

Tschermak-Seysenegg, E. 1942. "Über Bastarde zwischen Fisolé (Phaseolus vulgaris L.) und Feuerbone (Phaseolus multiflorus Lam.) und ihre eventuelle praktische Verwertbarkeit. Züchter 14:153-164.

FUNGICIDE TEST FOR CONTROL OF WHITE MOLD OF FIELD BEAN

J. R. Steadman & E. D. Kerr
University of Nebraska, Lincoln, Nebraska, U.S.A.

White mold (Sclerotinia sclerotiorum) is widely distributed in the irrigated field bean areas of western Nebraska. We have estimated that an overall bean yield loss of at least 12 percent was caused by this fungus in Nebraska in 1970 with losses as high as 47 percent in some fields. In 1971 four fungicides were tested for control of white mold.

The test plot was located in an area of a grower's field of GN #1140 beans. This particular field was chosen because of its past history of white mold infection. The four fungicides (Botran, Bravo, Benlate and Mertect) were applied with sun oil 11E four weeks after planting (first bloom) and again 6 weeks after planting (full bloom).

Infection in the plot was initially detected 9 weeks after planting and increased to an average of 45 percent by harvest. Although coverage of the plants with spray appeared thorough and preceded initial visual evidence of infection, only a slight reduction in disease (20%) was observed with one of the compounds (Benlate) and no significant differences in yield were evident. Since the chemicals tested have been shown to be successful to varying degrees in controlling white mold of green beans, no explanation for lack of control in our test is evident at this time.

ROOT ROT RESISTANCE TRIALS OF PLANT INTRODUCTION AND BREEDING LINES AT SCOTTSBLUFF, NEBRASKA - 1971

J. R. Steadman
University of Nebraska, Lincoln, Nebraska, U.S.A.

All lines were planted at the Scotts Bluff Experiment Station on June 3, 1971. The trial was located in an area which had bean croppings the two preceding seasons and a high incidence of root rot (primarily caused by Fusarium solani f. sp. phaseoli). Row length varied from 8 to 15 ft. depending on the quantity of seed available; however, plant density differences were minimized. Standard dry bean varieties were randomized within the plot for

comparative purposes. Evaluation of maturity, type of growth, and root rot severity were made on September 9, 1971.

Of the 50 lines planted, the 20 which are considered worthy of further evaluation are listed along with the standard varieties below:

Identifying No.	Origin	Type of Growth	Maturity	Root Rot Rating ¹
224-739	Mexico	Viny	No flowers	0.5 ³ Internal ²
224-714	"	Large, Bush	Mature	0.5
226-856	Spain	Semi-viny	Green pods	0.7
224-730	Mexico	Bush	Nearly mature	0.7
201-378	"	Large, Viny	Mature	0.7 Internal
224-740	"	Viny	Nearly mature	0.5
201-341	"	"	Few flowers	0.5
203-958	"	"	Flowering	0.5 Internal
255-960	Italy	Semi-viny	Mature	0.7
224-742	Mexico	Viny	No flowers	0.7 Internal
224-737	"	"	" "	0.7 Internal
226-875	Spain	"	Mature	0.7
269-531	W. Pakistan	"	"	0.5
269-207	Peru	"	Few flowers	0.7
269-210	Peru	Large, viny	No flowers	0.5 Internal
269-206	Mexico	Viny	No flowers	0.5
205-211	Turkey	Large, viny	Young pods	0.5
226-871	Ukraine	Viny	Mature	0.7
70-BC-599 (F ₃)	Prosser, Wash.	Bush	Mature	0.7
70-BC-430 (F ₃)	Prosser, Wash.	"	Nearly mature	0.5
GN "Jules"	Nebraska	Semi-viny	Mature	2.0
GN U1#59	Idaho	Bush	Mature	2.0
GN Nebr. #1	Nebraska	Semi-viny	Mature	2.0
Pinto U1#111	Idaho	Bush	Mature	2.0

¹Rating based on 0.0 = healthy root; 5.0 = completely rotted root.

²Internal refers to reddish lesions only evident when root or hypocotyl is cut open.

³Mean of ratings of ten plants.