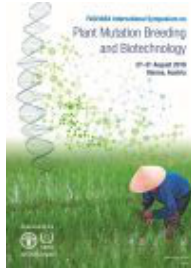


FAO/IAEA International Symposium on Plant Mutation Breeding and Biotechnology



Contribution ID: 206

Type: Poster

THE INDUCTION OF POLYPLOIDS IN 'IRIS SARI SCHOTT EX BAKER' VIA IN VITRO TECHNIQUES

Iris sari SCHOTT ex BAKER is an endemic plant which has a natural distribution area in Turkey. The plant, which has attractive flowers, is also known as "Ana kurtkulađı, Bahar çiçeđi". Tetraploids were induced successfully from in vitro plantlets of *I. sari* by treating micro-bulbs with colchicine. The colchicine doses tested were: 0.1 and 0.5 % during 2, 4 and 6 hours for each dose. Ploidy levels could be easily determined by flow cytometry. From a total of 45 surviving plantlets, 3 tetraploids were detected. The most efficient condition for inducing tetraploids seemed to be the treatment with 0.1 % colchicine for 4 hours. Comparison of the survival rate of the controls and tetraploid plants in vitro, showed significant differences. Additionally, the induced tetraploids in *I. sari* also presented larger stomata and decrease in stomata density, compared to control plantlets.

Country or International Organization

REPUBLIC OF TURKEY MINISTRY OF FOOD, AGRICULTURE AND LIVESTOCK

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Track Classification: Mutation breeding for ornamental and vegetatively propagated crops