

KULTURSAAT e.v.

Association for Breeding Research and Crop Maintenance
Based on Biodynamic Principles

Breeding Biography of a Biodynamic Variety

Updated: 15/02/2017



**Spinach for autumn, winter
and spring cultivation**

Giant Winter/VERDIL

German Plant Variety Registry Code:
SPI 115

Breeder:

Brigitte von WISTINGHAUSEN

Variety Description:

VERDIL is a dioecious variety of spinach, for autumn and until early-season cultivation; it is fast-growing and high-yielding. The leaves are of a lighter green color and form large, full-rosettes with typical, pointed and tapering goosefoot spinach leaves. VERDIL is considered to be delicate and tasty.

Breeding History:

The breeding of this variety took place on Rengoldshausen Farm in Überlingen near Lake Constance, biodynamically farmed since 1932 with Demeter certification. VERDIL came to the farm as an old Swiss variety in the early 80s, through contact with the first professional biodynamic vegetable breeder Ilmar RANDUJA (Switzerland). Since it was so vigorous, healthy and from taste so appealing, as of the late 80s it was bred out from a defined variety form. The objective was to decrease flowering tendency and improve the proportion of seed-bearing plants (female) to pollen-bearing (male). VERDIL belongs to the clearly-defined dioecious Spinach varieties and in comparison to other varieties maintains a 1 to 1 proportion of male to female plants.

A certain type of male plant flowers particularly early. To recognize these plants even earlier, leaves were laid out and compared in every development phase of the plants and selected based on leaf metamorphosis. Through observation it was determined that weather plays a decisive role during the planting phase for the later expression of male plants: under dry and untimely warm weather, the proportion of male plants is higher and by cooler moist weather is the proportion of female plants higher.

The basic type of the later female plants is essentially differentiated from the basic type of the male plants by its rosette form. The rosette form is found to be arranged up to the apex of the plant, while the male plants instead have their flowering stalks clearly separated from the leaf horizon. As the leaf metamorphosis study revealed, male plants do not begin with this distinctive rosette form. So although the male and female plants appear similar, it was attempted through early recognition of the male plants to cull them out. The rosette form found up to the flowering plant was termed the "fruiting type".

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VERDIL was registered by the German Department of Variety Registration in 1992. Since VERDIL correlated with the old variety "Giant Winter" in many important aspects, it was denominated as a stem of this variety. Maintenance breeding of the variety is carried out under biodynamic farming conditions on the Rengoldshausen Seed Farm "Ralzhof" in Salem, a branch of the umbrella Hofgutes Rengoldshausen, by the breeder Vera Becher. The Bingenheimer Saatgut is responsible, among other things, for the multiplication and commercialization of the sale seed.