Superior Winter-Hardy Plum Cultivars

INVENTORS • Brian Smith


A plant breeder who specializes in the development of winter-hardy fruits has now produced a winter-hardy cultivar called BlackIce™ Plum for the fresh market.

OVERVIEW

There is a demand to grow high quality plums and other fruits in northern climates where they have not been cultivated in the past. Increasing the range of these fruits can be economically promising because of increase of fruit production and the possibility of less transportation to bring the fruit to the place of sale. These more hardy plant varieties are produced by combining previously established plant varieties known for specific traits (i.e. fruit color, taste, hardiness, etc.).

THE INVENTION

BlackIce™ Plum is the result of a cross between the ‘Oka’ cherry plum and a conventional Japanese dessert plum (Prunus salicina) known as ‘Z’s Blue Giant.’ Oka has in its lineage P. besseyi, a native North American plum species adapted to northern climes. P. besseyi can withstand severe winters and generally is more productive and ripens one month earlier than P. americana, a native plum more commonly used to produce hardiness in new hybrids. BlackIce™ Plum yields fruit that rivals many California-grown dessert plums in flavor and appearance, and matures two to four weeks earlier than any other large, high-quality plum grown in the Midwestern U.S. BlackIce™ Plum also grows and yields fruit in the U.S. Department of Agriculture’s hardiness zone 3b (-30 to -35 degrees Fahrenheit) and above, making it suitable for production in northern climates. BlackIce™ Plum exhibits a naturally compact growth habit and good graft compatibility with most common plum rootstocks. The new plum cultivar also shows average susceptibility to brown rot (Monilinia fructicola) and black knot (Dibotryon morbosum), and is more tolerant to bacterial spot (Xanthomonas campestris pv. Pruni) when compared to most Japanese-American hybrids grown in the Midwest.

KEY BENEFITS

• Produces fruit similar to many conventional, California grown plums: large, dark-blue
to black in color, nearly round in shape, and with excellent flavor
• Shows superior winter hardiness, yielding fruit in the USDA hardiness zone 3b (-30 to -35 degrees Fahrenheit)
• Matures 2-4 weeks earlier than any other large, high-quality plum grown in the Midwestern U.S.
• Exhibits a naturally compact growth habit, making trees easier to manage
• Yield is comparable to popular, conventional cultivars
• BlackIce’s™ overall disease tolerance is similar or superior to that of plum cultivars commonly grown in the Midwest

ADDITIONAL INFORMATION

Tech Fields
Agriculture - Plant varieties

CONTACT INFORMATION

For current licensing status, please contact Jennifer Souter at jennifer@wisys.org or (608) 316-4131.

FIGURES

*The ‘BlackIce plum’ (photo courtesy of Brian Smith).*