

中熟蟠桃新品种‘中蟠19号’的选育

陈昌文, 王力荣, 朱更瑞, 方伟超, 曹珂, 王新卫, 牛棚

(中国农业科学院郑州果树研究所, 郑州 450009)

摘要:‘中蟠19号’是通过多代杂交聚合选育出的中熟黄肉蟠桃新品种, 其母本为普通桃单株‘98-2-1’, 父本为油蟠桃优系‘砧1-3’。果实大, 单果质量240 g, 果形平整、厚实, 果皮茸毛短, 底色黄, 果面70%~80%着红色; 果肉黄色, 硬溶质, 离核; 风味甜, 可溶性固形物含量14.5%; 花型铃形, 花粉多, 自花结实; 在郑州地区7月中旬成熟, 果实生育期为113 d左右。

关键词:蟠桃; 新品种; ‘中蟠19号’; 中熟; 黄肉; 离核

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A new middle ripening flat peach cultivar ‘Zhongpan 19’

CHEN Changwen, WANG Lirong, ZHU Gengrui, FANG Weichao, CAO Ke, WANG Xinwei, NIU Peng
(Zhengzhou Fruit Research Institute, Chinese Academy of Agricultural Sciences, Zhengzhou 450009, Henan, China)

Abstract: Flat peach is the main breeding objective. ‘Zhongpan 19’ is a middle ripening flat peach. It’s seedling was derived from a cross between ‘98-2-1’ and ‘Zhen 1-3’ in 2007. The female parent ‘98-2-1’ is a advanced seedling, and is an early-mid ripening yellow flesh peach covered by red flush. The male parent ‘Zhen 1-3’ is a good seedling, and is a yellow flat nectarine. The pollination was done in 2007. And the seeds were extracted in middle July, treated in low temprature for stratification about 90 days. After that, the seeds were potted in sterile nutrient media in greenhouse. All seedlings were planted in open field with density of 0.5 m×4.0 m at the end April of 2008. The advanced seedling ‘07-14west-16’ was selected in 2010, then it was top-worked in Wenxian county in Henan province. Its has a big size, average 240 g and the biggest can reach 550 g. The fruit is covered by 70%-80% red flush. The SSC is around 14.5%, and flavor is good with high sugar and low acid. The flesh is yellow, firm texture and free stone. Flower is pink, non-showy, pollen fertile. In Zhengzhou, the early blooming date period is in late March. Fruit ripens in middle July and the fruit development period is about 113 days. Compared to ‘Zhongpantao 11’, ‘Zhongpan 19’ has more better shape, larger longitudinal diameter, and bigger size and one week early ripening date. Summer and winter pruning management should balanced to get a stronger tree vigor. Heavily thinning flowers and young fruits are must be done to improve fruit quality. Fruit bagged is suggested to get more beautiful color. Free stone leads to soften quickly after ripen and to be easy to peel skin when pick up fruit, suitable picking periods is very important. Proportion of long, middle, short and epicormic fruit branches is 41.72%, 22.52%, 1.32% and 34.44% respectively. Proportion of mixed flower buds is about 45.91% and the first flower bud appears in the first or second node. Average yield can reach 36.8 kg per plant for four-years-old tree. This cultivar is vigorous with half-open tree gesture. Leaf is yellow-greenish, long elliptic to acuminate, 18.40 cm long, 4.30 cm wide. Inter-node length and petiole length is 2.90 cm and 1.10 cm respectively. It was named ‘Zhongpan 19’ in 2015 and got royal license in 2018.

Key words: Flat peach; New cultivar; ‘Zhongpan 19’; Middle ripening; Yellow flesh; Free stone

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作者简介:陈昌文,男,副研究员,主要从事桃遗传育种研究。Tel:0371-65330968,E-mail:chenchangwen@caas.cn

蟠桃因形状独特,可溶性固形物、可溶性糖及糖酸比普通桃高,已成为桃育种的一个重要方向^[1]。自上世纪以来,国内多家育种单位开展了蟠桃育种工作,选育出了一系列蟠桃新品种^[2-4]。但这些蟠桃品种多是白肉,缺乏黄肉品种。中国农业科学院郑州果树研究所于上世纪 80 年代开始进行蟠桃品种选育,通过多代聚合杂交,选育出果形平整、厚实、浓甜,硬度及果个大小均表现良好的中熟黄肉蟠桃‘中蟠 19 号’,与其他品种配套成熟期,以满足当前市场对优良黄肉蟠桃的需求。

1 选育过程

中国农业科学院郑州果树研究所于 2007 年 3 月,选用自选的普通桃优株‘98-2-1’为母本,‘砧 1-3’油蟠桃优系为父本,进行人工杂交(图 1)。2007 年 7

月从杂交果中取出种胚,低温处理 80 d 后,经炼苗后移栽到温室的营养钵中,苗木生长到 14 枚真叶左右移栽到大营养钵中,进行 150 d 的温室生长培养。2008 年 4 月 29 日将苗木带基质移入到田间培养畦内,按 0.5 m×4.0 m 种植在中国农业科学院郑州果树研究所内基地。2011 年杂交苗结果,调查发现单株‘07-14 西-16’为蟠桃,果实大果达 400 g,厚实,平整,肉质硬,离核,风味甜,丰产。于当年 8 月下旬进行扩繁,2012 年建立了优良株系试验园,并在河南郑州、西华、温县、新乡以及陕西西安等地种植,各地综合表现优良。于 2015 年命名为‘中蟠 19 号’(图 2)。2018 年通过河南省林木品种审定委员会审定,良种编号:豫 S-SV-PP-006-2017。2018 年获得非主要农作物品种登记证书,登记编号:GPD 桃(2018)410031;2019 年获得植物新品种权,品种权号:CNA20170632.3。

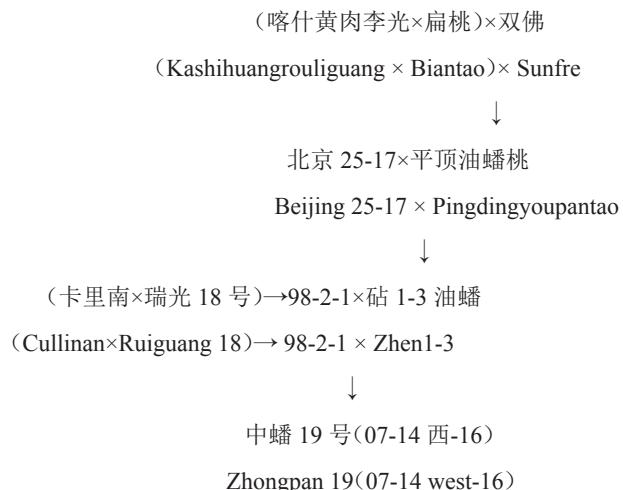


图1 ‘中蟠19号’的系谱关系

Fig. 1 The pedigree of flat peach ‘Zhongpan 19’



图2 蟠桃新品种‘中蟠19号’

Fig. 2 A new flat peach cultivar ‘Zhongpan 19’

2 主要性状

2.1 果实主要经济性状

‘中蟠 19 号’果实扁平,厚实,两半部较对称,

果顶微凹,梗洼浅,缝合线浅,成熟状态一致;单果质量 240 g,大果可达 550 g;果皮茸毛短,底色黄,果面 70%~80% 着红色,果肉黄色,肉质为硬溶质;汁液中等,纤维中等;果实风味浓甜,可溶性固形物含

量为14.5%，离核。与当前黄肉蟠桃主栽品种‘中蟠桃11号’相比，‘中蟠19号’果个更大，离核，成熟期

比‘中蟠桃11号’早熟1周，可作为其配套品种推广（表1）。

表1 ‘中蟠19号’与‘中蟠桃11号’的比较

Table 1 Comparation of ‘Zhongpan 19’ and ‘Zhongpantao 11’

品种 Cultivar	果实纵径 Longitudinal diameter/cm	平均单果质量 Single fruit mass/g	黏离核性 Stone adherence to flesh	w(可溶性固形物) Soluble solid content/%	w(可溶性糖) Soluble sugar content/%	w(可滴定酸) Titratable acidity content/%	w(维生素C) Vitamin C content/ (mg·100 g ⁻¹)
中蟠19号 Zhongpan 19	5.5	240	离核 Free stone	14.5	8.82	0.19	7.78
中蟠桃11号 Zhongpantao 11	4.3	200	黏核 Cling stone	14	9.02	0.18	6.84

2.2 生长结果习性

树势强，长、中、短果枝均能结果，4 a(年)生树其长果枝占41.72%，中果枝占22.52%，短果枝占1.32%，徒长性结果枝34.44%，徒长性结果枝长放时仍能结果。复花芽居多，占45.91%，花芽起始节位低，为第1~2节，采用2 m×4 m株行距栽植，4 a生平均株产36.8 kg，丰产性良好。

2.3 植物学特征

树姿半开张；节间长度2.90 cm；叶片长18.40 cm，宽4.30 cm，呈长椭圆披针形，叶柄长1.10 cm，叶色黄绿色，叶基楔形，叶尖渐尖；花为铃形，花色粉红，花粉多，萼筒内壁色橙黄，自花可以结实。

2.4 生物学特性

郑州地区3月初叶芽膨大，3月中下旬开花，开花持续期约7 d。7月中旬果实成熟，果实生育期约113 d。落叶终止期11月10日左右，生育期260 d。

3 栽培技术要点

3.1 树体管理

因该品种生长健壮，幼树期修剪适当轻剪、适当控制树势。冬季修剪，宜采用枝条长放，缓和树势。

3.2 疏花疏果

该品种坐果率较高，但果实大，还应加大疏花疏果力度，以提高果实品质。疏果在花后45 d进行，果与果之间的距离应大于25 cm，长果枝留2~3个果，中果枝1~2个果，短果枝和花束状果枝不留果，徒长性果枝在修剪后可适量留果。

3.3 套袋栽培

建议采用套袋栽培，果面更加漂亮。以外黄内黑果袋为宜。

3.4 适时采摘

该品种虽为硬溶质桃，但由于为离核品种，完全成熟时果实硬度下降较快，同时采摘时果柄处果皮尚有少量撕裂。因此应适时采收，既保证果实品质，也不影响运输。

3.5 采后包装

该品种果实大，包装盒子宜为单层。盒内宜用塑料泡沫制成凹槽，以避免盒内果实之间相互挤压。

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