

EFFECT OF DIFFERENT POTATO VIRUS Y ISOLATES IN THE REAC
TION OF Capsicum annuum L. TO Phytophthora capsici LEON.

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The Capsicum L. breeding program at the Centro Nacional de Pesquisa de Hortaliças/EMBRAPA, Brazil, has been searching for multiple disease resistance in pepper. In order to detect presence or absence of interactions between pepper pathogens inoculated simultaneously or sequentially, 25-day-old "Yolo Wonder" plants, sown under screenhouse conditions, were inoculated with 4 potato virus Y virulent isolates. Prior studies had shown differences in aggressiveness among these PVY isolates (UnB - 32, UnB - 1, VB and BA). The PVY inoculum, multiplied in Nicotiana tabacum L. "TNN" (20 days at 20°C), was diluted to 1:100 (weight : volume). For the inoculation of P. capsici, 40 days after sowing, 3 ml of the zoospore suspension were distributed at the base of each stem. Two concentrations of Phytophthora capsici Leon., 10^3 and 10^4 zoospores/ml, were used.

In both P. capsici tested concentrations, there was no difference between PVY isolates, in relation to their effect in plant reaction to P. capsici (Figure). Interaction between the pathogens was not detected, since P. capsici disease index did not differ in plants pre-inoculated, or not, with PVY.

In this issue of Phytophthora Newsletter, the authors also present data on PVY and Xanthomonas campestris pv. vesicatoria (Doidge) Dye inoculated sequentially or simultaneously with P. capsici in single pepper plants.

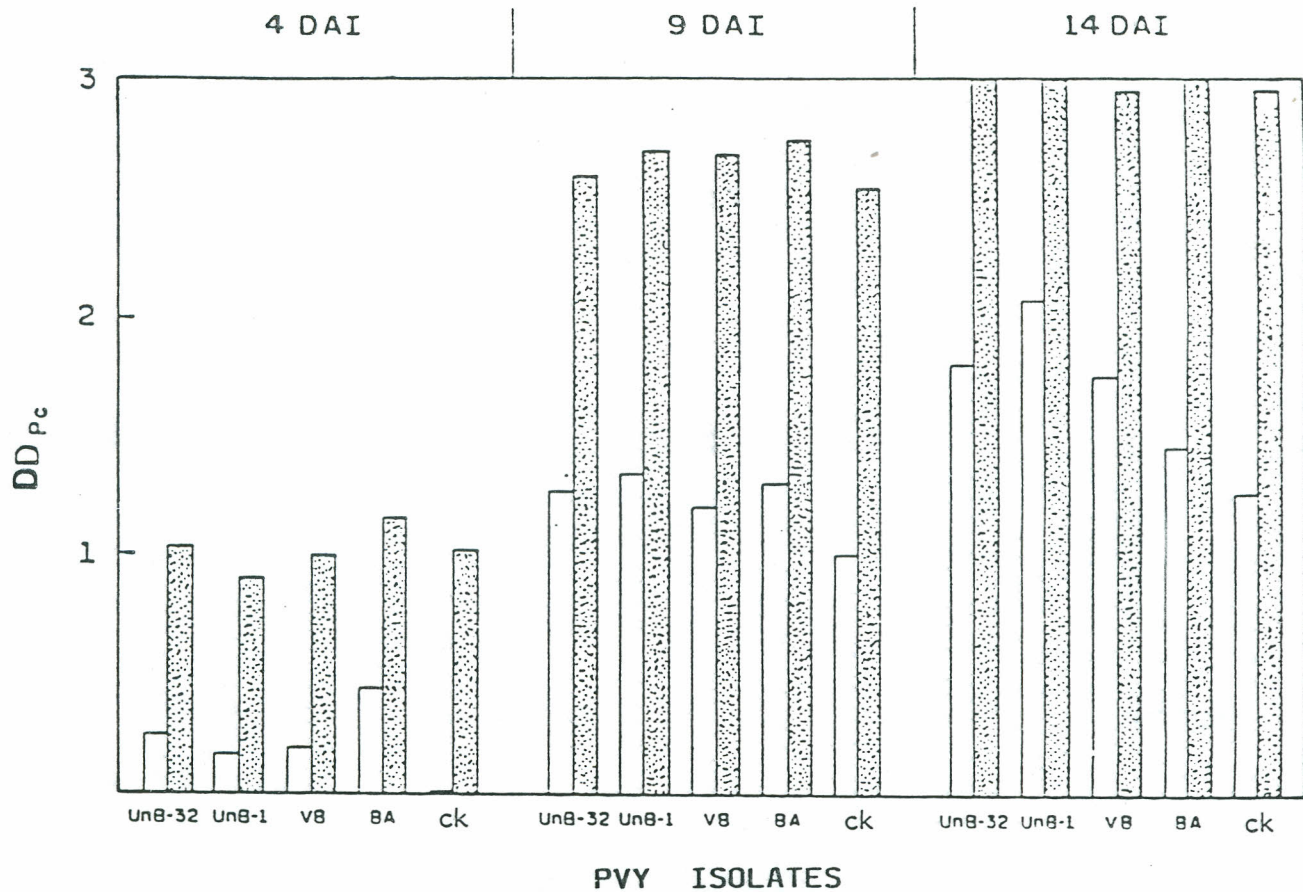


Figure: Effect of different potato virus Y isolates (PVY) in the disease index caused by Phytophthora capsici (Pc) in pepper (Capsicum annuum)

DI_{Pc} = disease index cause by Pc: 0 - lack of symptoms; 1-discoloration at the stem base, without plant wilt; 2-wilted plant; 3- dead plant. There was no significant difference among PVY isolates in both Pc tested concentrations, according to Tukey's test at P = 5%.

□ = Pc inoculation at 10³ zoospores/ml

▨ = Pc inoculation at 10⁴ zoospores/ml

DAI = days after Pc inoculation