

WHITESPIRE JAPANESE WHITE BIRCH

(*Betula platyphylla japonica* 'WHITESPIRE')

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Dr. E. R. Hasselkus

The cultivar name 'WHITESPIRE' has been officially registered for the birch which formerly was known as P.I. 235128 or the "University of Wisconsin strain" of the Japanese white birch. Whitespire has proven to be the most borer-resistant white-barked birch under evaluation in the Longenecker Horticultural Gardens of the University of Wisconsin Arboretum—Madison. Three 28-year-old trees have remained free of the bronze birch borer on a droughty site where plants of *Betula pendula*, *populifolia*, *pubescens*, *utilis* and other seed strains of *B. platyphylla japonica* have become infested with borers. Its borer-resistance has been confirmed in trials at The Ohio State University.

Seedlings of *B. platyphylla japonica* P.I. 235128 were received from the U.S. Plant Introduction Station, Glenn Dale, MD in 1957. Dr. John Creech had collected the seed from a single tree in a native stand of trees in the Yatsugatake mountain range in Nagano Prefecture, Japan. According to Dr. Creech, *B. p. japonica* occurs in two distinct distribution regions, a massive northern distribution that connects eventually with the Siberian distribution and a separate distribution in central Honshu. There is a distinct band where the tree does not occur between these two regions of distribution. P.I. 235128 came from the southern part of the latter distribution. This may explain its tolerance of high temperature stress and possibly its borer

resistance.

The 28-year-old University of Wisconsin Arboretum trees now measure 35 feet in height and 15 feet in spread. They have a distinctive narrow pyramidal form with fine-textured leaves and twigs. The non-exfoliating, chalky white bark is marked with black triangles at the bases of lateral branches.

The Evergreen Nursery, Sturgeon Bay recognized the potential of this birch and has been its major grower and promoter. Seed of 'Whitespire' has been distributed annually to Evergreen Nursery and several other Midwest nurseries during the past nine years, so liners are now widely distributed throughout this country. Having been propagated from seed, there is no assurance that these seedling progeny are not hybrids, however, the relative isolation of the parent tree makes this unlikely. Seven-year-old seedling progeny of Whitespire birch have attained a height of 20 feet and a spread of 9 feet. They are extremely uniform with well-developed white bark and the slender pyramidal form of the parent tree.

Vegetative propagation of cuttings taken from the parent tree has been generally unsuccessful. However, propagation through

microculture has been accomplished by Knight Hollow Nursery of Madison, providing the potential for clonal propagation of 'Whitespire' by the nursery industry.

Whitespire birch is winter hardy throughout Wisconsin and has survived summer temperatures as high as 120°F in Oklahoma. Although adaptable to a wide range of soils, poor drainage results in stunting and the development of chlorotic foliage. It is currently the only white-barked birch with resistance to the bronze birch borer.



Bark of Whitespire birch is chalky-white.

Editor's Note: Dr. Edward Hasselkus is a Professor in the Department of Horticulture at the UW—Madison. Well known throughout Wisconsin, as well as the rest of the country, as an expert on landscape plant materials, Dr. Hasselkus was a speaker at the WGCSA meeting held at Maple Crest C.C. in Somers, Wisconsin in 1983.



Whitespire birch has a narrow pyramidal form.

ATTENTION!

Due to a scheduling oversight, the March meeting of the WGCSA has been changed to **Monday, March 25**. The time will be **10:30**. The place remains the Traveller's Inn in Fond du Lac.

You must mail in a second reservation; it will be in your mail soon. Apologies for any inconvenience.