

“Vidra 9”, a New Variety of Bell Pepper, Obtained at RDIVFG Vidra

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Abstract. Researches were made during the period 2004-2010 at ICDLF Vidra as part of the research topic and aimed at obtaining new pepper cultivars (hybrid types), with superior productions as compared to the genotypes existing in the national assortment, resistant to the biotic and abiotic factors. The lines of pepper were studied in the comparative plots for their behaviour (2008-2010). The variants were set up in randomized blocks placed in four replication and during the growing season several observations and determination were performed according to U.P.O.V. file. As control the green pepper variety Export was used. The results' analysis showed that all lines of green pepper studied in the comparative plots for their behaviour, using as control variety the cultivar Export, achieved superior productions as compared to control variety (29.2 t/ha. Among the green pepper lines, line L 12 especially remarked itself by the conic fruit, being slightly mucronate and coloured as white-yellow at technological maturity and intense red at physiological maturity. L12 was remarked from all lines, being tested in ISTIS network and registered under the name “Vidra 9”.

Keywords: bell pepper, variety, lines, fruits

Introduction The pepper fruits (*Capsicum annuum* L.) may be consumed fresh and they are of great importance for their high nourishing value, as well as for the fact that vitamins are fully used by the human body (Șuța, 1983). The pepper fruits (*Capsicum annuum* L.) are used for preparing a wide range of foods, they can be easily processed in the preservation industry or can be used for preparing the ground pepper. Some pepper species and varieties (*Capsicum annuum* L.) have a special decoration value and can be cultivated in pots, at home. The high nourishing value of the pepper fruits is given by the rich content in sugars and vitamins. The ascorbic acid is present in high quantities in the pepper fruits, being between 100 mg % g fresh matter (technological maturity) and 200-300 mg% g dry matter for fruits having reached the physiological maturity. (Bodea and Cioara, 1984; Pintilie, 1998; Sbîrciog 2003). The fruits chemical composition is very complex. The C vitamin content depends on the fruits' maturity level, colour and size (Somos, 1984). The cultivation conditions influence the C vitamin content, this being higher for the field cultures, as compared to greenhouse ones.

Aims and objectives. Researches were made during the period 2004-2010 at RDIVFG Vidra as part of the research topic and aimed at obtaining new pepper cultivars with superior productions as compared to the genotypes existing in the national assortment, resistant to the biotic and abiotic factors.

Materials and methods. For obtaining the new pepper lines, the germplasm resources used in the frame of sweet pepper breeding process in order obtain of this material consisted in native and /or local populations as well as varieties and hybrids brought from the international assortment. The variants were set up in randomized blocks placed in four replication and during the growing season several observations and determination were performed according to U.P.O.V. file.

As breeding methods bulk positive selection yearly resumed in the valuable populations, intraspecific pollination among valuable varieties and lines followed by the

pedigree selection and bulk positive selection yearly resumed in the advanced populations were used, while selecting new genotypes.

Results and Discussion. By comparison of the data regarding the total yield of the green pepper lines under investigation (average of the 2004-2010 period) one could notice that all the lines assured a higher total yield to the control variety Export. The results' analysis showed that all lines of pepper studied in the comparative plots for their behaviour, using as a control variety the cultivar Export, achieved superior productions as compared to control variety. Several observations and morphological determinations were carried out aiming the following characteristics: early yield, total yield, number of fruits per plant, their shape and color. The results emphasized that the best behaviour had the line L 12 by comparison with the control variety Export.

The line L 12 especially remarked itself by the conic fruit, yielding 10-12 fruits per plant of large size (120-130g).being slightly mucronate and coloured as white-yellow at technological maturity and intense red at physiological maturity. The plant's height is of 0.74 cm, with rich light-green foliage. Average production is of 47.9 t/ha. Line L12 was tested in ISTIS network and registered under the name "Vidra 9".

Conclusion

The study performed on bell pepper lines revealed that all of them had production superior to control variety, the productions differences being statistically assured. L12 was remarked from all lines, being tested in ISTIS network and registered under the name "Vidra 9".

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