

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

Breeding Biography of a Biodynamic Variety



Yello french bean

HELIOS

German Plant Variety Registry Code: **BB 843**

Updated: 15/02/2017

Breeder:

Thomas HEINZE

Variety Description:

HELIOS is a vigorous and robust yellow french bean with black seed. The variety has a medium-long to long, light-yellow, tender, round pods, with a slight curvature on the end point. It is early and high yielding, with an aromatic flavor.

Breeding History:

The breeding work on HELIOS began in 1990 by Thomas Heinze at the biodynamic market garden of the Lebensgemeinschaft Bingenheim ("Life Community" for the handicapped). Specimens of different color of seeds was observed to grow out from the variety MARONA. Although the bean is treated as a self-pollinator, the color variation was probably due to a cross-pollination, since bees and bumble bees were fond of its flowers. Cultivation of these different seed colors (some 15 individual seeds) produced different offspring from the respective seeds.

There were plants with green or yellow pods, and different growth forms and seed colors. In 1992, seed from five of these single plants, determined to be cultivable, were sown and tested. The offspring from three of these plants had green pods like the original variety; among the descendants of one particular plant, there were principally green and some isolated yellow pod variations, and in another, the offspring carried predominantly yellow pods. In the following three years, the progeny of the predominantly yellow podded plant was selected on the basis of these yellow pods and black seeds, until a stable breeding line with 16-18 cm long pods, stronger growth, better health and high yield developed.



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In 1997, the new variety was tested for its suitability and cultivability on various farm establishments before it was registered with the German Plant Variety Registry two years later; it was approved in the year 2001 as a variety with the name HELIOS. Seed multiplication takes place on biodynamic farms; the stock seed is propagated by the maintenance breeding of the breeder himself. The Bingenheimer Saatgut AG is responsible, among other things, for the multiplication and commercialization of the market seed.