

KULTURSAAT e.v.

Association for Breeding Research and Crop Maintenance
Based on Biodynamic Principles

Breeding Biography of a Biodynamic Variety

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**Carrot for fresh marketing,
storage and processing**

RODELIKA

German Plant Variety Registry Code:
MOG 114

Breeder:

Dietrich BAUER

Variety Description:

RODELIKA is a carrot variety with vigorous growth and dark green foliage. The root is smooth-skinned and when ripe, it is blunt, slightly conical with an intense orange-red skin color and uniform inner coloration. Sowing from middle April to beginning of May, it ripens in 140-150 days. It is suitable for industrial cultivation as well as for storage and wholesale marketing. Raised bed cultivation is the best prerequisite for high quality carrots. The yield is medium to high. In the years 2007 and 2008 the total yields at Dottenfelderhof Farm ranged between 650 to 750 dt/ha.

RODELIKA has a strongly characteristic carrot flavor and is especially sweet. It has a notable inner vitality with very positive nutritional characteristics.

References:

Quality tests have always shown top quality, including for high sugar content, low nitrate values and best overall flavor. Among a series of tests using picture-forming methods, Dr. Balzer-Graf has repeatedly ranked the variety as qualitatively superior. In the scope of the research investigation with picture-forming methods and direct formative force study "Comparative quality tests of old and new vegetable varieties for the development of breeding objectives for organic vegetable growing" (FKZ 02OE027) in 2002 and 2003, RODELIKA also showed excellent properties. These results are compiled in, but not limited to, the publication, "The Quality of our Food" of the Kultursaat Association. In the so-called "variety marketing" in the organic vegetable market it has a top ranking.

In the context of a 1998/99 quality trial of the German Plant Variety Registry Department, RODELIKA was characterized to have high quality and good flavor (HEINE 2000). Variety trials under organic culti-

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vation conditions at the University of Kassel (at Witzenhausen) determined that, in addition to outstanding leaf health and good storability, and through picture-forming methods, RODELIKA is excellently rated (FLECK et al 2001).

Direct studies of formative forces indicated a total turnaround from the mineral expression of the initial breed stock to a strongly animated and harmonic variety RODELIKA. The value of the cultivation in biodynamic environments, or in other words, in a self-contained farm organism and the use of the biodynamic preparation is particularly noteworthy.

Breeding History:

RODELIKA was selected out of the variety ROTHILD (HILD family), a cultivar of the ROTE-RIESEN ("Red Giant") type, through breeding work at the Demeter-certified Dottenfelderhof Farm. The decision on one of the several already developed lines in the biodynamic environment took place in 1985. As of 1990, after selection based on morphological characteristics and color, taste testing was also included. Already in the first steps could a distinct taste advantage be stated (PESCHKE 1994).

In a year-long project study over two seasons in the framework of the Dottenfelderhof Farming School, M. Geith 1997/98 determined the relationship between leaf positioning and carrot quality. From 1999 to 2002, these morphological connections were verified and further elaborated in the context of subsequent research at the Persphoneia Institute in Kassel and the Kultursaat Association by A. Weidringer. The goetheanistic-anthroposophical outlook of the plant world, together with the practical experience of the taste selection of carrots, offered many possibilities for systematic selection.

After 17 years of biodynamic cultivation and breeding, the German Plant Variety Registry granted the approval in 1998 of the variety. The maintenance breeding is carried out at Dottenfelderhof Farm. Stock seed is also produced at Dottenfelderhof or by assignment on other Demeter farms. The Bingenheimer Saatgut AG is responsible, among other things, for the organization of the multiplication and commercialization of sale seed.

Literature:

FLECK *et al.* 2001: Samenfeste Sorten oder Hybriden – Anbauvergleich von Möhren unter den Verhältnissen des Ökologischen Landbaus. In Reents, H. J. [Hrsg.]: Beiträge zur 6. Wissenschaftstagung zum Ökologischen Landbau, Freising-Weihenstephan, 253-256.

HEINE, H. 2000: Ergebnisse von Sortenprüfungen mit Dauermöhrensorten. *Gemüse* (9), 15-17.

PESCHKE, J. 1994: Inhaltsstoffe und Anfälligkeit von Möhren im Nacherntestadium unter dem Einfluss von Sorte, Herkunft und Anbaubedingungen. Dissertation Universität Gießen.