

Compleat. lub! of .pore or Bolerot1al &eraiDatlon.Ho.ever, the l...t artected were -r. aoDilltorme .porea where •• tho.e of .!! ros.Wl .ere the moat .euit1,...1D thi- respect. fhe. iaulatioD etfect of the •• e%WI.t... fo1UUU to _e muoh ao pronounoed in root e%UClate. otGiza- 3 (8usceptible) 0 'liver whUe that of conte.er.(~a81.tUlt) 1Dh1blted apo se1"lL1DatloDof -, .:rosewa u4 L .mon11to~ and Bolerot al aeratnatloD of-K. phaseolin ••and .r-. .oDil1orme in 0 or 01&&) and SW188- BI&DQ outivar. 'but decreased 0.". ot Cont.ndN (Relli.tant) .•In ~h1.respeot, aaDunt. ot ortho.1bT4~1 phenolshwere mostlyhigher 1. the pft.el1o. ., . mon111to!"IH. !ollalaa1Do ao1d~a- Perceu'tac8' 0••n D•• 001&ll1'-en" 1D and llbere •• Dot n1.11108b."•• e. the. a4 the 41.toraae perloda varied cord.iDa to the tim. of .tona.(ODe, .ix aDcl t •• 1Te ao hll) and fro. one Tariety '0another. l.olat10n fr . QlStre.tea •• u of dlftenutcult1v:ar. N.ulted in i olat1Dg!. •• ll1t.otwa, b ou.porum..!•f... -rO.8ua, -A. tlavua, -J.. niger, J.. tenui_, Penioillia 'PP•and Rh1Z0pU8 ap ••'nate4 •• ds lftereD11 'aao cul1:1vara 41d DOt7:181dP•• ll1tectua a:tt ona _nth when •• 48 of Giu - 3 - out1.U' •• re treated wi h Qu1.Do1ata V 4X or Bavi.tiD 50,.•• 1D11arl'1-Sw1.s- Blanco CODtelUlre •• 4a trea1:edw11:11Boteo 60. In this reap thi. tuDgU8 •• Dot 1801a1:.4atter t••1•• onth. 8to e fro •••• d8 at Gl~ 3 treatedw1th Hdoail + Cu++ or tee 60, thOs. of Swi88- BlaDO trea-. ted with Bavistin 50, 11 0ll11 + 011++, Botec "" aDdConteuntreated with Bayin1D 50, Qu.1Jlolat. V 4:J ADd Woall +Cu++.•!-157-1!•• ult8 Ind1cat,d that treated se.d. of diUereDtbean cult1""~8_ with ant of the fi.,... fungicid •• d1dnot .7181d "l. qqaporLill. '~1. indicate. that !.... 0,Jy8POrua Was. - .•ery 1ll.IUlIt!.,... ",0 :tUD&~o1dal'treat •• n"ts and 1011.& .tor8&8periods.T. roseum was n,t 180lated whan S••d8 of G1za-)l were treated with BotrF 75, Bwia.- BILDO •• d8 with Bav1a-l ' .t1n50. Isolation o~l Penicillium 8PP.~~ flavua • .!D1ger, and Rh1zopus ap. was n~t affected b7 d1ft.rent •• 4 "1""8&t-. *188n1;8a,.nd was not con,1st8nt &lll DO S8D8ral trend 1Dtheir'1s01at1011 was abe erV1ed, Tbi8.83 b" becauae the.. tuDgiare acat17 aaprophytestnat1D& •• 8d8 11ih.ither BaTi.tin 5O-rBot" ~-GOor ~1)tran .75 erally resll1ted -in increasing -thenuaber of survi.,,al pl 1;8 •• pecial17 at'tier Qll8 aonth .torag.period.v1v!Jl& plantsspect, the highest DUmber ot ~Conti.adre outl~.,,ar which ••••• tobe 1.88 affect.d bl 8t rag. coDdit1aJl than the o"he~' out1var8.8 df dUfenDt b.aD out1varll.Glza- 3,.Swi•• - BlaDe aDd Conte re t w1th dU:re2WJl'li fUD&101d.. 1.e.,Bav1.tiD 50 (JIBC). 01at.' 4 X aDd tecto :6«fBi) Howedthat th. fuq,ic1d.. we ablllorlae41D81de the p%'ldDat1D&•• 48 tor -tour hre. by dipping th•• loditt.-rent tunaic1daJicultiv81" resulted in gel"lll11&t1p,d~. 1D ditferent pari. ot ••e4-1b1tioD index was hl&ber forother two fungicide.,60 (fBZ). In oase of BaT1atin50Dre8.lD& 8e.48 ot Giaa-•••ds aDd per.1ated tor1Dae. In thi. re&ard.BaT1.tiD 50 (MBC) compQu1.Dolate V 4 Jt and Teet(DC) 1Dh1b1tioD 1Ddex • h1per tor -M. phaseolina thaD1. aonil1forae. Aa for • phaseolina, apicot1l and 1.aY.8oroot1ledoD8 showed hi er inhibition 1Dd.Z8~ Qompared wit.the other part. of seed1 !fbi. indicat. that th... fuD-&101de. aOTed 878t.m1Cal'y upward. in bean •••dlings wheD-applied •• a •••4 treatm nt.S••dliq. (7 4Q8 old) of Giu-3 cu):!t!yan"" lettipped· tor 7 dq81n 4i ferel1'OODOeDtrat1ou of the twofuna1c1d •• BaYietiD 50 (a) aDd Quinola". Y 4:l ahoweddifference. to the a.oun a of tuD&101de. absorbed dur1D&. this period. Inhibition index for BaTi.tiD 50 (JIBe) .••alloh :JUgherth8ll that to QuiDolate V 4 x. It... al.ob1gher 1D oue ot-M. ph eal1na thall -P. lIOD1litm...-dUteNd areat17 110001"4of t'uDa1c1d.. adclcd to the .01.1to the ~101d... it. oODOeutra1i1on- J9-and part" o~ the a•• dl • In 'tibia rega:rd, 1nh1bition" iDdex w•• h1gh_~r for Ba 1st1D 50 (60) than the other twofUngioide. Qu1Dolate v~ 4 X and Tecto 60 (TBZ).lah1bition inde% ~ro. the b1pootyl increased with1Doreaaiq theconoentr tiOD of Be,v1a11n 50. Ho•• ver, 1Jloase of QuiDolate V 4 Xt inhibition index was"zero tormoat parts of seedlings ith the exception of t~ root "at250 and 500 ppm. This ieate that Quinolate V 4 X .saab80rbed ill roots only case ot high OODC8utratiua•.lclcd1q Tecto 60 (BZ) to 80U resuJ.ted hUgh iDhib1t1oDindex' a tor 'li root t coty1.dolUl. !hi. 11icl1oatedthat this fungicide was ab80rbed and transported' an4aooUlllulated 111th. ootyl dona.10- Bio88sq stud! iii oho1red that there .88 DOresidualeffeotfrom pods co 1ect.4 fro. bean plants grown tromprevioual, treated seeds with Baviat1n 50 (JIBC). 'hi. indioat.that the tUD&ic1d •• broken-down aDd Dot "tranBlo-0'oated to the uw p~due d •• d8.11- BeaD ultiYars reaction to 1Df'eot10n or n81.tanoewas te.ted in greenhouse ua1D&iDte.ted be"t-lllo •• wlth each;tuqu .1JJ&l7 or their 0 biDat1_. baul t. u_d olearlythat bean cult1yar8 d1ft. d in their reaction and Conte.nlcultivarwBS the least usceptible to T. r08eum and P.moniliform. while Glza-) was the least 8U8ceptibleto -M. phaseolina, In this re peot, T. roseum

caused the high percentage of pre-emergence damping-off with the P. m. Di. . . , - . . . 11 to me
c. Used the high percentage of damping-off in "However, the number of healthy plants
after the post-emergence evaluation was obtained when the seeds were planted in 8011 infested with f.
rosaeum. 12- Treating seeds with fungicides showed that there was specificity between fungicides and
the different cultivars as regards controlling damping-off caused by either T. roseum or P. moniliformis
or K. phaseolina. In this regard, the result indicates that Contendré cultivar was more resistant to infection by
the three fungi and also the least susceptible to fungal damping-off having at the same time less "Spore to
seed treatment"! a. D.: thus could be recommended for growing in order to obtain the highest
crop. Plant and potting soil and dry matter (DM) were also affected by fungal infection and
fungal treatment (1). - Comparing the effect of DM in seed size in the same cultivar
showed clearly that ungraded or the large size seed the least percentage of damping-off and
consequently, the high percentage of healthy plant survival. In contrast with the small
seed size treatments with fungicides indicated differences in the emergence of both hypogeal,
and plant length differences with seed size and possibly due to phytotoxic effect of the fungicide
and the difference of the surface of bean seed as the area of its surface. In more detail, the amount of
fungicide on the seed differed contrastingly with the size of seed and this contrast with the
increase of plant growth with the smaller size of seed. The results indicate that 14- Bedouin and total sugar
of plants from the non-diseased (1) that showed differences (80) for a (and -) (susceptible) and s. u. Blanco (moderately
resistant) the "Contendré" (resistant). However, the amount of root and total
sugar when planted in 8011. Treatments with Baytard-50 or Boteo 60 resulted in a
1. Jan. 1D the "DM of DM and total sugars compared with the control. High amounts of
total sugars were also obtained from roots of plants grown from seed treated with Boteo
60. 15- Free phenols were higher in roots from plants of resistant (resistant cultivar) compared with
other cultivars. Whether planted in infested or non-infested soil. DM of conjugated phenols
differed also regard the difference. In bean cultivars, and higher incidence of infection with
T. roseum and P. moniliformis for Giza -3 cultivar and P. moniliformis for Contendré cultivar. In
this respect, the amount of ortho-phenol was higher for the resistant Contendré cultivar
compared with the other cultivars. Also, soil infested with fungi resulted in an increase in the
phenols in the two cultivars Giza -3 and SW1.8- Blanc and decreased them in Contendré 16- total
amino acids were higher in the roots of Giza -3 (cultivar) and equal for the other
two cultivars. Soil infestation with one of the tested fungi, exerts a clearest effect on the
amino acids in roots of O. -) while resulted in a decrease in the amino acids in the
roots of Giza -3 and Contendré cultivars while 1D Bw188-Blanc. The effect differed with the different fungicides 17- Under
field conditions, treating seeds with DM of the three rates or application of the 10% resulted in a
10% increase in the survival of plants compared with the untreated seeds.
Baytard-50, Quinolate V.4 X 1U11~ Boteo 60 at rate 2 g/l kg seed were superior in this respect when
Bوتران 75. was active in this respect (1) at the rate of 1 liter. Generally, healthy plants
and 11.14 of the large cultivar 1J1Oreaaec1 by increasing the rate of application of 80 me
tuna1c1des. Also, the amount of DM was 8% higher for the higher rates of application () g/l kg
seed),