many fencing options, but no other product combines the beauty, stability, and longevity of Western Red Cedar.

## Western Red Cedar's attributes include:

**Durability** – Natural tannins provide insect, rot, and decay resistance without the addition of harmful man-made chemicals. A properly installed Western Red Cedar fence should last 20 years.

**Sustainability** – Western Red Cedar grows naturally in the sustainably managed forests of the Pacific Northwest.

**Beauty** – A distinctive wood grain, rich fiber tone, tight knot structure, and natural appearance lend a timeless beauty to Western Red Cedar fencing.

**Stability** – Minimal tendency to warp, shrink, swell, cup, or twist.

**Versatility** – Easily accepts stain or naturally grays for a timeless look (typically a 2-3 year process).

Good fences make good neighbors, and Western Red Cedar makes for the best fence available.





## Competition & Alternative Products

**Vinyl** – More expensive than cedar and whitewood products. Price and availability subject to a volatile petroleum market. Sold as a low maintenance fence option, but prone to mildew in wet climates. Unnatural appearance.

**3/4" S1S2E Cedar** – Comes mostly from Canada. More expensive than domestic 5/8" Western Red Cedar and less plentiful. Accumulated as a by-product from lumber mills, not produced from a dedicated fence mill.

**5/8" Western Red Cedar** – The nationally preferred wood fencing product. Sustainably harvested and rough sawn from the log in domestic fence mills. Superior durability, stability, and beauty.

**Import** – Not a cedar species, often from Asia. Subject to unreliable international transportation and logistics. Performance, appearance and shelf life are well below Western Red Cedar. Not sustainably harvested and long term supply is in question.

**Douglas Fir** – Similar in appearance to other whitewoods, but more resistant to decay and better structural stability. Often sold to a consumer wanting more longevity from their fence, but at a competitive price point.

**Incense** – Native fiber of California. Longevity is less than other fence products and is prone to mildew, insect damage, and shrinkage issues. Appearance is not as desired as Western Red Cedar. Usually marketed as a price point option.

**Stained Whitewood** – Pre-stained Northwest conifer. Less expensive than cedar, not as durable, but looks good with long lasting color. Competes with pressure treated and price point Western Red Cedar fence grades.

**Pressure Treated** – Made from whitewood, such as imported South American Pine and domestic Southern Yellow Pine. A chemically treated and inexpensive alternative to many other fencing products.

Product	Price Point	Durability	Aesthetic Value	Availability	Key Markets
Vinyl & Composites	Most Expensive	Excellent	Artificial	Varies with oil prices	Nationwide
Western Red Cedar (S1S2E)	Highest for Wood	Excellent	Rich depth of natural tones	Supply is often tight	Mid-West, Mountain states, Northwest, and East coast
5/8" Western Red Cedar	High	Excellent	Rich depth of natural tones	Can be tight during seasonal and cyclical peaks	Nationwide
Import	Medium	Poor	Lighter uniform tone	Poor	Coastal regions
Douglas Fir	Medium	Good	Lighter uniform tone	Readily available	Nationwide
Incense Cedar	Medium	Poor	Lighter uniform tone	Can be tight during seasonal and cyclical peaks	California, Texas, and Mid-West
Stained Whitewood	Low	Fair	Pre-stained in three colors	Plentiful	Texas, Mid-West, and Western US
Pressure Treated	Lowest	Fair	Poor	Plentiful	South and East

## Alta Forest Products Pack Sizes

Width of Board	3.5"	4"	5"	5.5"	6"	7.5"
Total # of Boards	756	648	540	486	432	324
Height of Unit [# of boards]	54	54	54	54	54	54
Width of Unit [# of boards]	14	12	10	9	8	6
Height of Unit	32"	32"	32"	32"	32"	32"
Width of Unit	49"	48"	50"	49.5"	48"	45"

## New Package Design



[www.altafp.com](http://www.altafp.com)

# Table of Contents

Western Red Cedar – 1 x 6 – 6’ Clear ..... 1-2

Western Red Cedar – 1 x 6 – 6’ #1-2Face ..... 3-4

Western Red Cedar – 1 x 6 – 6’ #2/Btr NH ..... 5-6

Western Red Cedar – 1 x 6 – 6’ #3/Btr NH ..... 7-8

Western Red Cedar – 1 x 6 – 6’ Rustic ..... 9-10

Western Red Cedar – 1 x 5.5 – 6’ Clear ..... 11-12

Western Red Cedar – 1 x 5.5 – 6’ #1-2Face ..... 13-14

Western Red Cedar – 1 x 5.5 – 6’ #2/Btr NH NPS ..... 15-16

Western Red Cedar – 1 x 5.5 – 6’ #3/Btr NH ..... 17-18

Western Red Cedar – 1 x 5.5 – 6’ Rustic ..... 19-20

Western Red Cedar – 1 x 5 – 6’ #2/Btr NH NPS ..... 21-22

Western Red Cedar – 1 x 5 – 6’ #3/Btr NH ..... 23-24

Western Red Cedar – 1 x 4 – 6’ Clear ..... 25-26

Western Red Cedar – 1 x 4 – 6’ #1-2Face ..... 27-28

Western Red Cedar – 1 x 4 – 6’ #2/Btr NH ..... 29-30

Western Red Cedar – 1 x 4 – 6’ #3/Btr NH ..... 31-32

Western Red Cedar – 1 x 4 – 6’ Rustic ..... 33-34

Western Red Cedar – 1 x 3.5 – 6’ #2/Btr NH NPS ..... 35-36

Western Red Cedar – 1 x 3.5 – 6’ #3/Btr NH ..... 37-38

Western Red Cedar – 1 x 3.5 – 6’ Rustic ..... 39-40

Glossary ..... 41-42



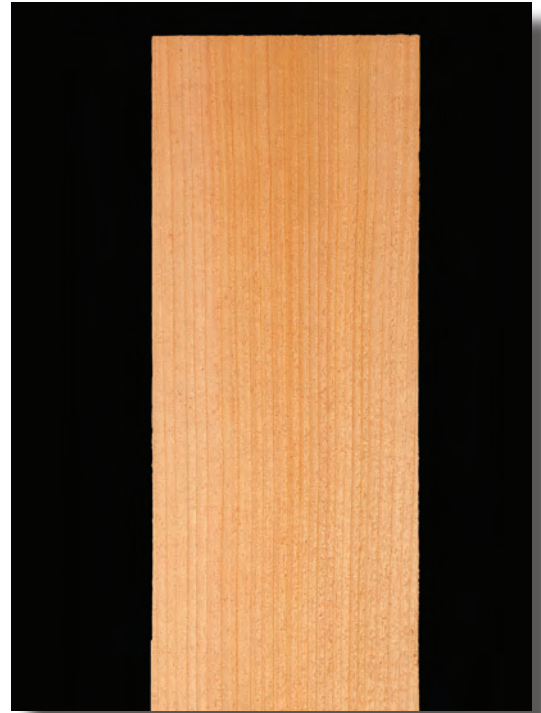


# Western Red Cedar – 1 x 6 – 6' Clear



# Western Red Cedar – 1 x 6 – 6' Clear

Clear is the highest quality product available. It will be free of defects creating a very clean and uniform look.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

Clear	None	Limited	Moderate	Common
Black ring knot	None	Limited	Moderate	Common
Unsound knot	None	Limited	Moderate	Common
Loose knot	None	Limited	Moderate	Common
Spike knot	None	Limited	Moderate	Common
Heart knot	None	Limited	Moderate	Common
Pin knot	None	Limited	Moderate	Common
Thru hole	None	Limited	Moderate	Common
Shake	None	Limited	Moderate	Common
Splits	None	Limited	Moderate	Common
Checks	None	Limited	Moderate	Common
Decay	None	Limited	Moderate	Common
Bark streak	None	Limited	Moderate	Common
Insect damage	None	Limited	Moderate	Common
Machine gouge	None	Limited	Moderate	Common
Wane	None	Limited	Moderate	Common



# Western Red Cedar - 1 x 6 - 6' #1-2Face





# Western Red Cedar - 1 x 6 - 6' #1-2Face

#1-2Face will have tight sound knots with little defect. It is the highest quality board produced in which knots are allowed.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

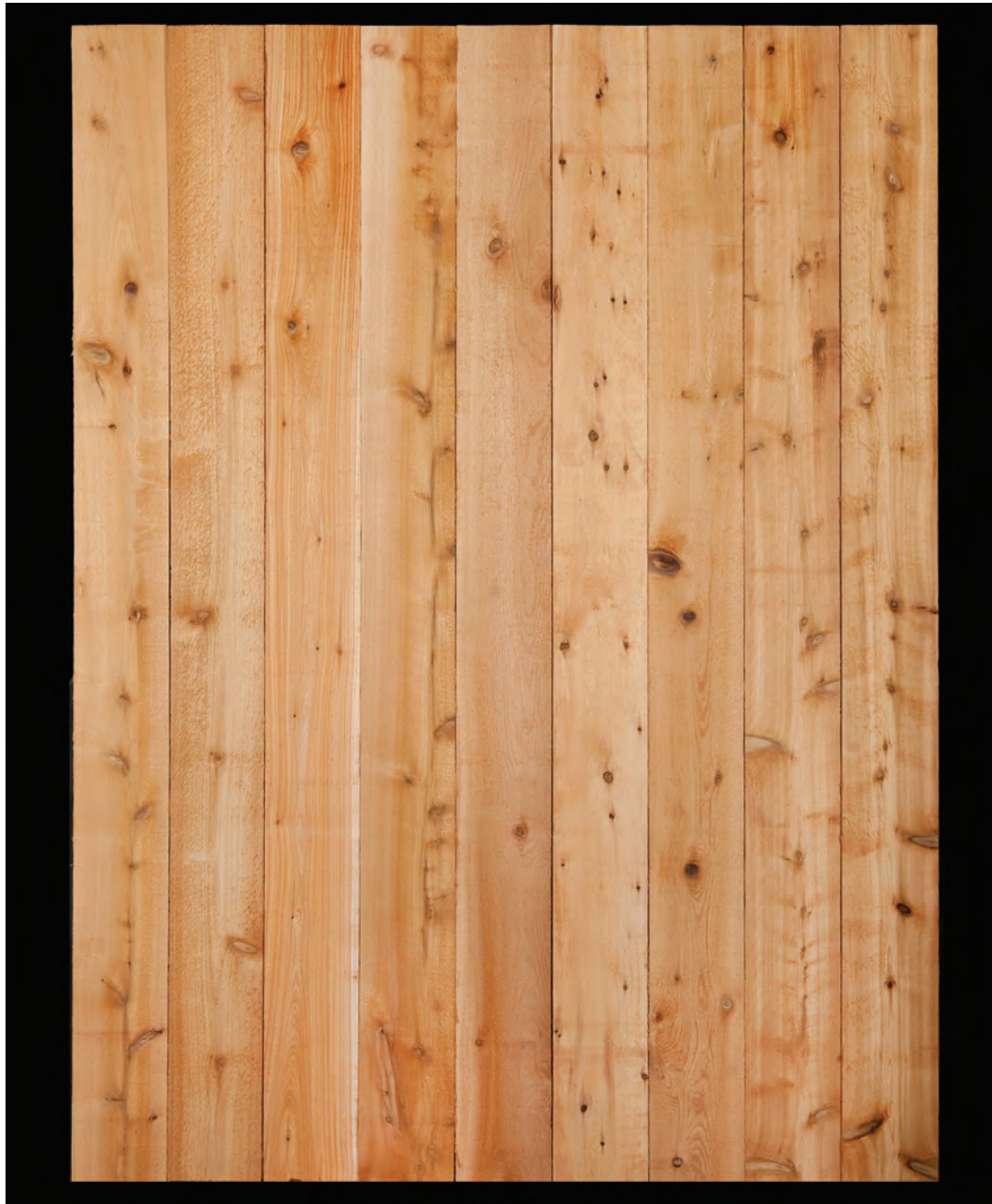
Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#1-2Face	None	Limited	Moderate	Common
Black ring knot	None	Limited	Moderate	Common
Unsound knot	None	Limited	Moderate	Common
Loose knot	None	Limited	Moderate	Common
Spike knot	None	Limited	Moderate	Common
Heart knot	None	Limited	Moderate	Common
Pin knot	None	Limited	Moderate	Common
Thru hole	None	Limited	Moderate	Common
Shake	None	Limited	Moderate	Common
Splits	None	Limited	Moderate	Common
Checks	None	Limited	Moderate	Common
Decay	None	Limited	Moderate	Common
Bark streak	None	Limited	Moderate	Common
Insect damage	None	Limited	Moderate	Common
Machine gouge	None	Limited	Moderate	Common
Wane	None	Limited	Moderate	Common



# Western Red Cedar – 1 x 6 – 6' #2/Btr NH



# Western Red Cedar – 1 x 6 – 6' #2/Btr NH

#2/Btr NH (#2 and Better No Hole) offers a structurally sound and aesthetically pleasing product achieved by blending the #1-2 Face and #2 grades. It will be knotty in appearance and include little to moderate defect.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#2/Btr NH	None	Limited	Moderate	Common
<b>Black ring knot</b>				
<b>Unsound knot</b>				
<b>Loose knot</b>				
<b>Spike knot</b>				
<b>Heart knot</b>				
<b>Pin knot</b>				
<b>Thru hole</b>				
<b>Shake</b>				
<b>Splits</b>				
<b>Checks</b>				
<b>Decay</b>				
<b>Bark streak</b>				
<b>Insect damage</b>				
<b>Machine gouge</b>				
<b>Wane</b>				





# Western Red Cedar – 1 x 6 – 6' #3/Btr NH



# Western Red Cedar – 1 x 6 – 6' #3/Btr NH

#3/Btr NH (#3 and Better No Hole) will have moderate defects; it is structurally sound and free of holes at the time of manufacture. It is graded as a quality product that will show the character of larger knots, some splits, and increased wane.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#3/Btr NH	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				



# Western Red Cedar – 1 x 6 – 6' Rustic



# Western Red Cedar – 1 x 6 – 6' Rustic

Rustic is produced with a “rustic appearance” in mind; it is structurally sound, however it can include a greater number of defects including thru holes.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

	Rustic	None	Limited	Moderate	Common
<b>Black ring knot</b>				██████████	██████████
<b>Unsound knot</b>				██████████	██████████
<b>Loose knot</b>				██████████	██████████
<b>Spike knot</b>				██████████	██████████
<b>Heart knot</b>				██████████	██████████
<b>Pin knot</b>				██████████	
<b>Thru hole</b>				██████████	██████████
<b>Shake</b>				██████████	
<b>Splits</b>				██████████	
<b>Checks</b>				██████████	
<b>Decay</b>				██████████	
<b>Bark streak</b>			██████████	██████████	
<b>Insect damage</b>				██████████	
<b>Machine gouge</b>			██████████	██████████	
<b>Wane</b>				██████████	██████████





# Western Red Cedar – 1 x 5.5 – 6' Clear





# Western Red Cedar – 1 x 5.5 – 6' Clear

Clear is the highest quality product available. It will be free of defects creating a very clean and uniform look.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

Clear	None	Limited	Moderate	Common
<b>Black ring knot</b>				
<b>Unsound knot</b>				
<b>Loose knot</b>				
<b>Spike knot</b>				
<b>Heart knot</b>				
<b>Pin knot</b>				
<b>Thru hole</b>				
<b>Shake</b>				
<b>Splits</b>				
<b>Checks</b>				
<b>Decay</b>				
<b>Bark streak</b>				
<b>Insect damage</b>				
<b>Machine gouge</b>				
<b>Wane</b>				

# Western Red Cedar – 1 x 5.5 – 6' #1-2Face



# Western Red Cedar – 1 x 5.5 – 6' #1-2Face

#1-2Face will have tight sound knots with little defect. It is the highest quality board produced in which knots are allowed.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#1-2Face	None	Limited	Moderate	Common
Black ring knot	None	Limited	Moderate	Common
Unsound knot	None	Limited	Moderate	Common
Loose knot	None	Limited	Moderate	Common
Spike knot	None	Limited	Moderate	Common
Heart knot	None	Limited	Moderate	Common
Pin knot	None	Limited	Moderate	Common
Thru hole	None	Limited	Moderate	Common
Shake	None	Limited	Moderate	Common
Splits	None	Limited	Moderate	Common
Checks	None	Limited	Moderate	Common
Decay	None	Limited	Moderate	Common
Bark streak	None	Limited	Moderate	Common
Insect damage	None	Limited	Moderate	Common
Machine gouge	None	Limited	Moderate	Common
Wane	None	Limited	Moderate	Common



# Western Red Cedar – 1 x 5.5 – 6' #2/Btr NH NPS



# Western Red Cedar – 1 x 5.5 – 6' #2/Btr NH NPS

#2/Btr NH NPS (#2 and Better No Hole No Prior Select) offers a structurally sound and aesthetically pleasing product achieved by blending the clear, #1-2 Face, and #2 grades. It will be knotty in appearance and include little to moderate defect.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#2/Btr NH NPS	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				





# Western Red Cedar – 1 x 5.5 – 6' #3/Btr NH



# Western Red Cedar – 1 x 5.5 – 6' #3/Btr NH

#3/Btr NH (#3 and Better No Hole) will have moderate defects; it is structurally sound and free of holes at the time of manufacture. It is graded as a quality product that will show the character of larger knots and increased wane.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#3/Btr NH	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				

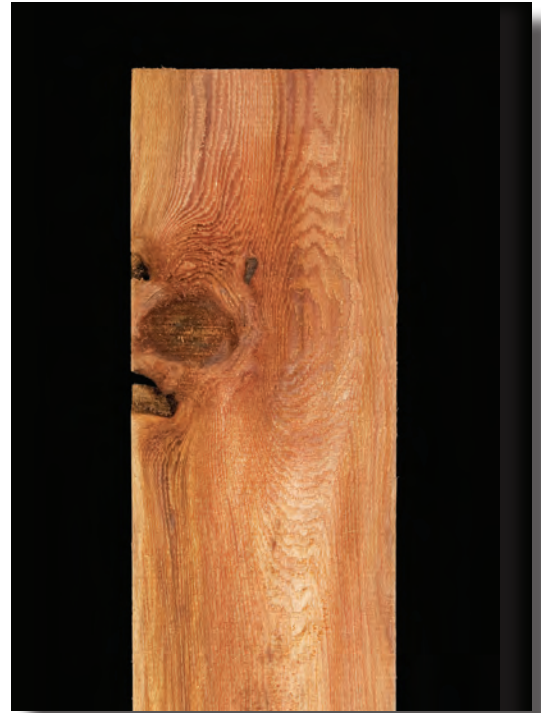


# Western Red Cedar – 1 x 5.5 – 6' Rustic



# Western Red Cedar – 1 x 5.5 – 6' Rustic

Rustic is produced with a “rustic appearance” in mind; it is structurally sound, however it can include a greater number of defects including thru holes.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

	Rustic	None	Limited	Moderate	Common
<b>Black ring knot</b>				██████████	██████████
<b>Unsound knot</b>				██████████	██████████
<b>Loose knot</b>				██████████	██████████
<b>Spike knot</b>				██████████	██████████
<b>Heart knot</b>				██████████	██████████
<b>Pin knot</b>				██████████	
<b>Thru hole</b>				██████████	██████████
<b>Shake</b>				██████████	
<b>Splits</b>				██████████	
<b>Checks</b>				██████████	
<b>Decay</b>				██████████	
<b>Bark streak</b>			██████████		
<b>Insect damage</b>				██████████	
<b>Machine gouge</b>			██████████		
<b>Wane</b>				██████████	██████████





# Western Red Cedar – 1 x 5 – 6' #2/Btr NH NPS



# Western Red Cedar – 1 x 5 – 6' #2/Btr NH NPS

#2/Btr NH NPS (#2 and Better No Hole) offers a structurally sound and aesthetically pleasing product achieved by blending the clear, #1-2 Face, and #2 grades. It will be knotty in appearance and include little to moderate defect.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#2/Btr NH NPS	None	Limited	Moderate	Common
Black ring knot		■		
Unsound knot	■			
Loose knot	■			
Spike knot		■		
Heart knot		■		
Pin knot		■		
Thru hole	■			
Shake		■		
Splits		■		
Checks		■		
Decay	■			
Bark streak		■		
Insect damage		■		
Machine gouge		■		
Wane		■		





# Western Red Cedar – 1 x 5 – 6' #3/Btr NH



# Western Red Cedar – 1 x 5 – 6' #3/Btr NH

#3/Btr NH (#3 and Better No Hole) will have moderate defects; it is structurally sound and free of holes at the time of manufacture. It is graded as a quality product that will show the character of larger knots and increased wane.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#3/Btr NH	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				

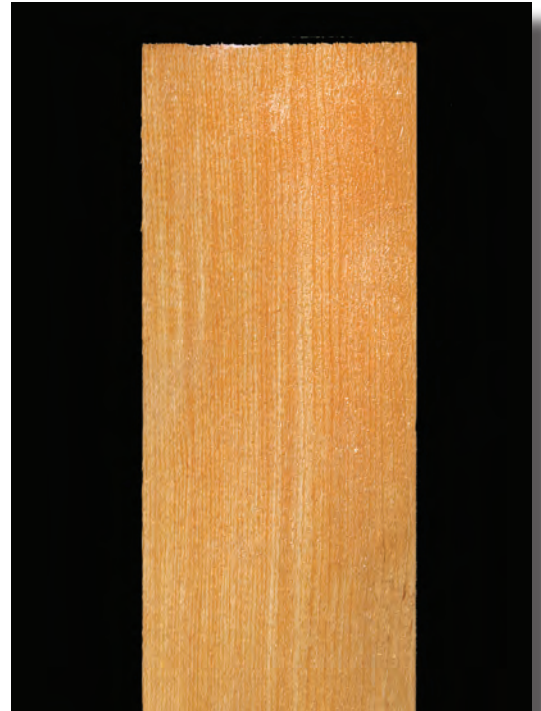


# Western Red Cedar – 1 x 4 – 6' Clear



# Western Red Cedar – 1 x 4 – 6' Clear

Clear is the highest quality product available. It will be free of defects creating a very clean and uniform look.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

Clear	None	Limited	Moderate	Common
<b>Black ring knot</b>				
<b>Unsound knot</b>				
<b>Loose knot</b>				
<b>Spike knot</b>				
<b>Heart knot</b>				
<b>Pin knot</b>				
<b>Thru hole</b>				
<b>Shake</b>				
<b>Splits</b>				
<b>Checks</b>				
<b>Decay</b>				
<b>Bark streak</b>				
<b>Insect damage</b>				
<b>Machine gouge</b>				
<b>Wane</b>				



# Western Red Cedar – 1 x 4 – 6' #1-2Face





# Western Red Cedar – 1 x 4 – 6' #1-2Face

#1-2Face will have tight sound knots with little defect. It is the highest quality board produced in which knots are allowed.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

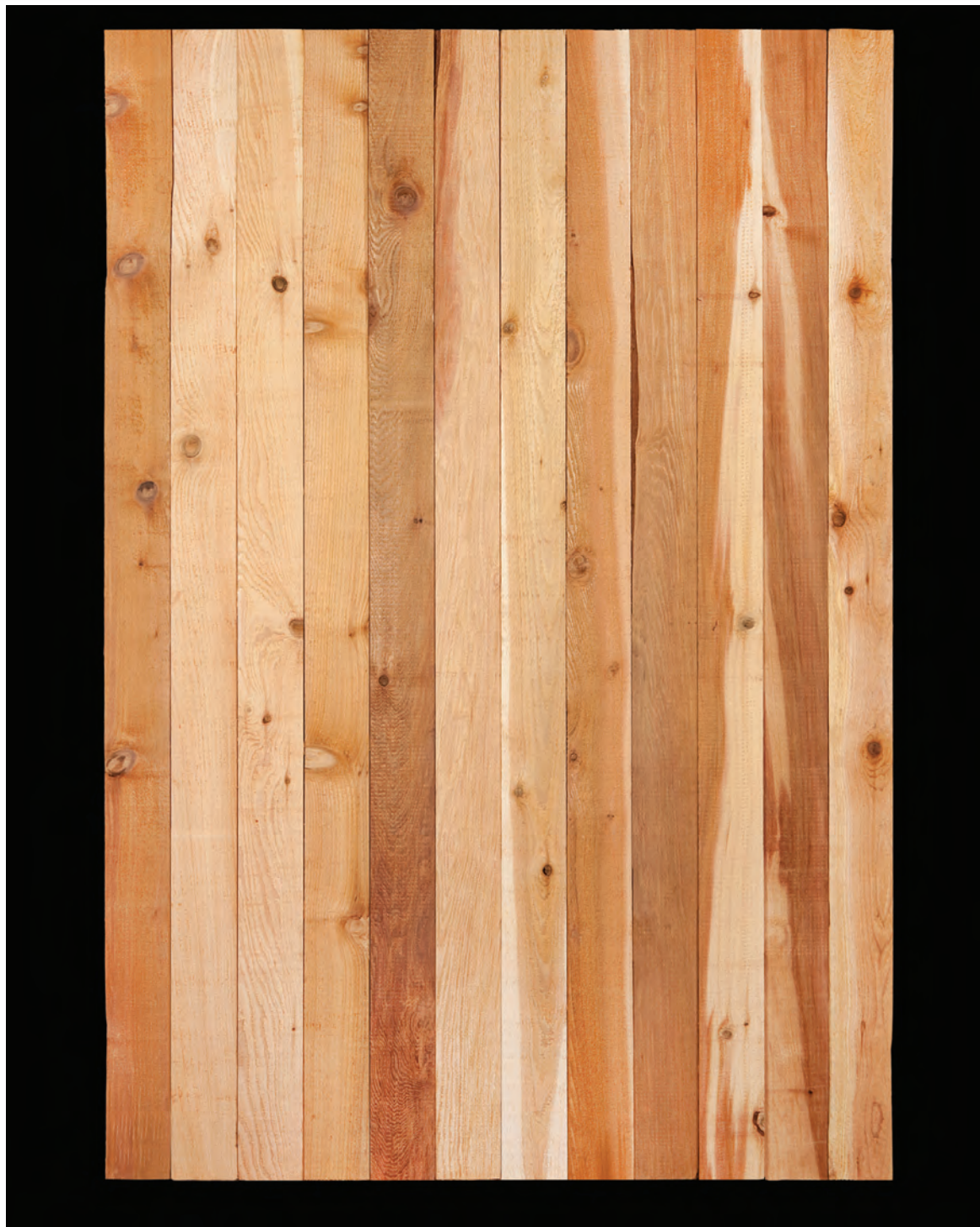
Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#1-2Face	None	Limited	Moderate	Common
Black ring knot	None	Limited	Moderate	Common
Unsound knot	None	Limited	Moderate	Common
Loose knot	None	Limited	Moderate	Common
Spike knot	None	Limited	Moderate	Common
Heart knot	None	Limited	Moderate	Common
Pin knot	None	Limited	Moderate	Common
Thru hole	None	Limited	Moderate	Common
Shake	None	Limited	Moderate	Common
Splits	None	Limited	Moderate	Common
Checks	None	Limited	Moderate	Common
Decay	None	Limited	Moderate	Common
Bark streak	None	Limited	Moderate	Common
Insect damage	None	Limited	Moderate	Common
Machine gouge	None	Limited	Moderate	Common
Wane	None	Limited	Moderate	Common



# Western Red Cedar – 1 x 4 – 6' #2/Btr NH



# Western Red Cedar – 1 x 4 – 6' #2/Btr NH

#2/Btr NH (#2 Better No Hole) will have a broad range of knots both in size and type, creating a nicely blended, durable product with minimal to moderate defect.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#2/Btr NH	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				



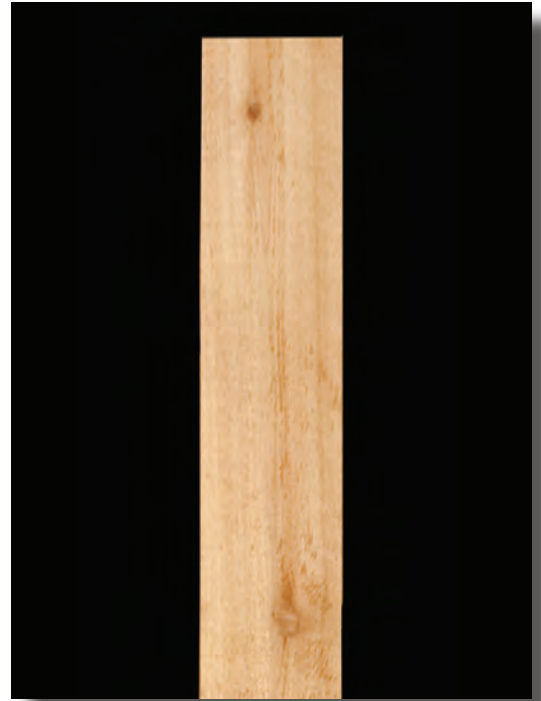


# Western Red Cedar – 1 x 4 – 6' #3/Btr NH



# Western Red Cedar – 1 x 4 – 6' #3/Btr NH

#3/Btr NH (#3 and Better No Hole) will have moderate defects; it is structurally sound and free of holes at the time of manufacture. It is graded as a quality product that will show the character of larger knots, some splits, and increased wane.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#3/Btr NH	None	Limited	Moderate	Common
Black ring knot			██████████	
Unsound knot		██████████		
Loose knot		██████████		
Spike knot			██████████	
Heart knot			██████████	
Pin knot			██████████	
Thru hole	██████████			
Shake			██████████	
Splits			██████████	
Checks			██████████	
Decay		██████████		
Bark streak		██████████		
Insect damage			██████████	
Machine gouge		██████████		
Wane			██████████	





# Western Red Cedar – 1 x 4 – 6' Rustic





# Western Red Cedar – 1 x 4 – 6' Rustic

Rustic is produced with a “rustic appearance” in mind; it is structurally sound, however it can include a greater number of defects including thru holes.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

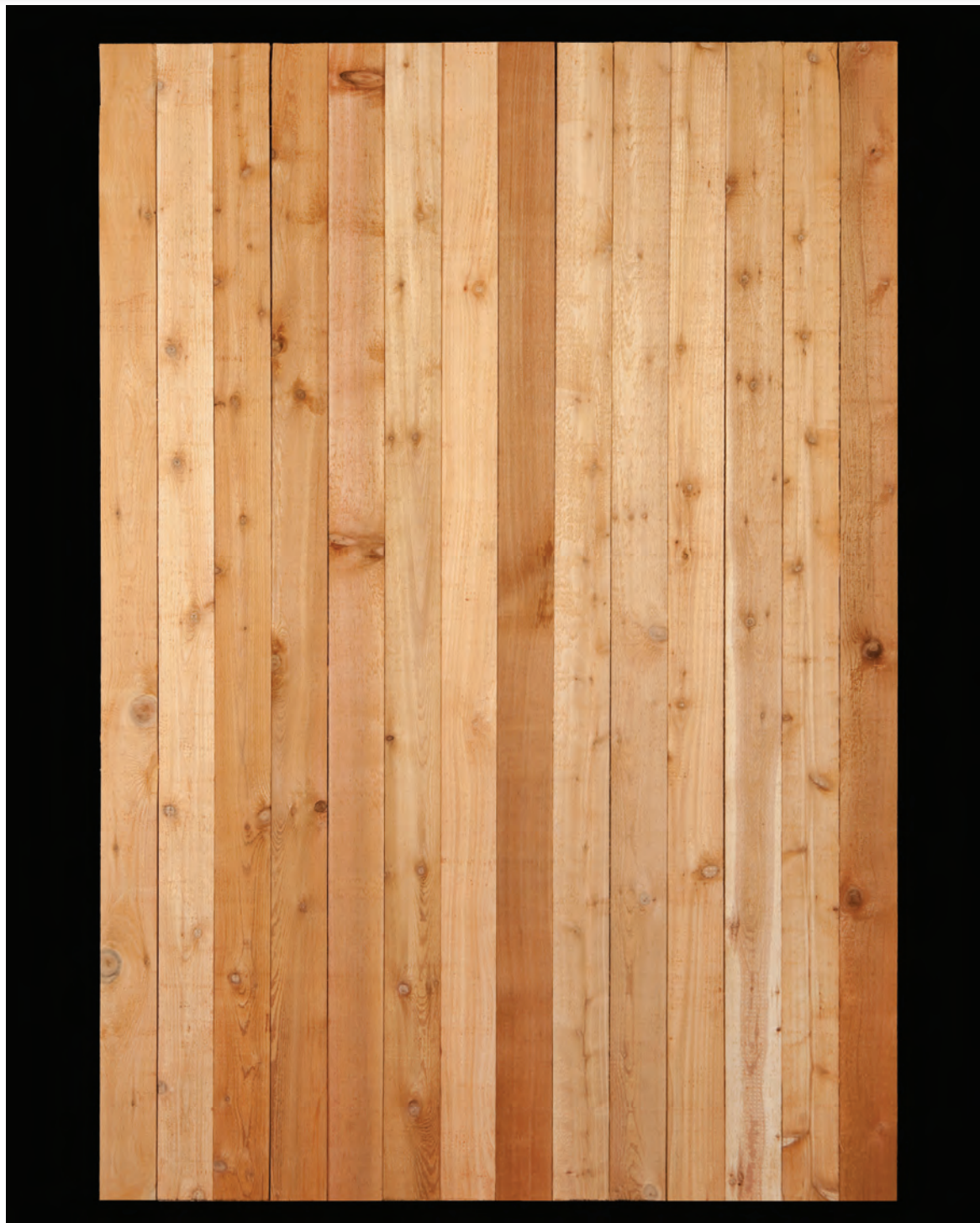
Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

	Rustic	None	Limited	Moderate	Common
<b>Black ring knot</b>				██████████	██████████
<b>Unsound knot</b>				██████████	██████████
<b>Loose knot</b>				██████████	██████████
<b>Spike knot</b>				██████████	██████████
<b>Heart knot</b>				██████████	██████████
<b>Pin knot</b>				██████████	
<b>Thru hole</b>				██████████	██████████
<b>Shake</b>				██████████	
<b>Splits</b>				██████████	
<b>Checks</b>				██████████	
<b>Decay</b>				██████████	
<b>Bark streak</b>			██████████	██████████	
<b>Insect damage</b>				██████████	
<b>Machine gouge</b>			██████████	██████████	
<b>Wane</b>				██████████	██████████



# Western Red Cedar – 1 x 3.5 – 6' #2/Btr NH NPS



# Western Red Cedar – 1 x 3.5 – 6' #2/Btr NH NPS

#2/Btr NH NPS (#2 and Better No Hole No Prior Select) offers a structurally sound and aesthetically pleasing product achieved by blending the clear, #1-2 Face, and #2 grades. It will be knotty in appearance and include little to moderate defect.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#2/Btr NH NPS	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				





# Western Red Cedar – 1 x 3.5 – 6' #3/Btr NH



# Western Red Cedar – 1 x 3.5 – 6' #3/Btr NH

#3/Btr NH (#3 and Better No Hole) will have moderate defects; it is structurally sound and free of holes at the time of manufacture. It is graded as a quality product that will show the character of larger knots, some splits, and increased wane.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

#3/Btr NH	None	Limited	Moderate	Common
Black ring knot				
Unsound knot				
Loose knot				
Spike knot				
Heart knot				
Pin knot				
Thru hole				
Shake				
Splits				
Checks				
Decay				
Bark streak				
Insect damage				
Machine gouge				
Wane				



# Western Red Cedar – 1 x 3.5 – 6' Rustic





# Western Red Cedar – 1 x 3.5 – 6' Rustic

Rustic is produced with a “rustic appearance” in mind; it is structurally sound, however it can include a greater number of defects including thru holes.



## Characteristic Attributes

The grade chart to the right depicts the most common defects found in Western Red Cedar.

Grade is determined by the type and position of knots, as they relate to the structural integrity of the board, as well as wane, shake, or other visible characteristics.

All of the permitted characteristics listed are never permitted in maximum size or number, in any one piece, or in any one unit.

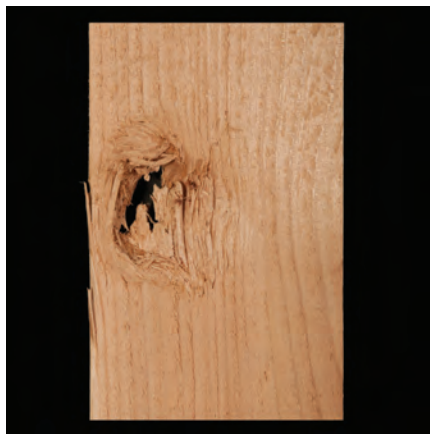
	Rustic	None	Limited	Moderate	Common
<b>Black ring knot</b>				██████████	██████████
<b>Unsound knot</b>				██████████	██████████
<b>Loose knot</b>				██████████	██████████
<b>Spike knot</b>				██████████	██████████
<b>Heart knot</b>				██████████	██████████
<b>Pin knot</b>				██████████	
<b>Thru hole</b>				██████████	██████████
<b>Shake</b>				██████████	
<b>Splits</b>				██████████	
<b>Checks</b>				██████████	
<b>Decay</b>				██████████	
<b>Bark streak</b>			██████████	██████████	
<b>Insect damage</b>				██████████	
<b>Machine gouge</b>			██████████	██████████	
<b>Wane</b>				██████████	██████████



## Common Characteristics - Defined



**Bark streak** — During the growth of a tree, well-defined openings can develop between the annual rings allowing bark growth. These seams can create a streak or pocket of bark on sawn lumber.



**Machine gouge** — Usually caused by the “dogs” on a saw carriage which are used to hold the log in place for sawing. However, any fiber damage by sawmill machinery will be classified as machine gouge.



**Checks (checking)** — A separation of the wood normally occurring across or through the rings of annual growth, often caused by seasoning too rapidly.



**Black ring knot** — Occurs when a limb dies in a living tree. The wood fibers continue to grow around the limb, but it is no longer a part of the tree and is treated as a foreign body. The tree produces a protective layer of pitch or bark, often dark or black in color, between itself and the dead limb. When the knot is sawn, a “black ring” is created around the knot.



**Insect damage** — While Western Red Cedar has properties which allow it to be resistant to most decay and insect infestation. Insect damage can occur from beetles, grub and water-borne insects in both standing and fallen timber. Insect damage is usually identified by trough shaped trails on the face of sawn lumber. Boring insects can also create thru holes in some cases.



**Decay (rot, unsound wood)** — A destruction of the wood fiber due to the action of microorganisms. Most forms of decay will not progress after the tree is harvested.



**Thru hole** — A section of lumber that is void of fiber wholly through the piece. The most common cause of thru hole is from the loss of a knot.



**Split** — A separation of wood through the piece to the opposite surface, caused by the tearing apart of the wood cells.



**Spike knot** — A knot created when a limb is sawn either lengthwise or diagonally across the face of a piece of lumber.



**Unsound (soft) knot** — A knot that keeps its position, but contains decay or is soft to the touch.



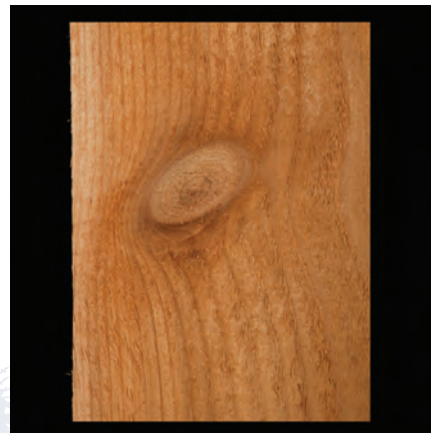
**Loose knot** — A knot that will not keep its position in a piece of sawn lumber.



**Wane** — The lack of wood fiber on the edge or corner of a piece of lumber.



**Pin knot** — A small knot or grain swirl.



**Heart knot** — A knot created when a limb is sawn at a right angle to its length.