Variety Name or Germplasm Designation: B1111
Crop(Common Name): Carrot
Genus Name: *Daucus*
Species Name: *carota*

The United States Department of Agriculture, Agricultural Research Service announces the release of a carrot inbred B1111 to provide germplasm for developing improved germplasm and proprietary hybrids.

Hybrid combinations with B1111 were entered in carrot trials in California from 2002 to 2006. These trials are evaluated for performance in two different categories for California production: 'cello' carrots intended for sale as whole carrots, and 'cut and peel' carrots intended for sale as "baby" carrots. From 60 to 75 'cello' and 100 'cut and peel' carrot hybrids including entries from all seed companies selling hybrid carrots are included in these trials, along with selected hybrids from the USDA carrot breeding program. The top tier of these trials includes those entries in the top 20%. Three B1111 hybrids entries were ranked in the top tier of 'cello' hybrids in 2003 and 2005, two B1111 hybrids were in the top tier in 2004 and 2006, and one in 2002. In 2003 two hybrid combinations of B1111 ranked in the top tier of 'cut and peel' hybrids, while in 2005 and 2006 one hybrid combination of B1111 was in the top tier of this group.

B1111 was derived from a cross made in 1990 at the University of Wisconsin Horticulture Greenhouses between B7241 and B5280. Beginning in the F_2 generation selection was made for dark orange color, and long, smooth blunt roots. Two F_3 plants were selected in 1999 for both desirable appearance and for mild, sweet flavor and selection for these appearance and flavor attributes was continued for subsequent generations of sib-mating among 3 to 15 plants each generation. The best selection among 8 sibling populations was selected and grown in row 1111 in California in 2001. Now at F_2M_8 generation, B1111 is the result of 7 generations of selection for appearance and 6 generations of selection for culinary quality. B1111 is a maintainer of sterility ("B" line) and a petaloid cytosterile counterpart ("A" line) is in Wisconsin Wild cytoplasm and now is at BC_4. B1111 demonstrates early to mid-season flower maturity, and produces abundant pollen and seed.

Roots of B1111 are 15-20 cm long, slightly tapered, blunt, smooth and dark orange. Carotene content of roots at typical harvest size is 220 to 270 ppm, compared to 130 to 180 ppm for typical modern fresh market carrots. Flavor is mild and sweeter than average, and this desirable flavor is expressed in many hybrid combinations employing B1111. B1111 is susceptible to warm-season root-knot nematodes (*Meloidogyne incognita, M. javanica*) and moderately tolerant to Alternaria leaf blight. Hybrid combinations with B1111 are uniform and shape is of the typical United

States fresh market modern 'Imperator' type.

Breeders' seed of B1111 A and B1111 B will be prorated upon written request before September 1, 2007. When this germplasm contributes to a new cultivar, it is requested that appropriate recognition be given to its source.

Released by USDA, ARS

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