

GEERT VEENHUIZEN (1857-1930), THE PIONEER OF POTATO BREEDING IN THE NETHERLANDS

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ABSTRACT

Potato breeding proper in the Netherlands started in 1888 at the initiative of GEERT VEENHUIZEN at Sappemeer. He was very successful in breeding new potato varieties and stimulated Dutch farmers to tackle potato breeding.

On November 18, 1957, just 100 years from the day that VEENHUIZEN was born, a memorial meeting was held at Sappemeer. VEENHUIZEN's significance was illustrated and a portrait presented to the Agricultural University.

Reproductions of the portrait and a memoir in higher, secondary and primary agricultural schools will keep alive VEENHUIZEN's significance for agriculture in the Netherlands.

1. INTRODUCTION

On 18 November 1957 the 100th anniversary of the late GEERT VEENHUIZEN was commemorated. It is no doubt worth while to note this celebration in *Euphytica*, the more so as in foreign literature little information is found about this pioneer of potato breeding in the Netherlands.

In some other countries a purposeful potato breeding programme was initiated at an earlier year (4, 5, 6).

2. GEERT VEENHUIZEN, THE PIONEER OF POTATO BREEDING IN THE NETHERLANDS

In a previous article (2) it was stated that also in the Netherlands the potato crop suffered from diseases and that gardeners and nursery men early tried to raise potato plants from true seed in order to obtain more vigorous and higher yielding stocks. No group of professional breeders sprang up, not even when in 1846 the Government imported true seeds of potatoes from Germany and distributed this seed among gardeners and farmers.

Potato breeding proper in the Netherlands started in the Northeast in the Reclaimed Peat Districts of Groningen, a region of intensive cultivation of potatoes for industrial purposes. In proportion as potato growing expanded new varieties were continually imported from abroad (chiefly from Germany), but they often fell short of expectation.

At the initiative of GEERT VEENHUIZEN (Fig. 1, reproduction of the painting), nurseryman and florist at Sappemeer, the local agricultural association laid out a potato variety trial field in 1888 and in the following years, in order to compare the

new varieties with the old ones and also to increase them. The management of this trial field made him take a greater interest in plant breeding.

After reading an article in the horticultural journal *Sempervirens* on the creation of novel *Bromeliaceae* by means of artificial crossing VEENHUIZEN conceived the idea of developing new, productive potato varieties for industrial use (7).

In the course of years VEENHUIZEN introduced many varieties. He was not out to make profit; he loved plant breeding for its own sake.

In table 1 (DE HAAN, 1) a survey is given of the varieties developed by VEENHUIZEN. Starting in 1888, as early as 1892 ten of them were on the market. The year 1893 was a lucky one for VEENHUIZEN. That year he developed the *Eigenheimer*, valued as a potato for human consumption and for the potato meal industry, which expanded in later years and which was also appreciated abroad. His *Thorbecke* dates from 1901.

This variety was for many years the most widely cultivated potato variety for industrial use in the Netherlands. VEENHUIZEN concentrated his efforts on the creation of potatoes for industrial use, but in addition he also succeeded in originating good varieties for human consumption (*Eigenheimer*, *Bravo*, *Rode Star*, etc.), which came to dominate the varietal range in the Netherlands. Agriculture has greatly benefited from his work.

From the table 1, in which the most important varieties have been printed in bold type, it can be concluded that, in general, the time for developing new varieties was surprisingly short when compared with the creation of new cereal varieties or those of leguminous crops. *Bravo* and *Eigenheimer* were introduced after a few years, and this was also the case with *Thorbecke*. It is clear that only a small quantity of seed potatoes could be available, for, assuming a seedling to produce 20 tubers and the rate of increase to be 1:20, at most 8,000 tubers would be available in the third year. When keeping healthy stocks the multiplication takes place at a considerably slower rate.

It is interesting to quote the first description of *Bravo* from the report of the Central Trial Field (Fig. 2) covering the year 1898, since it clearly demonstrates the "fine nose" of VEENHUIZEN.

"No. 11, which was submitted under number 58 the previous year and which we praised at that time already, proved excellent also this year and thus we decided to give it a trial on a larger scale at the trial field "Eureka" in order to distribute it from there into the Reclaimed Peat Districts when it again proved good".

"The variety is one of the finest as concerns foliage; the stems are robust and firm, of moderate height; the leaves are very large and of a particularly yellow-greenish colour. The plants grow rapidly so that the soil is soon covered, the light-blue flowers are conspicuous against the light-green foliage. The tubers are round, many somewhat flattened, the eyes are very shallow. Its taste was excellent at every trial; its colour is intensely yellow, also on the dish, so that, in our opinion, it may become one of the very best varieties for human consumption. It has been named *Bravo* therefore, a real Dutch name".

FIG. 1. REPRODUCTION OF THE PORTRAIT OF GEERT VEENHUIZEN, PRESENTED TO THE AGRICULTURAL UNIVERSITY, WAGENINGEN. THE ORIGINAL PORTRAIT IS PLACED IN THE INSTITUTE OF AGRICULTURAL PLANT BREEDING



GEERT VEENHUIZEN (1857-1930)

TABLE 1. SURVEY OF THE POTATO VARIETIES DEVELOPED BY G. VEENHUIZEN

Name of variety	Seedling of	Introduced	Name of variety	Seedling of	Introduced
Jupiter	1888	1892	Hollandia	1897	1904
Magnus	1888	1892	Hybrida	1897	1904
Chryso	1889	1892	Tempo	1897	1902
Eersteling	1889	1892	Medusa	1898	1903
Excelsa	1889	1892	Model	1898	1902
Lange Reuzen	1889	1892	Animo	1899	1904
Mercurius	1889	1892	Avenir	1899	1904
Orion	1889	1892	Enorm	1899	1908
Triomf	1889	1892	Matador	1899	1902
Vroege witte	1889	1892	Netto	1899	1904
Bella		1893	Prof. Mayer	1899	1904
Alpha	1890	1895	Julia	1901	1904
Eigenheimer	1890	1893	Felix	1902	1906
Guldeling	1890	1895	Flambouw	1902	1910
Noble	1890	1893	Nieuwe Ruige Witte	1902	1905
Standhouder	1890	1893	Orakel	1902	1908
Tuinparel	1890	1893	Orania	1902	1906
Vroege gele	1890	1894	Rendabel	1902	1907
Zilverling	1890	1895	Welkom	1902	1907
Fortuna	1891	1893	Concurrent	1903	1907
Albion	1892	1895	Farina	1903	1910
Eureka	1892	1894	Koh-i-noor	1903	1907
Feronia	1892	1894	Pionier	1903	1912
Frans Drake	1892	1894	Roode Star	1903	1908
Motké	1892	1894	Nieuwe Muizen	1905	1912
Roode Champignon		1894	Splendo	1905	1911
Russina		1894	Franco	1906	1911
Steilstammen	1892	1899	Expres	1908	1913
Tonden	1892	1898	Succes	1908	1913
Zomerrooden	1892	1894	Commandant	1909	1914
Zwartjes	1892	1895	Effect	1909	1919
Ceres	1893	1899	Ideaal	1909	1918
Erica	1893	1899	Preferent	1909	1917
Hibernia	1893	1898	Albion	1911	1927
Prima	1893	1895	Kampioen	1911	1918
Union	1893	1899	Present	1911	1918
Witte Ruigen	1893	1895	Excellent	1916	1922
Ballon	1894	1898	Roode Industrie	1916	1920
Paul Kruger	1894	1900	Element	1917	1924
Vesta	1894	1898	Monopool	1917	1922
Bravo	1896	1899	Robijn	1917	1926
Oranje	1896	1899	Energie	1918	1924
Thorbecke	1896	1900	Jubileum	1923	1927
Uniforma	1896	1899	Populair	1923	1928
Zaailing No 2	1896		Ultimus	1925	1935
Gruno		1901	Souvenir	1926	1932
Landskroon		1901			

It appears from this description that the best seedlings were planted on a multiplication field in the third or fourth year. In later years, too, when the V.B.B. (Farmers



FIG. 2. THE CENTRAL TRIAL FIELD AT SAPPEMEER. MR B. E. VEENHUIZEN (RIGHT) OBSERVES THE SECOND YEAR POTATO SEEDLINGS

Association in the Reclaimed Peat Districts) undertook the management of the Central Trial Field, the link with VEENHUIZEN remained, which was very important in the time preceding the issue of a List of Varieties. The V.B.B. distributed only the best seedlings to agricultural societies in order to give the seedlings a trial.

The Groningen People's Almanac of 1931 contains the biography (3) of GEERT VEENHUIZEN, who died at Sappemeer on 30 January 1930. I had the privilege to participate in the visits which Prof. dr. TINE TAMMES liked to pay to the Central Trial Field at Sappemeer (Fig. 3). VEENHUIZEN knew how to captivate his visitors in an admirable way. He was small, cheerful and active. He loved breeding work. When posterity will contemplate the development of potato breeding in the Netherlands it will be difficult to realize that the great Dutch breeder created for the Netherlands a whole range of home-bred varieties. KOK (3) characterizes him so strikingly in the following words: "He who had ever the pleasure of being taken round by VEENHUIZEN through his seedlings and selections, could not help being greatly impressed by the great enthusiasm for his profession. The visit might be a pleasure for the visitor, the accompaniment of people who were really interested in his work was as great a joy to him. One could see it in his critical search among his plants, one could hear it in his homely and witty remarks. Hardly anybody could withdraw from the charm of such idealism in this simple man. The untiring worker at last found rest. But the remembrance of this first Dutch potato breeder will live on, as long as potatoes will be grown in this country".



FIG. 3. MISS PROF. DR. TINE TAMMES, LATE PROFESSOR OF GENETICS AT GRONINGEN UNIVERSITY AND STUDENTS VISITED G. VEENHUIZEN AT SAPPEMEER ON 22 JULY 1927

3. THE CELEBRATION OF THE CENTENARY MEMORIAL DAY

On November 18, 1957, a celebration was held at Sappemeer (prov. of Groningen), in honour of GEERT VEENHUIZEN to mark the 100th anniversary of his birth.

The chairman of the memorial committee, Mr. R. PANMAN, welcomed a large number of people who were in some way associated with agriculture in the Netherlands and the VEENHUIZEN family. Not only potato breeders and research workers, but also farmers, potato meal industrials, managers of cooperative meal factories, wholesale and retail dealers and leaders of agricultural organizations were present.

After an introductory speech the chairman presented to the Chancellor of the Agricultural University, Wageningen, a portrait of G. VEENHUIZEN (Fig. 1), painted by the Groningen painter JOHAN DIJKSTRA. In his address of thanks Prof. ir. W. DE JONG pointed out that VEENHUIZEN has set an example for science where results can only be obtained by love of work.

VEENHUIZEN's significance for the potato meal industry was outlined by Mr. J. GROENEVELD, while Mr. C. J. VAN ZAALEN voiced the feelings of the potato dealers in a speech.

PROF. dr. J. C. DORST, Director of the Institute of Agricultural Plant Breeding, Wageningen, in some personal reminiscences described how as a student he had made the acquaintance of VEENHUIZEN and that he thought it likely that this meeting had an influence on his choice of study. He pictured various traits of VEENHUIZEN's character.

He said that when lecturing to his students he would point out to them that VEENHUIZEN's work could be carried out only by taking initiative, dogged perseverance, love of work, belief in a great cause and by confidence in his own abilities. Tribute was paid to the memory of Mrs. VEENHUIZEN in Prof. DORST's words when he voiced gratefulness for her loyal support of her husband's work.

In VEENHUIZEN's lifetime his varieties were grown extensively, but also in the years, following his death his varieties covered more than half of the area under potatoes in the Netherlands. In 1956 the variety Eigenheimer (1893) still covered as much as 12 %, Ultimus 2 %, Rode Star 1 %, of the 144,200 ha under potatoes in the Netherlands; 1,600 ha Eigenheimer, 313 ha Ultimus and 290 ha Rode Star were submitted for inspection in 1957.

Several of VEENHUIZEN's potato varieties were also valued abroad. The variety Eigenheimer was exported to other countries as a potato for human consumption and was also grown in Belgium, Luxemburg, Italy and Brasil.

The variety Paul Kruger was grown in England under the name of President and in Scotland as Scottish Farmer, but it also became known in Sweden, Russia, and U.S.A. Model was extensively grown in Poland for many years, Thorbecke was grown in England, Rode Star in Belgium, France and Switzerland.

VEENHUIZEN's visitor's book contains the names of many visitors from abroad and he himself visited Belgium, France, Germany, Austria, Tschechoslovakia, Yugoslavia and Italy.

In thanking the authorities for their recollections of his father's contributions, one of the sons briefly described some remarkable facts from VEENHUIZEN's life and another son, the potato breeder B. E. VEENHUIZEN, thanked all those present who in some way or another had contributed to the dignified remembrance which was so greatly appreciated by his family and relations.

A reproduction of the painting and also the richly illustrated memoir (8) *Geert Veenhuizen, 18 November 1857-30 January 1930*, covering 32 pages has been presented to higher, secondary and primary agricultural schools.

SAMENVATTING

Geert Veenhuizen (1857-1930), de pionier van de aardappelveredeling in Nederland

Op initiatief van GEERT VEENHUIZEN te Sappemeer werd in 1888 de grondslag gelegd voor de doelbewuste aardappelveredeling in Nederland. Hij had zeer veel succes met het kweken van nieuwe aardappelrassen. Hij stimuleerde door zijn kweekarbeid anderen in Nederland de aardappelveredeling aan te vatten.

Op 18 november 1957, de dag dat honderd jaar geleden VEENHUIZEN werd geboren, had te Sappemeer een herdenkingsbijeenkomst plaats. De betekenis van GEERT VEEN-

GEERT VEENHUIZEN (1857–1930)

HUIZEN werd toen belicht terwijl zijn geschilderd portret aangeboden werd aan de Landbouwhogeschool te Wageningen.

Reproducties van het portret en een gedenkschrift zullen tevens in de hogere, middelbare en lagere landbouwscholen de herinnering levendig houden aan de grote betekenis, die VEENHUIZEN heeft gehad voor de Nederlandse landbouw.

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