

观赏桃新品种鄢红的选育

史喜兵¹, 焦雪辉¹, 岳长平^{2*}, 申潇潇¹, 乔雨轩¹

(¹郑州市农业科技研究院, 郑州 450005; ²鄢陵县东华种植农民专业合作社, 河南鄢陵 461200)

摘要: 鄢红是以嫣红早花桃为母本、早甜桃为父本进行杂交, 从其杂交后代中选育出的观赏桃新品种。树势中等, 树姿半开张, 枝条长直, 向阳面红色、背光面绿色; 节间中等长度, 平均长 2.7 cm; 以长枝着花为主, 单枝着花数平均 48 朵; 成花容易, 花芽数中多; 花蔷薇型, 重瓣, 平均花径 4.2 cm, 平均花瓣数 29 片, 中层花瓣长 1.46 cm, 宽 1.22 cm, 卵形; 花红色; 有香味; 雌蕊 1~2 枚, 几乎等长于雄蕊; 花药橘红色或浅褐色; 萼片 2 轮, 10 片。在河南省许昌地区, 3 月 1 日左右现蕾, 始花期 3 月 5 日左右, 盛花期 3 月 10—30 日, 末花期 4 月初, 开花持续时间 28 d 左右。果面有长茸毛, 底色绿白色, 盖色为浅红色, 椭圆形, 果个大, 平均质量 70 g 左右, 最大可达 120 g。耐旱, 耐寒, 在郑州地区露地栽植可安全越冬, 适应范围广, 抗逆性强。需冷量较低, 在满足需冷量 300~600 h 的地区均可栽植。

关键词: 观赏桃; 新品种; 鄢红; 早花

中图分类号: S662.1

文献标志码: A

文章编号: 1009-9980(2023)11-2486-04

Breeding report of a new ornamental peach cultivar Yanhong

SHI Xibing¹, JIAO Xuehui¹, YUE Changping^{2*}, SHEN Xiaoxiao¹, QIAO Yuxuan¹

(¹Zhengzhou Agricultural Science and Technology Research Institute, Zhengzhou 450005, Henan, China; ²Yanling Donghua Planting Farmers' Professional Cooperative, Yanling 461200, Henan, China)

Abstract: Yanhong is a new ornamental peach cultivar developed by a crossbreeding with Yanhongzaohua peach as the female parent and Zaotian peach as the male parent. It was initially selected in 2013 for its bright colors and very early flowering time. Through artificial hybridization pollination, 50 hybrid seeds were got. In March 2015, after flowering of 30 seedlings, excellent individual plants with specific performance were found. The initial flowering period of this individual plant was around March 5th, 12 days earlier than the mother parent Yanhongzaohua. The flowers were red and fragrant, with high ornamental value. Subsequently, peach was used as the rootstock for grafting and propagation. In 2016, after flowering of grafted seedlings, the budding stage, initial flowering stage, peak flowering stage, and final flowering stage was observed, the performance of flowers, leaves, fruits and other characteristics were recorded, and flower diameter, internode length and fruit size were measured. Through comparison, it was found that its traits were stable and consistent with the performance of the mother plant. After regional adaptability testing at three sites (including Xuchang, Zhengzhou and Luoyang) over five years from 2016 to 2020, it was finally selected in 2021. The tree is of moderate vigor, with a semi-open posture and straight branches. The internodes are of moderate size, with an average length of 2.7 cm. The flowers usually grow on long branches, with an average of 48 flowers per branch. It is easy to initiate flowers, with moderate number of flower buds. The flower is plum-blossom shaped, and has double petal, with an average diameter of 4.2 cm and an average number of 29 petals. The middle petal is 1.46 cm long and 1.22 cm wide, with an ovate shape. The flower is red and sweet with 10 pieces of sepals. There are 1~2 pistils, which have almost the same length as stamens. The anther is light brown

收稿日期: 2023-06-12 接受日期: 2023-07-27

基金项目: 中原学者工作站项目(ZYGZZ2022073)

作者简介: 史喜兵, 男, 助理研究员, 硕士, 主要从事园林植物育种及栽培技术研究。Tel: 0371-67883781, E-mail: madary@163.com

*通信作者 Author for correspondence. E-mail: 3511319300@qq.com

in color. In Xuchang of Henan province, buds appear on March 1st, with the initial flowering period on March 5th, the peak flowering period from March 10th to 30th, and the final flowering period in early April. The flowering stage lasts for about 28 days. The fruit has long hair, dual color and oval shape, with an average weight of about 70 g and a maximum of 120 g. It is resistant to drought, cold and adversity. It has wide adaptability. It is suitable for planting in areas where the chilling requirement of 300–600 hours could be met. Grafting methods is used for propagation. Hard branch grafting can be used in early spring and bud grafting should be carried out before June 10th, using peach as the rootstock. It is suitable for planting at a space of 2 m × 3 m or 2 m × 4 m. In the early stage of pruning, the main focus is on training tree shape, while in the later stage, the vigorous growth is controlled to promote flower bud differentiation. Before flower bud differentiation, watering can be combined with applying phosphorus and potassium fertilizers to improve the quality and quantity of flower buds. During the period of flower bud expansion, the lime sulfur mixture should be sprayed to reduce the damage by aphids, scale insects and some fungi.

Key words: Ornamental peach; New cultivar; Yanhong; Early flowering

桃(*Prunus persica*)隶属蔷薇科(Rosaceae)李属(*Prunus* L.),原产于我国,已有4000多年的栽培历史^[1],发源于中国华北、西北地区的甘肃和陕西,生长于600~2000 m的高原地带^[2],世界各地均有栽培,全世界约有桃品种3000多个,我国有1000多个品种^[3]。依果树品质及花、叶的观赏特性,可将桃分为果桃和观赏桃两大类,其中观赏桃是一种古老的具有中国文化特色的树种,具有花色繁多、枝繁叶茂等特点,是我国主要的观赏树种之一,也是重要的早春观花树种^[4]。20世纪,日本、美国、匈牙利等国家相继对各种桃种质资源进行品种鉴定,筛选出金美人、桃花仙子等品种。1985年Yoshia^[5]培育出红色的菊花桃,是常规粉色菊花桃的芽变品种。我国观赏桃的育种开始于20世纪70年代,北京市农林科学院以寿星桃、白凤和早红2号油桃为原始亲本,经过多代育种,筛选出了一批花朵和果实性状较理想的优系^[6]。中国农业科学院郑州果树研究所利用白凤与红寿星的杂交后代2-7自交,育成果实可食用、抗南方根结线虫的观赏桃新品种满天红^[7];以迎春为母本、白花山碧桃为父本进行人工杂交,培育成开花早、需冷量低、能弥补早春桃花空缺的观赏桃品种探春^[8],随后培育出报春、惜春以及红色菊花桃^[9-10]。进入21世纪后,我国观赏桃品种培育进入快速发展期,据不完全统计,我国观赏桃品种约100余个^[11]。近年来一些切枝桃、盆栽桃系列受到了市场和大众的广泛喜爱。观赏桃的花期通常在3月中下旬,早花品种不够丰富,因此培育需冷量低、开花早的品种具有重要意义。

1 选育过程

2013年3月,以嫣红早花为母本、早甜桃为父本进行杂交,获得杂交种子50粒。2013年秋季,按照常规播种育苗方法,成功繁育种苗30株。2015年3月开花后,从中发现一株特异单株P07。该单株始花期在3月5日左右,比母本嫣红早花早12 d,花红色,花型为蔷薇型,重瓣,花径较大,观赏价值高。随后以毛桃为砧木,进行嫁接扩繁。2016年分别在许昌市鄢陵县、郑州市中牟县、洛阳市新安县等试验基点进行区域试验,连续5 a(年)观测,发现该品种生物学特性表现稳定、一致,初步定名为鄢红桃(图1)。2022年经河南省林木品种委员会审定良种(编号:豫S-SV-PP-024-2022)。

2 主要性状

2.1 植物学特征

鄢红桃树势中等,树姿半开张,枝条长直,向阳面红色、背光面绿色,节间中等,平均长2.7 cm;花蔷薇型,重瓣,平均花径4.2 cm,平均花瓣数29片,中层花瓣长1.46 cm,宽1.22 cm,卵形;花红色;有香味;花药橘红色或浅褐色;雌蕊1~2枚,几等长于雄蕊,子房茸毛多,偶有雌蕊退化现象;花萼红褐色,有茸毛,2轮,10片,萼筒内壁黄绿色;果面有长茸毛,底色绿白色,盖色为浅红色,椭圆形,果个大,平均70 g左右,最大可达120 g(表1)。

2.2 生长结果习性

生长势中等,以长枝着花为主,花芽起始节位为



图 1 观赏桃新品种鄢红

Fig. 1 A new ornamental peach cultivar Yanhong

表 1 鄢红与亲本性状比较

Table 1 Comparison between Yanhong and its parents

品种 Cultivar	始花期 First blooming date	花型 Flower type	花瓣类型 Petal type	平均花瓣数 Petal number	萼片数 Sepal number	花色 Petal color	花药颜色 Anther color	需冷量 Chilling requirement/h
鄢红 Yanhong	3月5日 Mar. 5	蔷薇型 Rose-type	重瓣型 Double petal type	29	10	红色 Red	橘红或浅褐色 Tangerine or light brown	300
嫣红早花 Yanhongzaohua	3月17日 Mar. 17	蔷薇型 Rose-type	重瓣型 Double petal type	17	10	浅红色 Light red	黄色 Yellow	400
早甜桃 Zaotiantao	3月28日 Mar. 28	蔷薇型 Rose-type	单瓣型 Single form	5	5	粉色 Pink	橘红色 Jacinth	850

第3~4节,单枝着花数平均48朵;成花容易,花芽数中多。幼树和成年树均以长、中果枝为主。自然结实,结果量中等。

2.3 物候期

在河南省许昌地区,2月底叶芽膨大,3月1日左右现蕾,始花期3月5日左右,盛花期3月10—30日,末花期4月初,开花持续时间28 d左右,持续时间长。6月中下旬果皮底色转为绿白色,果实成熟,果实生育期85 d左右。落叶终止期始于11月上中旬,叶芽萌动至落叶终止期280 d左右。

3 栽培技术要点

适应范围广,抗逆性强,对土壤条件要求不严,但要注意防涝。需冷量较低,在满足需冷量300~600 h的地区均可栽植。种植前多施有机肥,并疏松改良定植点周围土壤。按照2 m×3 m或2 m×4 m株行距进行栽植。前期修剪以培养树形为主,后期控制旺长,促进花芽分化。花芽分化之前可以结合浇水增施磷钾肥,以提高花芽质量及数量;在花芽膨大

期应喷洒石硫合剂,以减轻蚜虫、介壳虫及一些真菌类的侵害。

参考文献 References:

- [1] 渠红岩,吴敏. 古代的桃文献史料与当代的桃文化研究[J]. 韶关学院学报,2007,28(8):102-105.
QU Hongyan, WU Min. Documents and historical materials relating to peach and contemporary peach research[J]. Journal of Shaoguan University, 2007, 28(8): 102-105.
- [2] 叶伟其,吕周林,钟汉春,张伟梅,曹鹏飞,杨继. 若干油桃品种在浙江丽水的适应性研究[J]. 中国南方果树,2011,40(2):52-54.
YE Weiqi, LÜ Zhoulin, ZHONG Hanchun, ZHANG Weimei, CAO Pengfei, YANG Ji. Study on the adaptability of several nectarine varieties in Lishui, Zhejiang[J]. South China Fruits, 2011, 40(2): 52-54.
- [3] 苏明申,叶正文,李胜源,任兴铭,管帮超,吴钰良,常宝华. 桃的栽培价值和发展概况[J]. 现代农业科学,2008(3):16-18.
SU Mingshen, YE Zhengwen, LI Shengyuan, REN Xingming, GUAN Bangchao, WU Yuliang, CHANG Baohua. The summarization of peach cultivation value and development[J]. Modern Agricultural Sciences, 2008(3): 16-18.
- [4] 朱琳飞. 观赏桃栽培基质筛选及花期调控研究[D]. 北京:北京

- 林业大学,2012.
ZHU Linfei. Substrate selection of ornamental peach and flowering regulation research[D]. Beijing: Beijing Forestry University, 2012.
- [5] YOSHIA M. Peach illustrated book[M]. Tokyo: World Culture Publisher, 1985.
- [6] 刘佳琴,王虞英,宋婧一. 北京地区两用桃育种研究进展[J]. 北京农业科学,2000(6):23-25.
LIU Jiachen, WANG Yuying, SONG Jingyi. Research progress in dual-purpose peach breeding in Beijing area [J]. Beijing Agricultural Sciences, 2000(6): 23-25.
- [7] 朱更瑞,王力荣,方伟超. 花果两用观赏桃新品种满天红的选育[J]. 果树学报,2008,25(3):440-441.
ZHU Gengrui, WANG Lirong, FANG Weichao. Selection and cultivation of a new peach variety Mantianhong both for ornamental and food[J]. Journal of Fruit Science, 2008, 25(3): 440-441.
- [8] 方伟超,朱更瑞,王力荣. 短低温早花观赏桃新品种探春的选育[J]. 果树学报,2008,25(6):957-958.
FANG Weichao, ZHU Gengrui, WANG Lirong. Tanchun, a new early blossoming ornamental peach cultivar[J]. Journal of Fruit Science, 2008, 25(6): 957-958.
- [9] 陈青华,赵剑波,郭继英. 观赏桃种质资源与育种的研究进展及展望[C]//中国园艺学会第十届会员代表大会暨学术讨论会论文集. 北京:中国农业出版社,2005:84-87.
CHEN Qinghua, ZHAO Jianbo, GUO Jiying. Research progress and prospects of ornamental peach germplasm resources and breeding[C]//Proceedings of the 10th Member Representative Conference and Academic Symposium of Chinese Society for Horticultural Science. Beijing: China Agriculture Press, 2005: 84-87.
- [10] 沈向,毛志泉,胡艳丽,王丽琴,陈学森,束怀瑞,李晓磊. 桃花新品种‘紫奇’[J]. 园艺学报,2007,34(5):1336.
SHEN Xiang, MAO Zhiquan, HU Yanli, WANG Liqin, CHEN Xuesen, SHU Huairui, LI Xiaolei. A new ornamental peach cultivar ‘Ziqi’[J]. Acta Horticulturae Sinica, 2007, 34(5): 1336.
- [11] 陈霁,马瑞娟,俞明亮,沈志军,蔡志翔. 观赏桃种质资源与创新利用研究进展[J]. 江苏农业科学,2010,38(5):237-240.
CHEN Ji, MA Ruijuan, YU Mingliang, SHEN Zhijun, CAI Zhixiang. Research progress on ornamental peach germplasm resources and innovative utilization [J]. Jiangsu Agricultural Sciences, 2010, 38(5): 237-240.