

## **Karyological investigation of Iranian Leek *A.ampeloprasum***

**J.Panahandeh<sup>1</sup> and Y.M.Agayev<sup>2</sup>**

**1- Dept. of Horticulture, Faculty of Agriculture, Tabriz Univ.**

**2- Dept. of Crop Production and Plant Breeding, Faculty of Agriculture, Tabriz Univ.**

There are more the 600 species of *Allium* distributed over the temperate parts of the Northern hemisphere. Seven species of them are edible. In Iran after the onion and garlic, Iranian Leek is the most important cultivated species from the *Allium* genera. In spite of significance of this vegetable, in persian Literature it is introduced as an anonymous species (*Allium sp.*). The present study was carried out with regards to few available refernces about this plant. For karyological investigation the seeds of Iranian Leek were germinated and after the pre-treatment with plpha bromo naftalin fixated in levitsky solution and for preparation of microscopic slides the root tips, according to Agayev's method were stained and squashed. The results indicated that Iranian leek is Tetraploid  $2_n = 4_n = 32$ . From the 85 samples that were investigated one case was aneopliod, 14 case with accessory or B chromosomes and one diplpoid  $2_n = 2_x = 16$  and 3 case with chromosomal fusion was observed, The chromosoms of 5 and 8 were acrocentric and satelited and the remainder were meta or sub metacentric.

cuttings were placed in a sandy culture medium.

Result of this investigation showed that using of sand culture medium is a *suitable and efficient medium for rooting of the plant materials*

The highest rooting percentage was obtained with sprout cuttings which was not significantly different at 1% level compared to stem cutting. Differences between both methods were significant at 1% level with single-node. Hastening in rooting was severely affected by method of propagation, so that, in sprout cutting rooting was performed 4.27 days which was significantly different with single-node at level of 1% probability level.

In sprout cutting, rooting was not affected by concentration of 250mg l<sup>-1</sup> NAA. In all three propagation methods, NAA increased the number of roots which was significant with control treatment at 1% of probability level. Rooting percentage, rooting time and number of roots were not significantly affected by cultivar, However, cultivar significantly affected dry and fresh weight of roots.