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Christmas Tree Species Guide

This document is a summary of general attributes of Christmas tree species. Specific seed source, future tree improvement efforts, and microclimate variability may alter performance of tree species at your farm.




Species	Species Notes	Advantages to growers	Challenges to Growers	Needle Retention*
 <p>Fraser Fir</p>	Native to high elevations in the southern Appalachian Mountains (NC & VA)	Most popular tree species, high market demand leading to premium price	Need acidic soils (pH <5.5) Needs well drained soils Highly susceptible to phytophthora root rot Precocious coning	Wet: Excellent Dry: Good
 <p>Canaan Fir</p>	Variety of bracted balsam fir originating in Canaan valley of West Virginia	More adaptable to sites (higher pH or wetter) than Fraser Breaks bud later than balsam and Fraser fir. Good for frost pockets in fields. Moderate resistance to phytophthora root rot		Wet: Good-Excellent Dry: Fair
 <p>Balsam Fir</p>	Native to Michigan	Excellent apical dominance Traditional species for many consumers Preferred for its strong Christmas tree scent	Early bud break, prone to late spring frosts (avoid frost pockets)	Wet: Good-Excellent Dry: Fair

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Concolor (White) Fir 	Native to western US	Longer needles Blue-green needle color Strong citrus scent Excellent option as landscape tree	Early bud break, prone to late spring frosts (avoid frost pockets) More prone to needle diseases than other firs	Wet: Good-Excellent Dry: Poor-Good Wide range based on seed source variations
Turkish Fir 	Native to mountains of Northern Turkey	Resistance to phytophthora root rot More adaptable to warming climate	Slower growing (especially during establishment phase) Early bud break, prone to late spring frosts High deer preference Difficult to source transplants	Wet: Excellent Dry: Poor-Good
Nordmann Fir 	Native to Europe and most popular species in Europe	Deep green needles with silver undersides Naturally more dense especially in markets (e.g., Europe) where shearing is less common	Slow growth after initial transplant High deer preference	Wet: Excellent Dry: Poor-Good

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<p>Korean Fir</p> 	<p>Native to Jeju Island and the Jirisan mountain range of South Korea</p>	<p>Green needles with blue-silver undersides</p> <p>Adaptive to broader range soil conditions than Fraser fir</p>	<p>Slow growth after initial transplant</p> <p>Precocious coning</p> <p>Easily develops crooked leaders, especially after initial shearing/pruning</p>	<p>Wet: Good-Excellent</p> <p>Dry: Good</p>
<p>Eastern White Pine</p> 	<p>Native to Michigan and northeastern US</p>	<p>Soft needles, dense tree</p> <p>More forgiving site conditions than firs</p> <p>Fast growing tree</p> <p>Less nitrogen requirements than fir species</p> <p>Option as landscape tree</p>	<p>Shearing required during specific time periods</p> <p>Limited popularity/market demand as Christmas tree. Consideration for budget conscious customers</p> <p>Low branch strength, limits ornament weight</p>	<p>Wet: Good-Excellent</p> <p>Dry: Good</p>
<p>Scotts (Scotch) Pine</p> 	<p>Most widely distributed pine in world. Native range stretches Scotland to Pacific Ocean and from Artic circle to Mediterranean</p>	<p>Thrives in poor site conditions, most forgiving tree species</p> <p>Drought tolerant, cold hardy</p> <p>Responds well to shearing</p> <p>Late budbreak</p>	<p>Shearing required during specific time periods</p> <p>Decreasing customer popularity due to other species</p> <p>Significant pest/disease challenges</p>	<p>Wet: Good</p> <p>Dry: Fair-Good</p>

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Douglas Fir 	Native to western US Not a true fir	Responds well to shearing Fast growing tree	Requires optimal pH (5.0 – 5.5) and excellent drainage Extremely prone to needlecast diseases	Wet: Good-Excellent Dry: Fair-Good
Colorado Blue Spruce 	Native to Western US	Excellent blue color Adaptable to higher pH soils than most firs	Prone to needlecast diseases Sharp needles, reduced market demand	Wet: Good-Excellent Dry: Fair
Black Hills Spruce 	Variety of White Spruce, Native to South Dakota	Value as Christmas or Landscape tree Adaptable to higher pH soils than most firs	Limited market demand	Wet: Fair-Good Dry: Poor

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Norway Spruce  <small>Photo: Hutton-Loyd Tree Farm</small>	Native to Northern Europe	Value as Christmas tree or Landscape tree Resistant to most needlecast diseases Adaptable to higher pH and heavier soil types than most firs	Limited market demand	Wet: Good Dry: Poor

*Needle Retention Ratings: Excellent has potential to last 4-6 weeks under typical household conditions. Good can last 3-4 weeks. Fair can last 10 days to 3 weeks. Poor lasts only 7-10 days. Results can vary greatly among seed sources. Note: It is never a good practice to display Christmas trees dry; dry ratings are intended for greenery or bough materials. Ratings were developed by Drs. Eric Hinesley and Gary Chastagner in The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks. USDA Agricultural Research Service Agriculture Handbook Number 66. Revised February 2016.

Photo Credits: Real Christmas Tree Board (all) except Norway Spruce (Hutton-Loyd Tree Farm)

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