

THE ACTUAL FLORA OF CULTIVATED PLANTS: THE RESULT OF AUTOCHTHONOUS DEVELOPMENTS AND FOREIGN INTRODUCTIONS

P. Hanelt

**Institute of Plant Genetics and Crop Plant Research,
Corrensstraße 3, Gatersleben, D-06466, Germany**

RESUMEN: La flora de las plantas cultivadas de una región específica se puede analizar conforme a los mismos principios utilizados para las floras silvestres (número de táxones, composición taxonómica, diferenciación en elementos corológicos). Una clasificación básica de la flora cultivada se da entre elementos autóctonos y alóctonos, es decir, desde la domesticación de las especies indígenas o desde la introducción de cultivos foráneos. Los elementos alóctonos pueden ser subdivididos según su origen geográfico (geoelementos), y los diferentes crono-elementos indican el tiempo de establecimiento como plantas cultivadas en esa región (arqueófitos, paleófitos y neófitos). Los neófitos americanos desempeñan un importante papel en las floras cultivadas del Viejo Continente.

PALABRAS CLAVE: Flora cultivada, historia, agricultura.

SUMMARY : The flora of cultivated plants of a specific region can be analyzed according to the same principles as it is done usually for the wild floras (number of taxa, taxonomic composition, differentiation into elements). A basic classification of a cultivated flora is into autochthonous and allochthonous elements, that means either from domestication of indigenous species or from introduction of foreign cultigens. The allochthonous elements can be subdivided according to their geographic origin (geoelements) and the different chrono-elements indicate the time of establishment as crop plants within that region (archaeophytic, palaeophytic and neophytic elements). American neophytic elements play an important role in all Old World cultivated floras.

KEY WORDS: Cultivated flora, history, agriculture.

INTRODUCTION

Floras of cultivated plants (FCPs) can be made objects of scientific studies according to the same principles as it is done usually for wild floras and FCPs of different regions can be compared and analyzed botanically in the same manner as the floras of wild plants. Up till now however that has been done very inadequately and therefore even simple basic data for FCPs are mostly lacking.

Species number: Only for a few FCPs a realistic estimation of their species number is known: The total number of cultivated species of the world, including forestry taxa, but excluding ornamentals, had been calculated as more than 6.000 (SCHULTZE-MOTEL 1966, 1986). The total

number of cultivated species including ornamentals has been estimated for Europe as 12.000 (WALTERS & al. 1986) and for Germany as 2.700 (JÄGER 1992), see Table 1 for some further data. It is obvious from these data that in countries or regions with a rather depauperate wild flora the FCPs in the broad sense can be equal or even surpass the wild ones by the species number. In floristically rich regions, e.g. in the tropics or in Mediterranean countries, the proportions are shifted significantly in favour of the wild taxa.

Taxonomic composition: Apparently the spectrum of taxonomic families comprising the