

CYTOLOGICAL AND AGRONOMIC CHARACTERS OF A HYBRID: HELIANTHUS ANNUUS L. X  
HELIANTHUS DEBILIS NUTT.

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The genus *Helianthus* comprises 67 specie, divided into 4 sections and among these there are several subspecies having a very different habit in relation to various areas of growth, too (HEISER C.B.Jr., *Agronomy* 19: 31-52, 1978). Lately the cultivated sunflower belonging to *H.annuus* subsp. *Lenticularis* L. introduced largely in our surroundings like a food plant has been the subject of repeated attempts of selection in order to obtain good agronomic and technological characters. But unfortunately some important characters of original plant, such as resistance to diseases, drought and insects, were lost. The wild species, endowed by nature with a wide genetic variability, has been utilized recently as a source of positive characters for the cultivated sunflower and so used in interspecific hybridization (SKORIC D. and VANNOZZI G.P., *Inter.Symp.Sunflower*: 37-73, Bari 1984). In the Institute of Agronomy - Pisa University - has been developing a research work for a few years in order to obtain interspecific crosses of cultivated sunflower x wild species of *Helianthus* (VANNOZZI G.P. and PAOLINI R., *Workshop on Sunflower*: 105-142, Atene 1982; ---, *Agric. Ital.* 5/6/ 169-192, 1984). In this paper we relate the observations about a group of three accessions: *Helianthus annuus* L. (Line HA 89 Mt), *Helianthus debilis* Nutt. subsp. *debilis* Nutt (wild specie) and F<sub>1</sub> hybrid. Every of them have been tested in relation to weither agronomic or caryological aspect. The caryological test of root and shoot apices has shown the perseverance of chromosome number 2n=34 in the parents and in hybrid progeny, moreover the wild parent presents smaller chromosomes. Among the most significative agronomic characters we have considered: transplantation-flowering period, flowering height and number of branches/plant. The wild parent reveals: a longer flowering period, a greater number of branches and a smaller height than cultivated specie. F<sub>1</sub> hybrid presents intermediate characters between two parents with the exception of the height, which always results definitely superior.