

## **Induction of parthenogenetic haploid embryos by irradiated pollen in cucumber**

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*Nowadays, production of haploid plants for obtaining inbred lines and producing hybrid seeds is a very efficient method in breeding programs. In this study, it was tried to produce haploid plants of cucumber by using a technique consists of gynogenesis inducing in situ by irradiated pollen and then rescue of haploid embryos by in vitro culture. So, two greenhouse hybrid cultivars (RZ, Rubah) and one field hybrid cultivar (Daminus) were used as maternal genotype and one local pollinated cultivar was used as pollen source. Pollen grains collected in 4 times and exposed to gamma radiation at 300 Gy. Then daily pollination were performed with irradiated pollens. These pollens caused fruit set with empty seeds; only some of seeds involved undifferentiated tissues or rarely induced haploid embryos. These embryos were excised under laminar air flow cabinet and cultured in E20 special medium (Sauton 1988). The embryos were in different stages of differentiation and then some of them developed to small plants.*