

**XXVII International Horticultural Congress
and Exhibition, Page 139 (August 2006)**

S05-O-29 (11:40-12:00)

***Celtis julianae* 'Aurea'-A New Golden Leaf Cultivar**

Liangjun Zhao^{1*}, Haizi Hu¹, Xuan Huang¹, Donglin Zhang², and Zhimin Lu³

¹Ornamental Horticultural and Landscape Architecture, China Agricultural University, Beijing, 100094, China

²Plant, Soil and Environmental Sciences, University of Maine, Orono, USA

³Ningbo Forestry Bureau, Ningbo, China

Celtis julianae 'Aurea' is a new cultivar selected from seedlings of Julian hackberry (*C. julianae*) in China, the morphological and physiological characters were studied for four years. The leafcolor of 'Aurea' presents bright yellow (151A-B) (By RHS Color Chart) during spring and summer and becomes yellowish green (144A) in late autumn, but Julian Hackberry always shows deep green (137A-B). The leaf area of 'Aurea' is 79cm², smaller than the common. 'Aurea' shows lower growth rate, its height of two-years seedlings was 273cm, while the common was 327cm. Additionally, 'Aurea' shows short internodes, denser branches and more beautiful compact canopy. The total chlorophyll contents of Julian Hackberry is four times than that of 'Aurea', but the carotenoid contents are the similar. Although the biomass of Julian Hackberry is higher than 'Aurea', the significant differences of the net photosynthesis rate is not ob-

served. In addition, 'Aurea' can be propagated by grafting or tissue culture, the perfect stock is Julian Hackberry. Recently, a large scale production of young plants were made in our commercial nursery. Julian Hackberry is a deciduous tree. It naturally distributes in the center to south of China, and appears in USDA hardiness zones 7b through 10a and is cultivated in Zone 5. The adaptability of 'Aurea' is similar with Julian Hackberry, it can be cultivated in warm temperate area to sub-tropical area.

Key words: Julian hackberry, *Celtis julianae* 'Aurea', leaf color, chlorophyll, propagation

*Corresponding author: haizihu@126.com