Characterization of sunflower inbred lines, paternal forms, created under ecological conditions typical of the Agricultural Research and Development Station of Podu-Iloaiei

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Allogamous plants, pre-eminently heterozygous, react greatly to repeated self-pollination, showing the well-known effects of inbreeding, such as vitality diminution, expressed by the decrease in value of different quantitative traits, implicitely of the yield, variability decrease, respectively, the increase in time of plant uniformity, while genes pass to homozygous state, and unbinding of the self-fertilized biological material into component biotypes which are unlimited in number, as a result of dominant and recessive gene passage to homozygous state and their regrouping in all the possible combinations. On this last effect of the own pollen pollination of allogamous plants was based the creation of inbred lines, as parental forms of the hybrids, which could express in F1, with highest intensity, the reproductive, somatical and adapting heterosis (1, 2).