Dry fig production problems and solutions under rainfed conditions in Iran

M. Rahemi, M. Gholami and A. Rostami

Department of Horticulture, College of Agriculture, Shiraz University, Shiraz. Iran.

The common fig (*Ficus carica* L.) belongs to the moraceae. The fig tree is inigneous to Persia, Asia Minor and Syria. The top three exporters of dried figs in the world are Turkey, Iran and Greece. In the world market there is an increasing stable demand for dried figs. Lacks of rain in recent years make a serious damage to the production of fig under rainfed condition in Iran. Preliminary experiments were conducted to determine the effects of water stress on fig cultivars 'Deyme Dehdez', 'Sabz Estahban', 'Siah' and 'Shahanjir'. Plants growing under greenhouse conditions were subjected to drought by withholding irrigation for 14 days and recovery was studied for 7 days. Stem water potential, relative was content leaf mass area for drought tolerance was measured. The results suggested that 'DeymeDehdez' and 'Sabz Estahban' are more drought tolerant than 'Siah' and 'Shahanjir'. In another experiment drought tolerance of caprifig genotypes and their offsprings of controlled hybridizations were evaluated. The caprifig genotypes 'Khoramai', 'Shah Anjir', 'Pouz Donbali' and 'Dandeh Sepid' were used in controlled hybridizations with three female fig cultivars namely 'Siah', 'Sabz', 'ShahAnjir' and the twelve offsprings produced were used in the experiments. Caprifig genotypes and offsprings plants were subjected to drought by withholding irrigation for 15 days and recovery was studied for 10 days. Based on the previous measured criteria, 'Shah Anjir' and 'Khormaei' caprifigs were the most drought tolerant genotypes. Offsprings 1(Siah×Pouzdonbali), 7(ShahAnji'r×Khormaei), 8(Sabz×Khormaei) and 9(Siah×ShahAnjir) were found to be the most drought tolerant hybrids. We concluded that offsprings, 7, 8 and 9 can be used as rootstocks and Sabz cultivar as scion cultivar under rainfed condition.

Key words: Fig cultivar, Caprifig, Controlled hybridization, Offspring, Drought stress.