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Jinlingzi: A New *Styrax faberi* Perk. Cultivar

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Styrax faberi Perk.(Styracaceae), a deciduous shrub, is mainly distributed on slopes, in shady and moist woods of valleys and ravines in south of the Yangtze River, China (Tong et al. 2020). *S. faberi* has a nice shape, blooming from spring to early summer (Huang et al. 2003). Its flowers contain 14 types of terpene compounds (Xia et al. 2023), with good bacteriostatic and air purification effects; leaves can be used for hemostasis and muscle swelling, and its root can also be used to treat epigastric pain. Thus, it possesses high medicinal value (Wu et al. 2020).

Before 2023, there were few domestic and international reports on cultivars of *S. faberi* (Ding et al. 2024). A new cultivar, Jinlingzi, jointly selected from *S. faberi* nursery by Nanjing Forestry University and Jinling Institute of Technology, was granted a patent by the State Forestry and Grassland Administration (SFGA) of China (Authorization No. 20230471). This new cultivar enriches the germplasm resources of *Styrax* and has great economic value and application prospects (Matthew and Kimberly 2022).

Origin

Jinlingzi is a new cultivar of *S. faberi* mutated under the species. In mid-Sep 2011, seeds were collected from a sample tree in a natural population of *S. faberi* in Qiyun Mountain (29°49′13.5″N, 118°02′44.5″E), Xiuning County, Anhui, China. From late Sep 2011 to Mar 2013, the seeds were sown in batches after low-temperature stratification and sand storage. In 2016, plants with characteristics such as vivid yellow (RHS 9A) young expanding leaves, brilliant yellow green (RHS 154B) fully expanded leaf, and subleathery leaves were found in flowering seedlings. The colors were determined according to the Royal Horticultural Society (2015) Color Chart. After continuous cultivation and observation selection from 2016 to 2019, branches were collected from plants with stable traits. More than 30 asexual seedlings were propagated from hardwood cuttings in the spring from 2019 to 2021, and the cuttings of this clone showed consistent and stable traits through observation and comparison. Because of its distinctive characteristics, this new cultivar was named 'Jinlingzi' and officially authorized by SFGA.

Description

Compared with the original *S. faberi* (Table 1), 'Jinlingzi' differs in the color of the young expanding and fully expanded leaves, the texture of the leaves, the degree of depression of the leaf veins, the size of the leaf margin serrations, flower size, calyx, and pedicel color (Fig. 1A). The identifying characteristics of 'Jinlingzi' are as follows.

Habit and branching: Shrubs 1 to 2 m tall; branchlets slender, densely stellate villose. Mature branches are terete, brownish orange (Fig. 1B).

Leaf blade: Leaves alternate, subleathery, veins obviously sunken on upper surface, elliptic, obovate or elliptic-lanceolate, 4 to 11 cm long, 3 to 3.5 cm wide (Fig. 1E), apically sharply pointed or acuminate, base broadly cuneate or subrounded, margins awn-shaped coarse serrations, petiole 1 to 2 mm long, sparsely brown to gray stellate pubescent to glabrescent (Fig. 1G). Unlike *S. faberi* (Huang and Grimes 2003), its young expanding leaves exhibit a better vivid yellow (RHS 9A) coloration (Fig. 1C), transitioning to brilliant yellow green (RHS 154B) upon being fully expanded (Fig. 1F).

Flowering: Racemes terminal, three to five-flowered, axillary; stellate pubescent; flowers white, 0.8 to 1.2 cm; calyx cup-like and its color is strong yellow green (RHS 144B) to strong yellow (RHS N144B); color of pedicel is strong yellow green (RHS N144C) (Fig. 1J); corolla lobes membranous, lanceolate or oblong, 4 to 12 mm long, 2 to 3 mm wide, outside densely white stellate pubescent (Fig. 1J). Blooms from early April to May.

Cultivation Technology and Application

'Jinlingzi' is cultivated from live seedlings of its original species *S. faberi* and could be cultivated in both subtropical and certain warm temperate zones. It is sun-loving and thrives in slopes; ravines; and moist, well-drained soils, demonstrating high adaptability. Propagated mainly by cuttings in spring and fall (both twig and hard cuttings), the rooting survival rate of 'Jinlingzi' can exceed 80%. Spring cuttings (8 to 10 cm) can reach 15 to 20 cm by the end of the year and 40 to 60 cm long next year. There is no special requirement for the cultivation techniques, and its cultivation is like that of conventional popular seedlings (such as *Styrax dasyanthus* Perk.) (Huang et al. 2012). Thus, 'Jinlingzi' could serve as an excellent bonsai material and also be suitable for ornamental applications in gardens, landscaping purposes.

Availability

'Jinlingzi' is jointly owned by Nanjing Forestry University and Jinling Institute of Technology, which are both located in Nanjing, China. For inquiries about the research or request for 'Jinlingzi', please contact Xiaogang Xu (xiaogang.xu@njfu.edu.cn).

Table 1. Comparison of morphological characters between the original *S. faberi* and 'Jinlingzi'.

Characteristics	Original *S. faberi*	'Jinlingzi'
Young expanding leaf color	Moderate reddish orange (RHS 178C)	Vivid yellow (RHS 9A)
Fully expanded leaf color	Vivid yellowish green (RHS 140A)	Brilliant yellow green (RHS 154B)
Leaf texture	Papery	Subleathery
Veins	Slightly sunken	Obviously sunken
Margin	Finely serrated	Awn-shaped coarse serrated
Calyx color	Light yellow green (RHS 144D) to light green (RHS 132D)	Strong yellow green (RHS 144B) to strong yellow (RHS N144B)
Pedicel color	Light green (RHS 132D)	Strong yellow green (RHS N144C)
Corolla diameter	1.2–1.5 cm	0.8–1.2 cm

RHS = Royal Horticultural Society (2015).

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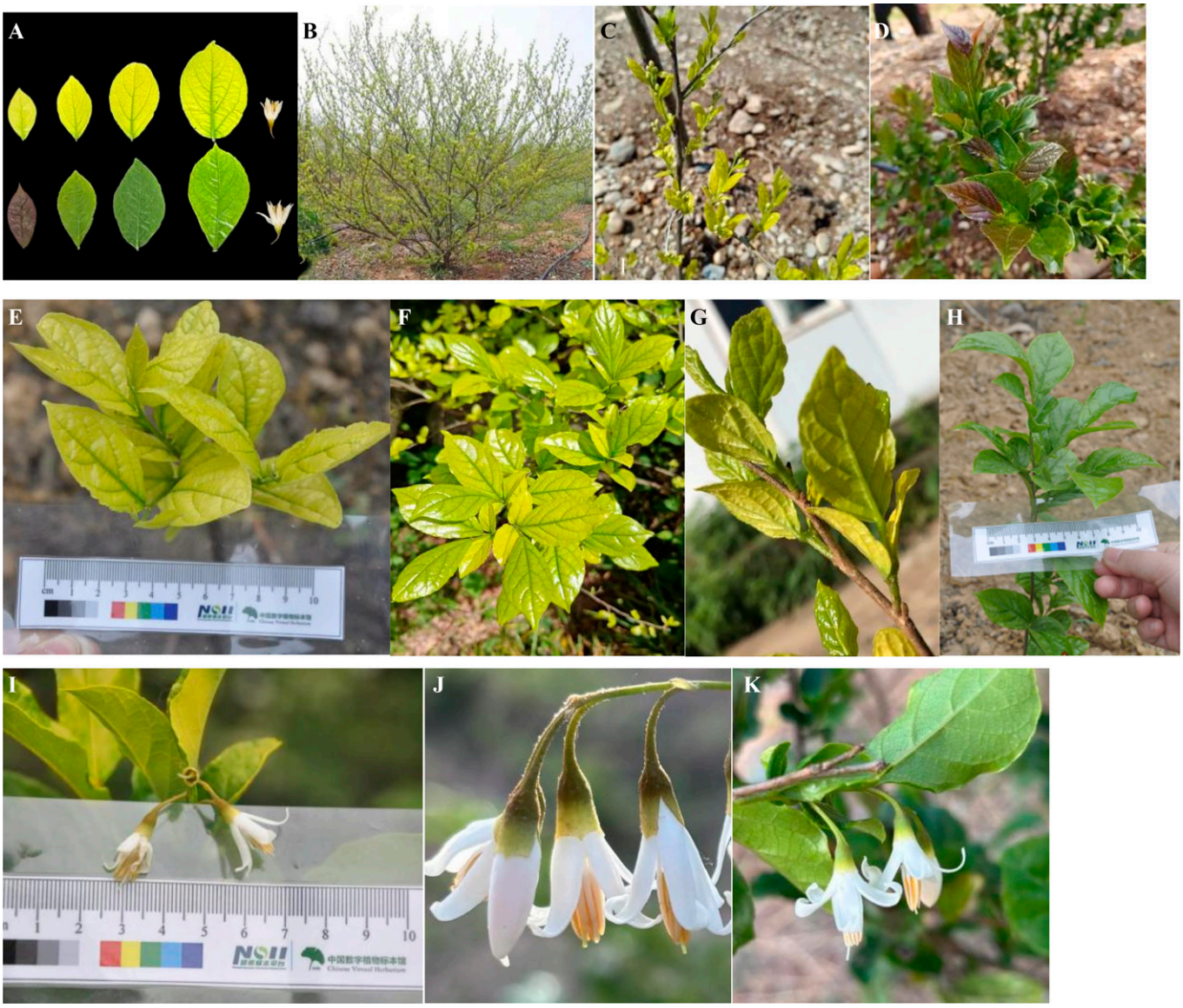

Fig. 1. (**A**) Comparison of leaves and flowers of 'Jinlingzi' and original *S. faberi*. (**B**) Entire shape of 'Jinlingzi'. (**C**, **D**) Comparison of young expanding leaf characteristics between 'Jinlingzi' and original *S. faberi*. (**E–H**) Comparison of fully expanded leaf characteristics between 'Jinlingzi' and original *S. faberi*. (**I–K**) Comparison of flower characteristics between 'Jinlingzi' and original *S. faberi*.

References Cited

Ding Y-M, Wu M-H, Eric B, Sun X, Liu Y, Guo X-H, Wei S-L, Ma S-C, Zhao Z-Z. 2024. Study on changes of *Styrax* varieties. Zhongguo Zhong yao za zhi. 49(6):1690–1698. https://doi.org/10.19540/j.cnki.cjcmm.20231208.101.

Huang Q-L, Zheng Q-R, Rong J-T, Zhuo M-X, Guan X-H. 2012. Selective cutting technology of natural broad-leaved timber forests in the mid-subtropical region of Fujian province, China. List of target tree species based on tree species characteristics [In Chinese]. J Mtn Sci. (02): 180–185. https://doi.org/10.3969/j.issn.1008-2786.2012.02.007.

Huang S-M, Grimes J-W. 2003. Styracaceae. In: Wu Z-Y, Raven P-H& Hong D-Y (Eds.) Flora of China, Vol. 15 (Styracaceae), p 119. Science Press, Beijing; Missouri Botanic Garden Press, St. Louis, MO, USA.

Huang Y-L, Fritsch P-W, Shi S-H. 2003. A revision of the imbricate group of *Styrax* series C*yrta* (Styracaceae) in Asia. Ann Missouri Botanical Garden. 90(4):491–553. https://doi.org/10.2307/3298541.

Matthew S-L, Kimberly S. 2022. Genome sizes, ploidy levels, and base compositions of *Styrax* species and cultivars. HortScience. 57(3):478–484. https://doi.org/10.21273/HORTSCI16294-21.

Royal Horticultural Society. 2015. RHS colour chart (6th ed). Royal Horticultural Society, London, UK.

Tong L-L, Xu X-G, Wang Y-B, Zhang Y-Q, Zhao Z-X. 2020. The complete chloroplast genome of *Styrax faberi* Perk. (Styracaceae). Mitochondrial DNA B Resour. 5(1):98–99. https://doi.org/10.1080/23802359.2019.1698351.

Wu Q-K, Cao Y-Y, Zhao X, Zhang Z-H, Yu F-Y, Guy R-D. 2020. A comparative study of seed reserve accumulation in five *Styrax* species with potential for biofuel production. Trees Structure Function. 34(4):891–902. https://doi.org/10.1007/s00468-020-01968-x.

Xia D-D, Han X-Y, Zhang Y, Zhang N. 2023. Chemical constituents and their biological activities from genus *Styrax*. Pharmaceuticals. 16(7):1043. https://doi.org/10.3390/ph16071043.