

晚熟油桃新品种陇油金蜜的选育

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摘要:陇油金蜜是以01-6-7-1(油187×瑞光3号)油桃为母本、瑞光28油桃为父本杂交培育的晚熟油桃新品种。果实圆形,果顶圆平,两半部对称,平均单果质量212.0 g,最大果质量242.0 g;果面全红,果皮底色浅黄;果肉黄色,近核处有红色素,硬溶质;风味浓甜,可溶性固形物含量(w,后同)16.5%,可溶性糖含量12.9%,有机酸含量0.34%,维生素C含量50.2 mg·kg⁻¹,果实硬度9.27 kg·cm⁻²,黏核。在甘肃省兰州市8月下旬成熟,果实生育期137 d。自花结实,丰产。适宜在甘肃省中部、东部及南部的桃产区推广种植。

关键词:油桃;新品种;陇油金蜜;晚熟;黄肉

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A new late-ripening nectarine cultivar Longyoujinmi

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Abstract: Longyoujinmi is a late-ripening nectarine cultivar bred by artificial pollination. Its pedigree is 01-6-7-1 × Ruiguang 28, hybridized in 2008. 23 hybrid seedlings were obtained by embryo rescue. One individual 08-10-12 was chosen as the new strain for its good taste. After regional adaptability testing at five sites (including Gaolan, Anning, Qin'an, Jiayuguan and Huixian areas, which are all peach main producing areas in Gansu province) over three years from 2014 to 2017, and it was finally selected in 2018. The tree's growth vigor is flourishing, and the tree canopy is half-open. Leaf shape is long elliptic lanceolate. Leaf is 16.53 cm in length and 4.85 cm in width, petiole is 1.06 cm in length, and leaf gland is crenature. The color of the leaf is green, with 2-4 kidney shaped leaf glands. The flowers were rose-shaped, with pollen, pistils and stamens being highly congruent. The fruit is round, the top of the fruit is flat, the two halves are symmetrical, the average single fruit quality is 212.0 g, and the fruit mass is 242.0 g. Fruit background color is light yellow with red pigment. The fruit flesh is yellow and hard-melting with less fiber and strong sweet flavor. The contents of fruit soluble solids, soluble sugar, organic acid and Vitamin C are 16.5%, 12.9%, 0.34% and 50.2 mg·kg⁻¹ fresh, respectively. Flesh firmness is 9.27 kg·cm⁻². The stone is oval shape, brown and clingstone. In Anning area of Lanzhou, the flower buds of Longyoujinmi begin to sprout by the end of March to early April, flowering starts in mid-April, the fruit ripens in late August, the fruit growth period is about 137 d, and the annual growth period is about 233 d. Longyoujinmi has a strong adaptability to cultivation environment and good resistance. It can be grown in the central and eastern regions of Lanzhou, Tianshui, Longnan and other places with similar ecological conditions of cultivation. Longyoujinmi is more suitable for growing with sufficient sunlight and on deep sandy loam soil. In a production, three-scaffold-limb open center system should be adopted, and planting density should be 3 m × (4-5) m; if Y system is adopted, planting density should be 2 m × (4-5) m. Long-shoot pruning should be applied as the main way of pruning, paying

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an attention to renewing the fruit branches. Longyoujinmi is a very fruitful cultivar, and the fertilizer and water demand is higher, which should accord to soil moisture conditions. Under natural conditions, Longyoujinmi has higher natural fruit setting rate, so strict fruit thinning must be made for reasonable load. During the full bearing period, 2300 kg per 666.7 m² production should be controlled. In spring, spray with 3–5 Baume degree lime sulphur on the whole orchard should be done to reduce the number of overwintering diseases and insect pests, and strengthen the prevention and control of aphid, oriental fruit moth and adoxophyes orana, etc. The efficient and low residue chemicals should be chosen to effectively prevent and control pests and diseases, so as to improve fruit quality and guarantee food safety.

Key words: Nectarine; New cultivar; Longyoujinmi; Late ripening; Yellow flesh

桃是甘肃省主要栽培果树之一,在甘肃省桃主产区秦安县、皋兰县、七里河区等一些乡镇,农民收入的70%以上来自桃产业。甘肃省农业科学院林果花卉研究所从“十五”开始桃新品种的选育工作,先后选育出极早熟油桃甘露早油、早熟油桃陇油桃2号及早中熟油桃陇油桃1号等白肉油桃新品种,而大果、黄肉甜油桃品种缺乏。国内油桃品种中,以早、中熟品种居多,中晚熟、晚熟品种较少^[1-3],晚熟高糖度黄肉品种更少^[4]。

1 选育经过

2008年,以01-6-7-1(油桃187×瑞光3号)为母本、瑞光28油桃为父本进行人工杂交,杂交种子通过胚挽救技术最终获得杂种苗23株。2011年发现编号08-10-12的单株所结果实果个大、风味浓甜,初选为优株,经过连续3 a(年)观察,果实性状稳定并复选,2014年高接并嫁接苗木,在甘肃省不同区域的5个区试点进行区试观察,经多年多点区试观察、评比和鉴定,该新品系性状遗传稳定,果实经济性状和栽培性状优良,终选为晚熟优良油桃品种,2018年定名为陇油金蜜。2020年7月获得农业农村部颁发的植物新品种权证书(品种权号:

CNA20184490.5),2020年9月获得农业农村部非主要农作物品种登记,登记编号:GPD桃(2020)620012。

2 主要性状

2.1 果实经济性状

陇油金蜜果实圆形,平均单果质量212.0 g,大果质量242.0 g;果顶圆平;缝合线浅,两半部对称,梗洼浅;果皮底色浅黄,果面着红色斑点(图1),果皮厚,难剥离;果肉黄色,肉质致密,近核果肉花青苷积累多,硬溶质,汁液多,纤维少,味浓甜,可溶性固形物含量(w,后同)16.5%,可溶性糖含量12.9%,有机酸含量0.34%,维生素C含量50.2 mg·kg⁻¹。果核相对果实大小为中,褐色,卵圆形,黏核(表1)。果实去皮硬度9.27 kg·cm⁻²。适合鲜食。

2.2 植物学特征

树姿半开张,1年生枝阳面红褐色,背面绿色。叶片长16.53 cm,叶片宽4.85 cm,长椭圆披针形,叶面平展、叶尖微向外卷,叶基楔形近直角,绿色;叶柄长1.06 cm,叶缘为钝锯齿;蜜腺肾形,2~4个。花芽起始节位2~3节。花蔷薇型,粉红色,花药橘红色,有花粉;萼筒内壁橙黄色,雄蕊与雌蕊等高。



图1 油桃新品种陇油金蜜

Fig. 1 A new nectarine cultivar Longyoujinmi

表1 陇油金蜜与理想果实主要经济性状比较

Table 1 Comparison of main fruit characters of Longyoujinmi and Fantasia

| 品种 Cultivar | 成熟期 Ripening date | 平均单果质量 Average single fruit mass/g | 纵径 Longitudinal diameter/cm | 横径 Transverse diameter/cm | 去皮硬度 Peeling hardness/(kg·cm ⁻²) | w(可溶性固形物) Soluble solids content/% | w(可溶性糖) Soluble sugar content/% | w(可滴定酸) Acid content/% | 风味 Flavor | 核黏 离性 Stone |
|----------------------|----------------------|---------------------------------------|--------------------------------|------------------------------|---|---------------------------------------|------------------------------------|---------------------------|------------------------------|-------------------|
| 陇油金蜜 Longyoujinmi | 8月26日 Aug. 26 | 212.0 | 8.0 | 8.1 | 9.27 | 16.5 | 12.9 | 0.34 | 浓甜 Strong sweet | 黏核 Cling |
| 理想 Fantasia | 8月12日 Aug. 12 | 162.6 | 7.4 | 7.5 | 7.13 | 14.8 | 11.5 | 0.87 | 甜酸 Sour with slight sweet | 离核 Free |

2.3 物候期

在甘肃省兰州市,正常年份3月下旬花芽开始萌动,4月上中旬开花,花期6~8 d;4月下旬展叶,5月上旬抽梢,8月下旬果实成熟,果实生育期137 d左右。11月上中旬落叶,全年生育期233 d左右。

2.4 生长结果特性

树势较强,花芽形成好,复花芽多,各类果枝均能结果。2014年春季成苗定植,主干形树形,株行距1.2 m×2.5 m,2016年株产2.5 kg,2018年株产8.6 kg,折合666.7 m²产量1909 kg,5年生树年株产9.8 kg,折合666.7 m²产量2175.6 kg。

2.5 抗逆性及栽培适应性

陇油金蜜树体和花抗寒性均较强。经过多年、多点试验观察,在各区试点均表现出很强的栽培适应性和较强的抗逆性。对流胶病和细菌性穿孔病有较强抗性。适宜在甘肃省中东部的兰州、天水及南部的徽县等桃产区推广种植。

3 栽培技术要点

3.1 建园

建园时应选择水肥条件较好的地块。选用山桃做砧木。

3.2 整形修剪

休眠期以长枝修剪为主,夏剪主要采用疏枝、摘心、开展角度等措施,控制竞争枝和徒长枝。进入盛果期后,注意更新修剪,同时保持树冠的通风透光,有利于果实着色和品质的提高。

3.3 花果管理

陇油金蜜坐果率较高,应合理留果,有利于果个的增大和品质的提高。一般长果枝留果4~5个,中果枝留果2~3个,短果枝留果1~2个,花束状果枝可不留果或根据情况留1个果。每666.7 m²产量以2300 kg为宜。

3.4 肥水管理

陇油金蜜丰产性较强,应加强肥水管理。秋季

每666.7 m²施腐熟有机肥2000~3000 kg,结合秋季施肥,施入氮素的60%,磷素的90%,钾素的50%;萌芽前施入剩余氮肥的20%、磷肥的10%;硬核期施入剩余氮肥的20%、钾肥的20%;果实膨大期施入剩余钾肥的30%。灌水便利的果园,每年及时浇灌萌芽水(兰州在3月中旬)、封冻水(兰州在11月中下旬),生长期根据土壤墒情浇灌。

3.5 病虫害防治

陇油金蜜无特殊病虫害。生长期根据病虫害发生规律,适时喷药防治。萌芽期(3月上旬)全园喷3~5 °Bé的石硫合剂,消灭和减少越冬害虫和病源。落花80%(4月中旬)第2次清园,以防治梨小食心虫、蚜虫为主。5—8月份,以防治梨小食心虫、红蜘蛛和细菌性穿孔病、褐腐病等为主。农药要交替使用,以免产生抗药性。

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