

Association for Breeding Research and Crop Maintenance **Based on Biodynamic Principles**

Breeding Biography of a Biodynamic Variety



Early carrot of Nantaise type

Updated: 15/02/2017

FINE

German Plant Variety Registry Code: MOG 267

Breeder:

Christina HENATSCH

Variety Description:

FINE is an early maturing carrot variety (100-120 days) of the Nantaise type with cylindrical form, slightly flattened shoulders, smooth skin and fine foliage. FINE has a sweet, light aromatic, juicy flavor. The variety is suitable for bunching or wholesale, and can also stand on the field longer at maturity without splitting. It keeps well in storage, although the flavor begins to lose intensity after Christmas. It is suitable for cultivation on light to medium-heavy soils.

Breeding History:

Original seed stock came from Rijk Zwaan company's MONANATA variety. The first selection was made in the autumn of 2003, and was further selected over three generations. Breeding work was carried out at Gut Wulfsdorf, north-east of Hamburg. The location is morainic, with a sandy soil at 20-25 points. The farm has been biodynamically stewarded for 20 years; an independent vegetable breeding operation has been there since 2003, integrated into the extensive vegetable cropping of the farm.

The following characteristics were selected throughout the breeding work:

- Reduction of greening on the shoulders
- Good shoulder formation (the original seed stock had a rather conical collar at the stem insertion)
- Improvement of skin smoothness
- Rounded root tip
- Improvement of inner coloration and flavor



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Each autumn, about 1000 carrot roots were selected from the total stock of the farm (at least 500 m2) based on the above criteria. During the winter (December/January) further selection was carried out for inner coloration and flavor. To achieve this, the lower quarter of the carrots were cut off. Carrots that were too light-colored or deviant, and those with excessively large, or watery cores were selected out. From the remaining carrots, a root slice was taste tested and the most aromatic were then planted for seed (some 150 specimens).

Further propagation in the years 2004, 2006, and 2008 showed continuous improvements of the desired properties. During the registry test at the German Plant Variety Registry in the years 2009 and 2010, the green shoulder coloration was assessed to be better in comparison to MONANATA. FINE received significantly better appraisal in taste tests.

In comparison to the original variety, FINE developed after further cultivations a perceivable strengthening and enhancement in vital- or formative-force quality in the form of a fine light-transmitting and invigorating effect. To improve these formative-forces and flavor, the seeds were treated with sound tones and eurythmic gestures. Those treated showed a notable strengthening of vigor and vital-quality, and a life-enhancing effect, when compared to the untreated control. (A detailed description of the variety development and in particular formative-force enhancement through the aforementioned treatment is available upon request at the Kultursaat Association).

FINE was approved in 2010 after two years of examinations by the German Plant Variety Registry. Maintenance breeding is sustained by the breeder at Gut Wulfsdorf through yearly selection on taste and picture-forming methods of analysis. The Bingenheimer Saatgut AG is responsible, among other things, for the organization of the multiplication and commercialization of sale seed.