Hardwood Key

Common Names	Grape	Hercules Club	Sumac, Staghorn	Chestnut	Ash	Locust, Black	Elm	Hackberry	Mulberry	Pawpaw	Hickory, Pecan	Mulberry, Red	Oak, Red	Redbud	Sassafras	Sumac, Winged	Hickory, True	Oak, White	Wax Myrtle	Walnut, American Black	Butternut	Cherry	Oak, Live	Persimmon	Alder	Basswood	Beech	Birch	Cottonwood/Aspen	Dogwood	Fruitwoods (Apple & Pear)	Maple, Hard	Holly	Hornbeam	Magnolia	Mountain Laurel	Sea Myrtle	Maple, Soft	Spicebush	Sweetgum	Sycamore	Tupelo	Willow	Witch Hazel	Tulip Poplar	Trumpet Vine
Characters Taxa	*Vitis sp.*	*Aralia spinosa*	*Rhus typhina*	*Castanea sp.*	*Fraxinus sp.*	*Robinia pseudoacacia*	*Ulmus sp.*	*Celtis sp.*	*Morus sp.*	*Asimina triloba*	*Carya sp.*	*Morus rubra*	*Quercus sp. (Erythrobalanus Group)*	*Cercis canadensis*	*Sassafras albidum*	*Rhus copallina*	*Carya sp.*	*Quercus sp. (Leucobalanus Group)*	*Myrica cerifera*	*Juglans nigra*	*Juglans cinerea*	*Prunus sp.*	*Quercus sp.*	*Diospyros virginiana*	*Alnus sp.*	*Tilia heterophylla*	*Fagus sp.*	*Betula sp.*	*Populus sp.*	*Cornus florida*	*Malus sp. & Pyrus sp.*	*Acer sp.*	*Ilex sp.*	*Carpinus caroliniana*	*Magnolia sp.*	*Kalmia latifolia*	*Baccharis halmifolia*	*Acer sp.*	*Lindera benzoin*	*Liquidambar styraciflua*	*Platanus sp.*	*Nyssa sp.*	*Salix sp.*	*Hamamelis virginiana*	*Liriodendron tulipifera*	*Campsis radicans*
Porosity																																													
Ring	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x																												x
Semi-Ring	x	x	x																x	x	x	x	x	x																					
Diffuse																			x						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
End-Grain Pattern																																													
Banded											x						x																x												
Coalesced		x	x		x	x			x	x		x			x	x																				x								x
Dendritic				x									x					x								x																		
Reticulate																				x	x					x																			
Tangential														x					x																		x								
Solitary																															x					x									
Ulmiform							x	x																																					
Vessels																																												
Deposits												x				x					x										x						x								
Spirals	x	x	x			x	x	x	x			x				x					x					x					x	x	x	x	(x)		x	x		(x)		(x)				
Tyloses		x	x			x			x			x				x		x		x	x						x								x									
Perforations																																													
Simple	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x		x	x		x	x		x		x	x		x	(x)		x	x			x				
Scalariform 6-10	x										x						x		x																				x					x	
Scalariform 11-50																									x			x		x			x			x				x		x				
Pits																																													
I/V Pits Minute (2-3)					x																			x	x			x					x								x				
I/V Pits Small (4-7)			x							x				x					x											x					x	x		x							
I/V Pits Medium (8-12)		x			(x)	x	x	x	x	x		x	x	x	x	x		x				x	x		x	x			x		x	x		x		x		x			x	x	x		x	
I/V Pits Large (13-50)		x					x		x					x		x				x	x						x		x	x				x	x					x				
I/V Pits Linear	x			x																							x			x				x						x				x	
R/V Pits Large	x	x							x							x																			x									x	
Rays																																													
Wide (>14)													x					x					x				x																		
Wide (9-14)	x	x							x	x				x																x						x								
Medium (5-8)		x				x	x	x	x	x	x	x		x			x			x		(x)			x				x	x	x				x	(x)								
Narrow (1-4)					x	x	x				x				x	x	x		x	x	x	x		x		x		x		x	x	x	x	x	x		x	x	x		x		x	x
Uniseriate			x	x																					x				x													x	x			
Aggregate																									x								x												
Homocellular					x	x	x				x	x	x	x	x		x	x		x	x		x	x		x	x	x	x		x	x		x	x		x	x		x	x			x	
Heterocellular	x	x	x			x		x	x	x	x				x	x	x			x		x		x		x	x			x			x	x	x	x	x		x	x		x	x	x	x	
Crystals	x																																												
in Axial Parenchyma				x		x	x	x	x		(x)			x	x	x	(x)	x		x		x		x			x				(x)			x				(x)					x		x	
in Rays						x		x	x						x	x		x				x		x			x				x			x									x		x	
Misc.																																													
Oil Cells										R																											R/AP								
Scalariform Parenchyma										x																																			
Rays of 2 Types														x																															

The term hardwood is a general term for flowering trees (Angiosperms) that usually have broad leaves that are shed (deciduous) and produce fruits. The term originated as a description of the hardness of the wood, although there are some soft hardwoods like Balsa (Ochroma spp.). Most imported tropical woods are