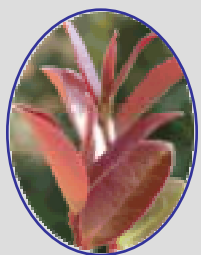


Selecting Ornamental Cultivars from Teaoil Camellia Breeding



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Introductions

Camellia is a popular ornamental plant worldwide. Since the US National Arboretum released more than a dozen cold hardy ornamental camellia cultivars with teaoil camellia (*Camellia oleifera* Abel) in their parentage, market demand for better cold hardy camellia cultivars has increased in US and many other countries. In China, much breeding work of teaoil camellia had been conducted to improve its oil quality and yield in Guangxi, Hunan, Jiangxi, Zhejiang and other seven provinces in the past 60 years. A total of more than 600 clones had been evaluated and only 200 elite cultivars were selected for oil production. Some of these clones and cultivars had very attractive ornamental features and should have great potential for ornamental production.

Materials and Methods

Selection for ornamental cultivars from eight teaoil camellia germplasm collection sites in China had been focused on its habit; foliage colors; flower sizes, colors, and abundance; and fruit size, colors and shapes. four

cultivars with better ornamental potential have been selected for introduction. These plants should be grew well in USDA cold hardiness zones 6-9.



Fig. 3: *C. oleifera* 'Changlin'

Selected Cultivars

'Ninglin' (Fig. 1): Columnar habit, usually one meter wide and three meters tall. The fruits are red with pubescences and the new growth is red.

'Hunan Dome' (Fig. 2): Rounded habit and the canopy is $2 \times 2 \text{ m}^2$ from the ground. The distinguishing features are rounded habit with green new growth and capsules.

'Changlin' (Fig. 3): A fastigiated shrub, to $1.5 \times 3 \text{ m}^2$ in five years. The unique features are red fruits that have four distinguished "buttons" at apex.

'Hongqiu' (Fig. 4): Open canopy is $2 \times 2.5 \text{ m}^2$ in four years. It is different than other plants by its maroon fruits and long narrow leaves.



Fig. 1: *C. o.* 'Ninglin'.



Fig. 2: *C. oleifera* 'Hunan Dome'.

Discussion

Many popular ornamental plants can be derived from other crop commodities, such as ornamental peaches derived from fruit peach breeding. Teaoil camellia has been intensively bred for edible oil production. Some of new clones may have great potential for ornamental

production. New teaoil camellia cultivars should play important roles in the field of ornamental horticulture, especially as a source of cold hardy camellia cultivars.



Fig. 4: *C. oleifera* 'Hongqiu'.

Reference

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