

The Behaviour of Some Sweet Pepper Lines Tested in the Comparative Plots for Evaluation

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SUMMARY

During the 2009-2010 period in the frame of the experimental field of RDIVFG VIDRA, Romania, five long pepper lines type Kapia created at the Plant Breeding Department of the Institute were investigated under comparative plots for evaluation using as a control variety the Romanian cultivar Cosmin. The germoplasm resources used in the frame of green pepper breeding process in order obtain of this material consisted in native and/or local populations as well as varieties and hybrids. As breeding methods bulk positive selection yearly resumed in the valuable populations, intra-specific pollination among valuable varieties and lines followed by the pedigree selection and bulk positive selection yearly resumed in the advanced populations were used (Stoenescu *et al.*, 1992; Sbarciog, 2003). The variants were set up in randomized blocks placed in four repetitions (Ceapoiu, 1968; Nicolaie *et al.*, 1994). During the growing season several observations and determination were performed according to U.P.O.V. file. Comparing the data regarding the total yield of the long pepper lines under investigation (average of the 2009 - 2010 period) could be notice that all five lines assured a higher total yield comparing to the control variety Cosmin. The values for total yield ranged between 34.7 t/ha at the line L118/6 and 39.5 t/ ha to the line L 580/5 by comparison with control variety Cosmin that gave 29.8 t/ha. The results emphasized that the best behavior had the lines L 580/5 by comparison with the control variety, yielding 9-11 fruits per plant of large size (95 -115g) and red color. The differences of the yield among long pepper lines type Kapia comparing with the Romanian variety Cosmin, were computed as statistically sure, they being characterized as significant.

Keywords: breeding, cultivar, pepper, germoplasm, positive selection

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