

## **Establishing Heat Tolerance Marker of *Allium fistulosum* L. - Selection Criteria of Horticultural Traits<sup>1</sup>**

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### **Abstract**

Two heat tolerant varieties, 'Fu-tsun' and 'Hsinchuang', and two heat sensitive varieties of green onion (*Allium fistulosum* L.), 'Lanyang #1', and 'Yilan #2', were used for establishing selection criteria of horticultural traits associated with heat tolerance. Field evaluations of plant weight per hill and per stem, tiller number, diameter and length of false-stem, plant width, leaf number, plant height, green leaf length, and leaf diameter were conducted in the spring and summer crops in 2001 and 2002.

Comparison of spring and summer crops, amounts of plant weight per hill and tiller number increased in the heat tolerant varieties were higher than those in the heat sensitive varieties. Diameter of false-stem were higher in the heat tolerant than those in the heat sensitive varieties for both of spring and summer crops. We suggest that plant weight per hill, tiller number and diameter of false-stem can be used as selection criteria for heat tolerance in green onion.

(Keywords: *Allium fistulosum* L., Heat tolerance, Marker, Spring crop, Summer crop, Weight per hill, Tiller number, Plant width, Diameter of false-stem, Length of false-stem, Leaf number, Plant height, Diameter of green leaf.)

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