

American hardwood lumber grading Q&A series: article 10

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By Bob Sabistina, grading consultant to the American Hardwood Export Council

The Grading Rules for North American hardwood lumber were established 100 years ago by the National Hardwood Lumber Association (NHLA), which is now headquartered in Memphis, Tennessee. I have been writing a series of articles for the eighteen months, answering a variety of questions pertaining to the application of those grading rules. This month's article answers some of the questions I have received over the past few months. These questions come from all over the world, as the American Hardwood Export Council (AHEC) has been distributing this article from Europe to Asia.

It seems that the more I learn about American hardwood lumber grading, the more confused I get. I see numerous variations in the grades according to species. Can you explain what the species exceptions are according to the NHLA rules?

The National Hardwood Lumber Association (NHLA) grading rules have been the standard for hardwood lumber transactions throughout North America for over 100 years. Within this standard framework, companies have been seeking ways to tweak their grading standards, thus elevating their products into a more custom, added-value product. The following notes and exceptions are an amalgamation of the NHLA rules and current marketing trends.

Red Alder: The grading rules are unique for this western USA hardwood. Key points include the following: The lumber is kiln-dried, surfaced, and then inspected from the better face. Pin knots are a natural characteristic and are not considered a defect. The primary grades include Superior (Select & Better), Cabinet (No.1 Common), and Frame (No.2 Common), which adapt themselves to similar uses as the standard NHLA grades. Your best option is to work closely with your red alder supplier to find the best grade that will work for you.

Ash: When the purchasing specifications call for a white (sapwood) or brown (heartwood) colour in the clear cuttings, I always refer buyers to the colour specifications for hard maple. These can be found in the back pages of AHEC's Illustrated Guide to American Hardwood Lumber Grades (available online at www.ahec-europe.org), as well as in the NHLA's

Rules for the Measurement & Inspection of Hardwood & Cypress. Light brown flecks or mineral streaks - sometimes referred to as glassworm - are also common and are treated as a natural characteristic and not considered a defect.

Aspen: Regionally referred to as popple and is not to be confused with American tulipwood (*Liriodendron tulipifera*), which is also known as yellow poplar. Light brown mineral streaks are naturally occurring and are not considered a defect.

Basswood: Often produced in 9/4 (57.15mm) thickness for Venetian blinds. Black and brown mineral streaks are admitted in the clear-face cuttings. Dormant twig buds are not considered a defect.

Beech: Standard grading in all respects with an occasional brown mineral streak which is not considered a defect.

Yellow birch: This northern species is often sorted for sap (sapwood) or red (heartwood) clear cuttings. Again, I refer you to the grading specifications for hard maple colour sorts. When sorted for colour, the FAS grade will allow a 5 inch width. Paper birch is a much softer birch species, which is lighter in colour with scattered brown flecks and should not be mixed with yellow birch.

Cherry: This premium wood has naturally occurring pin knots and gum streaks which are not considered defects. Sapwood is admitted without limit. Because of this NHLA rule, cherry is often sold with a heartwood specification such as 90/50, which means one face will be 90% heartwood and not less than 50% heartwood on the back side. Consult your supplier about how their cherry is being sold.

Cottonwood: Sometimes regionally referred to as white poplar and is not to be confused with American tulipwood or yellow poplar. Sometimes sawn in 9/4 (57.15mm) thickness for Venetian blinds.

Elm: Purchase orders should specify American red or grey elm. Bird pecks and the purple mineral streaks, which are often present, are admitted in the clear-face cuttings.

Gum: Often sold as sap gum and no colour specification is required. When sold as red gum, each clear cutting is required to have one red (heartwood) face.

Hackberry: Sometimes regionally referred to as sugarberry and used as an ash substitute. It is best to purchase surfaced lumber, as an interior blue stain is not uncommon.

Hickory and pecan: Typically referred to as hickory in the North and pecan in the southern USA. Bird pecks and the purple mineral streaks extending from the peck are naturally occurring and are not considered a defect. This heavy hardwood can be susceptible to interior blue stain and purchasing surfaced lumber is recommended to ensure good colour throughout. The FAS grade allows a 4 inch minimum width.

Hard maple: Most often sorted for the white (sapwood) colour. Refer to AHEC's Illustrated Guide to American Hardwood Lumber Grades or website for these specifications. When sold as No.1 & 2 White, the FAS grade permits a 4 inch minimum width. When sold as Sap the FAS grade allows a 5 inch minimum width. When sold as Regular or Unselected, the full colour spectrum of the log should be represented. When sold as Brown, all sapwood or white has been sorted out and the majority of the clear-face cuttings will be heartwood. Green-grey mineral streaks are admitted in all the clear-face grades.

Eastern soft maple: Typically red-leaf maple in the North and silver-leaf maple through the Midwest and southern USA. It is essential to discuss this with your supplier, as they are very different in appearance. The red-leaf tends to resemble hard maple and is much more consistent in colour, while the silver-leaf has a wide range of colours and can have a slightly softer texture. Both species can produce a highly figured wormy variety which is sold WHND or Worm Holes No Defect. All soft maple varieties can be sorted for colour according to the specifications in the grading guide.

Pacific coast maple: This western USA species follows the grading guidelines for red alder. The main grades are Select & Better, No.1 Common, and Frame. It is sold kiln-dried, surfaced, and graded from the better face with naturally occurring pin knots, which are not considered a defect. For best results, consult your supplier for the grade that will suit your needs.

Red oak: I used considerable space in my last column to discuss the regional differences of this important American hardwood. It is graded true to the NHLA standard allowing naturally occurring mineral streaks in the clear-face cuttings. Red oak is becoming more readily available in fixed widths.

White oak: Tends to be consistent in colour throughout its wide northern to southern range. Certain areas of the Appalachian Mountains produce a highly figured wormy variety and this is sold as Sound Wormy. Sapwood is admitted without limit in the NHLA rules, but usually sorted with a minimum of one heartwood face for export. Consult your supplier about their grading standards for sapwood.

Quartered and rift sawn red and white oak: When specified, 90% of the clear-face cuttings must show figure or straight grain respectfully. The FAS grade will allow a 5 inch minimum width.

Sassafrass: Not readily available as lumber, and is graded true to the NHLA standard.

Sycamore: This species tends to move during the drying process and it is recommended that it should be graded after kiln drying.

Tulipwood: Widely known as yellow or tulip poplar in the USA. Burls and swirls in the grain are a common occurrence and are not considered defects. A heavy purplish-blue mineral colour is limited in the upper grades and unlimited in the Common grades. Tulipwood is becoming more readily available in fixed widths. Because the Common grades are generally stained or painted in finishing, a grey colour is allowed in the wood after surfacing.

Walnut: The NHLA grades have been altered for this species because of the limited availability and nature of the timber growth. The FAS grade allows a 5 inch minimum width and 6 foot minimum length. When steamed, the sapwood will turn a darker colour to assist blending in the finishing process and is admitted without limit. Discuss with your supplier how they do this steaming process for best results.

Willow: Burls and swirls are very common and are not considered a defect.

If you have any questions related to the NHLA grades or AHEC and our upcoming programmes, please email me at: info@americanredoak.com. Dit e-mailadres is beschermd tegen spambots. U heeft Javascript nodig om het te kunnen zien.

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American Hardwood Export Council

The American Hardwood Export Council (AHEC) is the leading international trade association for the US hardwood industry, representing the committed exporters among US hardwood companies and all the major US hardwood product trade associations. AHEC concentrates its efforts on providing architects, specifiers, designers and end-users with technical information on the range of species, products and sources of supply.

AHEC produces a full range of technical publications which are available free of charge by visiting www.ahec-middleeast.org, www.sustainablehardwoods.info & www.americanredoak.info or by faxing (44) 20 7626 4222.

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