

## 早熟鲜食桃新品种‘豫农蜜香’的选育

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**摘要:** ‘豫农蜜香’是以晚熟鲜食桃品种‘八月香’为母本, 中熟鲜食桃品种‘豫香’为父本杂交育成的早熟鲜食桃新品种。该品种果实较大, 果实长圆形, 平均单果质量 148 g; 果面极干净, 果皮底色洁白如玉, 茸毛短; 果肉白色, 柔软多汁, 风味纯甜, 果肉软溶质, 香气浓郁, 可溶性固形物含量可达 15%; 离核。在河南郑州地区 6 月 18 日可开始采收, 6 月 25 日左右完全成熟, 丰产稳产、不裂果、不裂核, 栽培适应性强, 可以在河南各地桃产区进行规模化生产。

**关键词:** 桃; 新品种; ‘豫农蜜香’; 早熟

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### A new early-maturing peach cultivar ‘Yunongmixiang’

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**Abstract:** ‘Yunongmixiang’ is a new early-maturing peach cultivar which is derived from the cross ‘Bayuexiang’ × ‘Yuxiang’ in 2000. ‘Bayuexiang’ and ‘Yuxiang’ were both bred by Henan Agricultural University. ‘Bayuexiang’ is a late-maturing, clingstone, white-flesh peach cultivar with good flavor. ‘Yuxiang’ is a middle-maturing, clingstone peach cultivar. The anthers of ‘Yuxiang’ at big bud stage were collected. 260 flowers of female parent removed the corollas were pollinated and bagged in April 3, 2000. 121 fruits of the cross were harvested, and the cleaned seeds were stratificated. 72 seedlings were obtained and planted at 0.5 m × 1 m in density in the next spring. No. ‘00-7-12’ was selected after more than three years identification and tests. In 2012, the bud wood from this selection was grafted onto Chinese wild peach (‘Maotao’) seedling rootstocks and planted in three sites in Henan province (including Xinzheng, Luoshan and Xincai). The cultivar comparison trials with ‘Yumeiren’ as control were conducted from 2012 to 2016 at each site. All testing trees were trained as open-center-natural form with spaced 3 m in the rows and between rows 5 m. The tree, flower and fruit characteristics of ‘00-7-12’ were assessed in comparison trials from 2012 to 2016. The characteristics of ‘00-7-12’ were obviously better than ‘Yumeiren’ after 5 years of evaluation. Trees of ‘00-7-12’ are vigorous with a semi-upright growth habit. Leaves of ‘00-7-12’ tree have reniform nectaries, and the average leaf size is 4.3 cm wide and 17.4 cm long. The fruits of are mainly set on long branches. The earliest full bloom date was observed on 24 March at Xinyang which located in the south region of Henan province. Its flowers are nonshowy and fertile with abundant bright yellow pollen. The average ripening date in Henan was 25 June, about 90 d after full bloom. The fruit shape of ‘00-7-12’ is oblong while the fruit shape of ‘Yumeiren’ is ellipse. The ground color of fruit is white. There is short fuzz on the skin of fruit which characteristic was favored by consumers. Thirty fruit samples were collected each year to determine their weight, flesh firmness, soluble

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solids content, total sugar and vitamin C content. The average weight of single fruit is 148 g and could be up to 327 g if keeping 15–20 cm distance between fruits. Fruit weight of ‘00–7–12’ tends to increase as the trees age. The average soluble solids content in the mature fruits is 15.0%, which is higher than that of ‘Yumeiren’ at 13%. The total sugar and total acid are 7.98 and 0.22%, respectively. The vitamin C content is 12.2 mg·100 g<sup>-1</sup>, obviously higher than control. The flesh is white and melting. The skin of mature fruit is easy to peel. Its semi-freestone was favored by consumers. Moreover, the consumers could be attracted by the aroma with fruits of ‘00–7–12’. Fruits could be picked in June 18 and absolutely ripened in June 25. ‘00–7–12’ was certified by the evaluation committees of Henan province in 2016 and named ‘Yunongmixiang’. ‘Yunongmixiang’ is a high-productivity cultivar and suitable for cultivated in Henan province.

**Key words:** Peach; New cultivar; ‘Yunongmixiang’; Early-maturing

近些年来,随着我国人民生活水平的进一步提高,桃产业得到迅速发展,对桃品种类型的需求也逐渐趋于多样化<sup>[1]</sup>。其中离核桃由于果肉易与种核分离,可直接用手掰开,分成两半,食用方便,因而在很多地区受到消费者的青睐<sup>[2]</sup>;而短茸毛的品种不仅食用方便,且相对于油桃有适应性更为广泛的特点<sup>[3]</sup>。此外,消费者在追求果实风味的同时,对果实的香味也表现出浓

厚的兴趣。基于此,本课题组提出了培育“适于河南地区广泛栽培的风味浓甜,香味浓郁,离核,优质”的育种目标,经过人工杂交育种,按照严格的育种程序进行实生苗培育、预先选择、优株选择、品种比较试验、区域化生产试验等一系列育种环节,最终从大量杂交后代中选出了适于河南地区栽培的风味纯甜、香气浓郁、离核的早熟鲜食桃新品种‘豫农蜜香’(图1)。



图1 早熟鲜食桃新品种‘豫农蜜香’

Fig. 1 A new early-maturing peach cultivar ‘Yunongmixiang’

## 1 选育经过

2000年以晚熟鲜食桃品种‘八月香’为母本<sup>[4]</sup>、中熟鲜食桃品种‘豫香’为父本进行有性杂交,共杂交授粉260枚花朵,获得发育饱满的杂交种子92粒,进行层积处理和催芽后,于2001年播种于杂种苗圃地。为了使实生苗的优良性状能够得到充分发育,对苗木施行‘肥培法’培育,经过预选,当年共得到生长健壮的杂种实生苗72株。2002年将得到的72株生长健壮的杂种实生苗定植于杂种圃,仍施行“肥培法”培育。2004年72株杂种树全部开花,经3 a果实性状的初步鉴定,其中代号为‘00–7–12’的单株表现优异,被复选为优良

单株。2006年12月将代号为‘00–7–12’的单株定植于郑州须水镇孙庄果园,以成熟期相近的‘玉美人’为对照,进入品种比较试验。植株结果后,连续3 a进行田间观察、室内果实品质鉴定及果实试销后市场反馈的情况,结果表明,该品系果实果皮底色洁白如玉,茸毛短,果面极干净;果肉白色,柔软多汁,风味纯甜,果肉软溶质,香气浓郁,可溶性固形物含量可达15%,高于对照‘玉美人’(13%);平均单果质量148 g,高于对照‘玉美人’18 g;成熟期在6月下旬;丰产稳产、不裂果、不裂核,有花粉,自花结实率高。2010年将‘00–7–12’无性系定名为‘豫农蜜香’(系谱关系见图2)。

为了测定新品系‘豫农蜜香’的适应范围,2012年

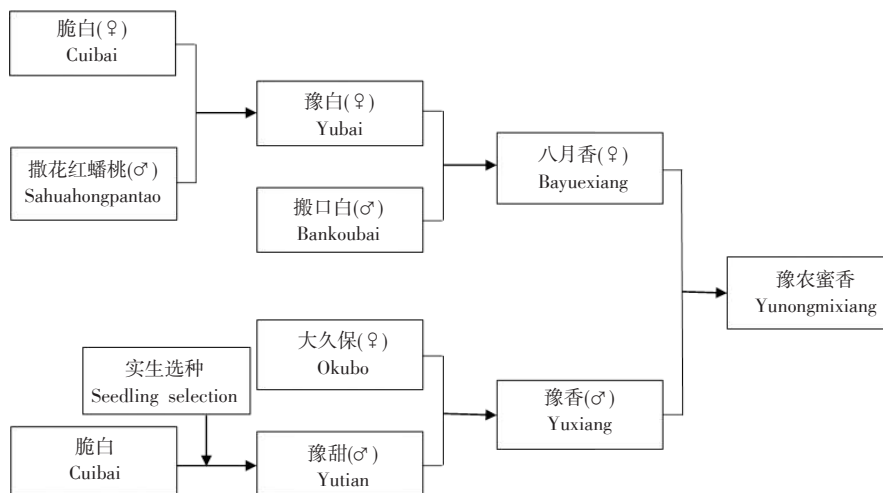


图2 ‘豫农蜜香’桃系谱

Fig. 2 The pedigree of ‘Yunongmixiang’

开始在全省范围内的不同地区,选择不同的立地条件建园,进行区域性和生产性试验。区域性试验点分别选在郑州市新郑市、信阳市罗山县、驻马店市新蔡县。从3个栽培地方调查数据来看,‘豫农蜜香’在各试验地区的成熟期与对照品种‘玉美人’相似,其他各种指标均高于对照或与对照无明显差异,表明‘豫农蜜香’在这些地区有良好的适应性。2016年12月通过河南省林木品种审定委员会审定(良种证编号:豫S-SV-PP-028-2016)。

## 2 主要性状

### 2.1 果实主要性状

‘豫农蜜香’桃果实长圆形,两半部较对称,果顶凸起,梗洼深,缝合线明显、浅,成熟状态一致;平均单果质量148 g,最大单果质量327 g;果面干净,底色白色,茸毛短,果肉白色,肉质为软溶质;汁液多,纤维中等;果实风味甜,可溶性固形物含量15%,离核。

农业部果品及苗木质量监督检验测试中心(郑州)检测结果表明(表1),‘豫农蜜香’桃果肉可溶性固形物含量15.0%,可溶性糖含量7.98%,总酸含量0.22%,维生素C含量122 mg·kg<sup>-1</sup>。

### 2.2 植物学特征

‘豫农蜜香’桃植株长势较强,树姿半开张,新梢绿色,萌芽率和成枝率均为中等,叶片大,宽披针形,

表1 ‘豫农蜜香’与对照品种果实主要农艺性状比较

Table 1 Comparison of main characters between ‘Yunongmixiang’ and the control cultivar

品种 Cultivar	成熟期 Ripening date	果形 Fruit shape	肉质 Flesh type	平均单果质量 Average mass/g	ω(可溶性固形物) Soluble solids content/%	核 Stone adhesion
豫农蜜香 Yunongmixiang	6月下旬 Late June	长圆 Oblong	软溶质 Melting	148	15.0	离核 Freestone
玉美人 Yumeiren	6月下旬 Late June	椭圆 Ellipse	软溶质 Melting	130	13.0	半离核 Semi-freestone

叶长17.4 cm,宽4.3 cm,颜色绿,叶缘钝锯齿,缺刻深浅中等,叶基部楔形,先端渐尖。叶柄具腺体2~3个,腺体为肾形,较小。花蔷薇型,大花,花芽的抗寒能力强,并能抵抗花期的不良气候。

### 2.3 物候期

在河南郑州地区,‘豫农蜜香’桃萌芽期一般在3月上旬,初花期在3月20日,盛花期在3月底,末花期在4月5日,果实6月18日可开始采收,6月25日左右完全成熟,果实生育期90 d左右。落叶终止期11月10日左右,全年生育期260 d左右。

### 2.4 生长结果习性

‘豫农蜜香’桃植株长势较强,一年可抽生2~3次副梢,新梢平均生长量78.8 cm。中果枝节间平均长2.65 cm。花芽起始节位为2~3节,单、复花芽的比为1:3~4,以复花芽为主。该品种花粉多,自花结实能力强;幼树以长果枝结果为主,盛果期各类果枝均可结果。

## 3 栽培技术要点

### 3.1 定植建园

根据地形地貌、土壤肥力和对早期产量的要求,

合理确定种植密度。‘豫农蜜香’更适宜在土层深厚、土质疏松、排水良好的土壤种植。以毛桃作砧木繁育优良苗木。露地种植一般采用“Y”形整形,种植密度为2 m×4 m或2 m×5 m;采用三主枝开心形整形,种植密度为3 m×(5~6) m;若希望早期丰产,可采用1 m×(3~4) m的株行距按主干形整枝。

### 3.2 肥水管理

‘豫农蜜香’属丰产型品种,为确保果实品质,丰产期应注意增施有机肥,提倡行间生草、行内覆盖的土壤管理模式;要求从5月中旬开始,每10 d喷施0.3%~5%的 $\text{NaH}_2\text{PO}_4$  1次,采果前20 d停止喷施,有利于提高果实的含糖量;为防止果实品质降低,保证果实的贮藏能力,果实采收前15 d以内不宜浇水。每年9—10月施入基肥(666.7 m<sup>2</sup>施有机肥3 000~5 000 kg),12月上中旬及时浇灌封冻水。

### 3.3 花果管理

‘豫农蜜香’结实率很高,为了提高果实品质,生产中要注重疏花疏果。在初花期进行疏花,复花芽留一个好的花蕾,保留果枝两侧或斜下侧的花蕾,在4月底—5月初进行疏果和定果,短果枝留1个果,中果枝留2~3个果,长果枝留4~5个果,盛果期每666.7 m<sup>2</sup>产量应控制在2 500 kg以内。

### 3.4 病虫害防治

对蚜虫、桃小食心虫、桃蛀螟、白粉病、细菌穿孔病等病虫害具有较强的抗性,每年冬季结合整形修剪,搞好果园清园工作。春季及时喷施石硫合剂,压

低病虫害基数。落花坐果后喷施多菌灵,防疮痂病;果实发育后期注意防治桃小食心虫、桃蛀螟。采果后搞好夏季修剪,确保树体通风透光,有利于连年丰产稳产。

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