

早中熟油蟠桃新品种‘中油蟠9号’的选育

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摘要: ‘中油蟠9号’是通过多代杂交聚合选育出的早中熟黄肉油蟠桃新品种, 其母本为单株‘98-4-32’, 父本为油蟠桃优异种质‘砧1-3’油蟠。果实大, 平均单果质量200 g, 大果350 g, 果实平整、厚实, 底色黄, 果面近全红; 果肉黄色, 不溶质; 风味甜, 可溶性固形物含量15%; 花型蔷薇型, 花粉多, 自花结实; 在郑州地区果实7月上旬成熟, 果实发育期约100 d。

关键词: 油蟠桃; 新品种; ‘中油蟠9号’; 早中熟; 黄肉

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A new early-middle flat nectarine peach cultivar ‘Zhongyoupan 9’

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Abstract: Flat-nectarine peach combines with flat shape and nectarine glabrous surface, more convenient and more beautiful for consumer. Especially, as heritable pleiotropy of glabrous and saucer shape gene loci from peach, flat-nectarine peach has higher sugar, more sweet, but small size and cracked fruit are biggest problem. ‘Zhongyoupan 9’ is an early-middle ripening flat nectarine peach. Its seed was derived from a crossing ‘98-4-32’ with ‘Zhen 1-3’ in 2007. The female parent ‘98-4-32’ is an advanced seedling. The male parent ‘Zhen 1-3’ is a good yellow flat nectarine superior line. The pollination was done in 2007. The seedling was gotten by embryo culture and was raised in greenhouse. All seedlings were planted in open field with density of 1.0 m×4.0 m at the early of May in 2008. The advanced seedling ‘07-7-6’ was selected in 2011, then it is top-worked in Wenxian county in Henan province. Under a row spacing of 2×4 meters cultivating, the average yield was 20 kg for every tree in the third year and 30.0 kg in the fourth year. It has a big size, average 200 g and the biggest can reach 350 g. The fruit is covered nearly 100% red flush. The SSC is more than 15%, and flavor is good with high sugar and low acid. The flesh is yellow, texture is non-melting, cling stone. Flower is pink, showy, pollen fertile. The leaf is lanceolate, leaf glands kidney-shaped. In Zhengzhou, the early blooming period is in late March. Fruit ripens in early of July and the fruit development period is about 100 days. The termination period of fallen leaves is in mid-November, and the full growth period is 260 days. Compared to ‘Zhongyoupan 5’, ‘Zhongyoupan 9’ has better shape, larger longitudinal diameter, bigger size and 10 days later ripening date. Summer and winter pruning management should balanced stronger tree vigor. Flowers thinning and fruit thinning are must be done. In general, the distance between the fruit should be greater than 25 cm, we should keep 2-3 fruits in long fruit branch, 1-2 fruit in middle fruit branch. The fruit should avoid direct sunlight. Fruit bagged is suggested to avoid fruit cracked and get more beautiful surface. For bagged fruit, the surface has redness in the open field and is golden yellow in greenhouse. It has good texture, fruit can be picked up until fruit ripening well in the tree. It was got-

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ten royal license in 2018.

Key words: Flat-nectarine peach; New cultivar; ‘Zhongyoupan 9’; Early-middle ripening; Yellow flesh

油蟠桃因兼具油桃的光滑无毛、色泽艳丽和蟠桃的果形扁平等特点,故而食用更为方便。由于果皮茸毛和果形扁平的对果实单果重和可溶性固形物含量的遗传多效性,在同一遗传群体中,油蟠桃的单果重比圆桃降低近50%、可溶性固形物含量增加近30%。油蟠桃果小、肉薄致使果核外露、果顶不闭合、裂顶、裂核等问题突出^[1]。如我国唯一油蟠桃地方品种‘金塔油蟠’的单果重仅有37 g,裂果非常严重^[2]。因此,果实大、果顶闭合良好、不裂果、果面干净是油蟠桃育种的最主要目标。此前,国内外也有少量油蟠桃新品种问世^[3-4]。但果实小或成熟期不配套,一直是产业发展的瓶颈问题。中国农业科学院郑州果树研究所于20世纪80年代开始进行蟠桃品种选育,通过多代聚合杂交,选育出早中熟黄肉油蟠桃品种‘中油蟠9号’,与其他品种形成成熟期配套的品种,以满足当前市场的需求。

1 选育过程

1994年,以‘砂子早生’为母本,‘曙光’为父本进行人工杂交,获得‘4-1’优株(毛桃-油桃杂合体);1998年以‘北京3-2’为母本,‘4-1’为父本进行人工杂交,获得‘98-4-32’油桃优株;2006年3月,以‘98-4-32’为母本,以利用地方品种‘扁桃’创制的优异种质‘砧1-3’油蟠桃^[5]为父本,进行人工杂交(图1)。



图1 ‘中油蟠9号’系谱图

Fig. 1 The pedigree of flat-nectarine peach ‘Zhongyoupan 9’

2007年6月将杂交果取出种胚,接种于WPM培养基上,进行胚培养。低温处理80 d后,播种于温室的营养钵中,进行150 d的温室生长培养。2008年5月初将苗木带基质移入田间,按株行距1 m×4 m定植。2011年大量结果,其中‘07-7-6’油蟠桃表现果实全红,果实大,大果300 g以上,肉质硬,风味浓甜,极丰产。于当年8月下旬进行高接繁殖10株,2012年建立了优良品系试验园,在河南西华、新乡、温县等地试种,综合表现优良。2017年命名为‘中油蟠9号’(图2),并通过河南省林木品种审定委员会审定(豫S-SV-PP-008-2017),2018年获得非主要



图2 蟠桃新品种‘中油蟠9号’

Fig. 2 A new flat peach cultivar ‘Zhongyoupan 9’

农作物品种登记证书(GPD桃(2018)410002),2019年获得植物新品种权(CNA20170634.1)。

2 主要性状

2.1 果实主要经济性状

果实扁平,两半部较对称,果顶平,梗洼浅,缝

合线浅,成熟状态一致;单果质量200 g,大果350 g;果皮光滑无毛,底色黄,果面95%以上着红色,比较美观,套袋栽培后果面金黄,非常漂亮;果肉黄色,肉质为不溶质,挂树期10~15 d,耐运输,货架期长;汁液中等,纤维中等;果实风味浓甜,可溶性固形物含量15%,黏核(表1)。

表1 ‘中油蟠9号’与‘中油蟠5号’的比较

Table 1 Comparison of ‘Zhongyoupan 9’ and ‘Zhongyoupan 5’

品种 Cultivar	果实成熟期 Maturing date	果实纵径 Longitudinal diameter/cm	单果质量 Single fruit mass/g	w(可溶性固形物) Soluble solid content/%	w(可滴定酸) Titratable acidity content/%
中油蟠9号 Zhongyoupan 9	7月4日 July 4	4.79	200	15	0.30
中油蟠5号 Zhongyoupan 5	6月25日 June 25	4.30	150	14	0.34

2.2 生长结果习性

树势中庸健壮,长、中、短果枝均能结果,其中长果枝占42.39%,中果枝占33.15%,短果枝占16.30%,徒长性结果枝占8.15%,徒长性结果枝长放时仍能结果。复花芽居多,占50.00%,花芽起始节位为第2~4节,自花结实,采用2 m×4 m株行距栽植,第2年见果,第3年平均株产20 kg,第4年平均株产30.0 kg。

2.3 植物学特征

树姿半开张、强健;叶片为披针形,叶腺肾形,2~3个;花为蔷薇形,花粉可育。

2.4 生物学性状

郑州地区3月下旬开花。果实7月4日左右成熟,果实生育期100 d左右。落叶终止期11月10日左右,生育期260 d。

2.5 适应性及抗逆性

该品种适合黄淮海流域露地栽培及设施栽培;在新疆北疆需匍匐防寒栽培。

2.6 综合评价

该品种早熟、果顶平、果实大、风味浓甜、肉质好,挂树期长,耐贮运,货架期长。不足之处是果面糖点明显,多雨时有裂果、裂核。

3 栽培技术要点

3.1 适宜区域

该品种适宜黄河流域露地和设施栽培。南方多雨地区裂果严重,不适宜栽培。适合北方设施栽培。

3.2 疏花疏果

该品种坐果率高,果实大,应加大疏花疏果力度。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;以留果枝侧面果实为好。

3.3 套袋栽培

该品种在成熟季节遇上下雨,易裂果;采用套袋栽培,果面干净漂亮、金黄亮丽。以外黄内黑(红)油光纸袋为宜。套袋后,露地栽培果面有返红

现象,设施栽培金黄色,更为漂亮。

3.4 合理施肥

合理施肥,保证树势健壮,结果部位在树体中外部,但避免太阳直射引起的果锈。

3.5 适时采收

该品种肉质好,挂树期10~15 d,果实可在树上成熟,达到良好的品质。因此,不要提早采收果实。

3.6 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,以避免果实之间相互挤压。

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