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# THE MORPHOLOGIC AND PHENOLOGICAL CHARACTERISTICS OF SOME CARNATION (Dianthus L.) TAXONS NATURALLY FOUND IN TURKEY

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### S20-P43:

#### SALT TOLERANCE DURING GERMINATION, SEEDLING AND ADULT PLANT OF WILD TOMATO

**Juan Enrique Rodríguez-Pérez\***, Mariela Anelí Hernández Coutiño, Jaime Sahagún-Castellanos, Juan Martínez-Solís

Departamento de Fitotecnia, Universidad Autónoma Chapingo, CP 56230, Mexico

[\\*erodriguezx@yahoo.com.mx](mailto:*erodriguezx@yahoo.com.mx)

Salt tolerance in commercial varieties of tomatoes is low, reason why the study of wild materials in search of salt resistance is of great importance for breeding. The aim of this research was to identify native tomato collections of Mexico tolerant to salt during the stages of germination, seedling and adult plant. Seeds of 96 collections of native tomato were germinated in a chamber (25°C and 80% of relative humidity) in two concentrations of NaCl (0 and 70 mM). Germination percentage, germination rate index and dry matter production were determined. The salt tolerance evaluation in seedling stage included the 29 best material which were sown in polypropylene trays filled with peat moss and irrigated with nutritive solution with 0 and 70 mM of NaCl. Thirty days after sowing, the number of seedling and their length, dry matter accumulation, and visual scale of damage were assessed. The test in adult stage, carried out under greenhouse conditions with a hydroponic system, included 13 tolerant collections cultivated under two saline concentrations (0 and 80 mM) from 20 days after transplant. In the three initial clusters, total soluble solids, intensity of leaf green color, plant height, fruit yield, number of fruits, and concentrations of the aerial part of N, Ca, Mg and K, were quantified. By means of multivariate analyses 12 out of the evaluated collections showed tolerance to salt. Of these, four showed good performance in the three phenological stages (germination, seedling and adult plant) since showed higher germination, emergence, dry matter production; as well as in adult plant, major concentration of N, K, Mg and Ca under the saline condition. This situation is possible since during the processes of adaptation or domestication, the plants were exposed to the salinity conditions in the soil.

Keywords: *Solanum lycopersicum* L., Selection, nutritional content

### S20-P44:

#### THE MORPHOLOGIC AND PHENOLOGICAL CHARACTERISTICS OF SOME CARNATION (*Dianthus* L.) TAXONS NATURALLY FOUND IN TURKEY

**Ayşe Serpil Kaya\***, Fatma Uysal, Burçin Cingay, M. Uğur Kahraman

The cultivation of the species located in natural vegetation of Turkey and researching the usage opportunities in ornamental plants sector are very important for both conservation of the natural plant biodiversity and contribution to the economy of the country. In this study, it was given information about the phenological and morphological properties of the *Dianthus* species collected within the "Variety Development Studies of Some *Cephalaria* (*Cephalaria* Schrad. ex Roem. & Schult.), Sage (*Salvia* L.) and Carnation (*Dianthus* L.) Taxons Naturally Found in Turkey for Using as Outdoor Ornamental Plant" named TAGEM Research and Development Project. In this study, plant length, branching, flowering time, flower size, petal shape and petal colour of the carnation (*Dianthus* sp.) species were observed.

Keywords: Ornamental plants, Natural species, *Dianthus* sp., Carnation

### S20-P45:

#### SELECTION OF HEAT-TOLERANT INTERSPECIFIC DIANTHUS FOR BEDDING PLANTS

**Der-Ming Yeh\***, Zhi-Wei Huang

Dept Horticulture & Landscape Architecture, No. 1 Sec 4 Roosevelt Rd, Taipei 106, Chinese Taipei

[\\*dmyeh@ntu.edu.tw](mailto:*dmyeh@ntu.edu.tw)

