

晚熟优质黄肉桃新品种美阳的选育

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摘要: 美阳是以中晚熟白肉桃优株99-1-44(丰白×金童5号)为亲本, 通过自交育成的晚熟黄肉桃新品种, 2020年通过河北省林木品种审定委员会审定。果实圆形, 果顶凹, 缝合线中, 两半部对称, 平均单果质量377 g, 大果质量602 g。果皮底色黄, 果面着红色, 着色率20%~50%, 茸毛少。果肉黄色, 硬溶质, 风味甜, 可溶性固形物含量(w)13.3%~16.2%。离核, 鲜食品质佳。去皮硬度为13.7 kg·cm⁻², 采收持续期10 d以上, 室温下可贮藏10~15 d。树势强健, 树姿半开张。叶片椭圆披针形; 花蔷薇型, 有花粉, 自花结实率和自然坐果率高。石家庄地区3月下旬萌芽, 4月上旬盛花, 9月中下旬果实成熟, 果实发育期173 d左右, 11月上旬完全落叶。美阳桃适宜在河北省中南部及相似气候地区栽培。

关键词: 桃; 新品种; 美阳; 晚熟; 黄肉

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Report of a new late-ripening yellow-fleshed peach cultivar Meiyang

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Abstract: Meiyang is a yellow-fleshed and high quality peach cultivar derived from selfing of 99-1-44 in 2004 in the experimental field of Shijiazhuang Institute of Fruit Trees, Hebei Academy of Agriculture and Forestry Sciences. The parent 99-1-44 is a mid-late ripening white-fleshed peach selected from a cross between Fengbai and Baby Gold 5 in 1999. It was initially selected in 2008 for its yellow flesh, late-ripening, freestone and high quality, and tested for regional adaptability in Changan District of Shijiazhuang, Ningjin County of Xingtai, Shunping County of Baoding and Xinji City from 2011 to 2020. It passed the final selection, and approved by Hebei Forest Variety Certification Committee in 2020. The fruit was round with two symmetrical halves, and had a concave top with intermediate suture. The average fruit mass was 377 g, and the maximum fruit mass was 602 g. The vertical diameter, cheek diameter and suture diameter was 8.33 cm, 8.46 cm, and 8.49 cm, respectively. The peel had yellow background covered with 20%–50% red blush on the surface and short fuzz. The flesh was yellow with firm texture and moderate juice, and covered with little red pigment around stone. The flavor was sweet with a soluble solid content of 13.3% to 16.2%, and titratable acid content of 0.22%. The eating quality was excellent. The flesh firmness was 13.7 kg·cm⁻², and the harvesting duration was more than 10 days. The storage capacity was good, and fruits could be stored at room temperature for 10–15 days. The leaf was green with 2–3 reniform leaf glands. The leaf shape was elliptical lanceolate. The showy flower was pink with pollens. In Shijiazhuang, the buds burst in late March, and the flower buds opened in early April. The fruits ripened in mid to late September, about 173 days after blooming. The leaves fell in early November. The tree had strong growing vigor and the tree form was semi-open. Y-shape could be ad-

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opted, with spacing of (2.5–3.0) m × (5.0–6.0) m. The fruit setting rate by self-pollination and natural fruit setting rate was 38.6% and 69.2%, respectively. The pollination trees were not necessary. In commercial production, fruit thinning was necessary to maintain eating and commercial quality, and the distance between fruits should be about 20 cm. The yield should be kept at the level of less than 2000 kg per 666.7 m². The fruit bagging should be recommended after thinning, and the peel would be pure yellow without removing the bag before harvesting. The freezing injury of branches and flower buds had never occurred since 2006. It should be suitable for planting in the central and southern of Hebei Province and similar climatic regions.

Key words: Peach; New cultivar; Meiyang; Late-ripening; Yellow flesh

黄肉桃风味浓郁,色泽艳丽,富含类胡萝卜素、维生素C和膳食纤维等营养物质,深受消费者青睐。近年来,中国鲜食黄肉桃发展迅速,培育出美锦^[1]、金陵黄露^[2]、黄金蜜桃1号^[3]、中桃金阳^[4]等优良鲜食黄肉桃品种。在这些品种中,早熟和中熟品种居多,晚熟品种较少,尤其是果实发育期在150 d以上、可供应中秋节市场的优质鲜食黄肉桃品种更少。此外,离核鲜食桃食用方便,市场认可度高^[5],经济效益显著。河北省农林科学院石家庄果树研究所为选育优质、晚熟、黄肉、离核桃新品种,满足中秋节消费市场的多元化需求,历时17 a(年)选育出鲜食黄肉桃新品种美阳。

1 选育过程

1995年以晚熟桃品种丰白为母本、中熟黄肉罐藏品种金童5号为父本进行杂交,杂交种子经沙藏后播种。1999年杂种实生苗开始结果,其中单株99-1-44综合性状优良。

2004年以99-1-44为亲本,在小蕾期选取果枝进行套袋自交(图1),盛花后3 d去袋,8月中旬果实成熟后取出种核,12月初进行沙藏。2005年4月播种,当年获得一批实生苗。2006年按照1 m×3 m种

植。2007年开始结果。2008年编号为06-2-49东的单株表现为果肉黄色,果个大,外观美丽,肉质硬,风味甜,离核,采收期长,成熟期晚,符合育种目标。2008—2010年连续观察,其性状表现稳定。2011—2020年先后在石家庄市长安区、邢台市宁晋县、保定市顺平县和辛集市进行区试,连续6 a调查,06-2-49东的果实经济性状、丰产性、生长结果习性等表现稳定。与对照品种晚蜜^[6]相比,成熟期晚7~10 d,果肉黄色,硬溶质,离核。2019年命名为美阳(图2),2020年通过河北省林木品种审定委员会审定(良种编号:冀S-SV-AP-007-2020)。

2 主要性状

2.1 植物学特征

树势强健,树姿半开张。1年生枝皮阳面红色,阴面绿色,节间长度2.05 cm。叶片绿色,椭圆披针形,长17.26 cm,宽4.40 cm,叶柄长0.63 cm。叶尖渐尖,叶基楔形,叶缘钝锯齿状,叶面平滑,叶腺肾形、2~3个。花为蔷薇型,粉红色,花瓣5片,花药橘红色,花粉量大,可育,雌蕊比雄蕊高或等高,萼筒内壁橙黄色。

2.2 果实经济性状

果实圆形,果顶凹,缝合线中,两半部对称,梗洼中深;果个大,平均单果质量377 g,大果质量602 g,果实纵径8.33 cm,横径8.46 cm,侧径8.49 cm。果面光洁,茸毛少,底色为黄色,阳面着红色,着色率20%,最高可达50%,外观美丽;果皮较厚,难剥离;果肉黄色,近核处有少量红色素,风味甜,可溶性固形物含量(w,后同)13.3%,最高可达16.2%,可溶性糖含量10.01%,可滴定酸含量0.22%,维生素C含量11.5 mg·100 g⁻¹,有微香,汁液和纤维中多;硬溶质,硬度较大,去皮硬度为13.7 kg·cm⁻²,较耐贮运,室温

丰白 Fengbai × 金童5号 Baby Gold 5



99-1-44

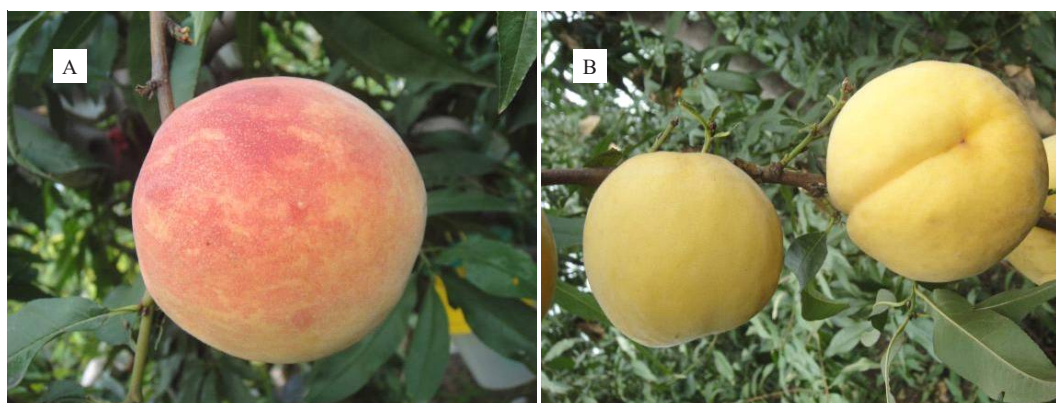


自交 Selfing

美阳 Meiyang

图1 美阳桃的系谱关系

Fig. 1 Pedigree of peach cultivar Meiyang



A. 未套袋果实;B. 套双层袋果实。

A. Unbagged fruit; B. Bagged fruit.

图2 晚熟黄肉桃新品种美阳

Fig. 2 A new late-ripening yellow-fleshed peach cultivar Meiyang

下可贮藏 10~15 d;果实大小整齐,成熟一致,无采前落果,无裂果发生。离核,核小,可食率高(表1)。

2.3 生长结果习性

幼树生长旺盛,早果性强,定植当年可形成花

芽,第2年可开花结果,第3年每666.7 m²产量500 kg以上,盛果期树每666.7 m²产量2250 kg以上。

成花容易,花芽起始节位低,为第1~2节,各类型枝均可形成饱满花芽,花芽类型以复花芽为主。

表1 美阳桃与其亲本和晚蜜桃的主要经济性状比较

Table 1 Comparison of main economic traits among Meiyang, its parent and Wanmi

品种 Cultivar	成熟期 Ripening date	平均单果质量 Average fruit mass/g	果面着色率 Fruit surface coloring rate/%	果肉颜色 Flesh color	肉质 Flesh texture	去皮硬度 Flesh firmness/(kg·cm ⁻²)	风味 Flavor	w(可溶性固形物) Soluble solids content/%	w(可滴定酸) Titratable acid content/%	黏/离核 Stone adherence to flesh
美阳 Meiyang	9月中下旬 Mid to late Sept.	377	20~50	黄 Yellow	硬溶质 Hard melting	13.7	甜 Sweet	13.3~16.2	0.22	离核 Freestone
99-1-44	8月中旬 Mid Aug.	296	60	白 White	硬溶质 Hard melting	7.8	甜 Sweet	12.2~13.0	0.23	离核 Freestone
晚蜜 Wanmi	9月中旬 Mid Sept.	255	30~60	白 White	软溶质 Soft melting	6.1	甜 Sweet	11.2~12.0	0.28	黏核 Clingstone

各类型果枝均可结果,以中、长果枝结果最佳,副梢结果能力也较强。盛果期树长果枝占20.9%,中果枝占28.3%,短果枝占25.4%,徒长性果枝占10.8%,花束状果枝占14.6%。自花结实率和自然坐果率均高,分别达到38.6%和69.2%,丰产性强。

2.4 物候期

石家庄地区,一般3月中旬萌芽,4月上旬盛花,开花整齐,9月中下旬果实成熟,果实发育期173 d左右。11月上旬完全落叶。

2.5 抗逆性和适应性

2006—2023年,美阳桃母树、高接树、定植的幼树和成年大树在石家庄等区试地区均未发生枝干冻

害及花芽受冻现象。2009—2010年、2012—2013年及2023年,石家庄及周边地区部分桃品种枝干受冻严重,而美阳桃表现正常。美阳桃没有特殊的病虫害,适应性强,可在平原、丘陵等地栽培,在壤砂土和壤土生长结果最佳。

3 栽培技术要点

3.1 树形及栽植密度

宜采用Y字形树形,栽植密度以(2.5~3.0)m×(5.0~6.0)m为宜,无需配置授粉树。

3.2 修剪及树势调控

幼树生长势强,可采用冬季短截主枝延长头、夏

季疏剪竞争枝的方法,促进主枝延长生长,迅速扩大树冠,快速成型。之后采用长枝修剪,轻剪缓放,增加中、长结果枝比例,早结果、早丰产。进入结果期后,培养及更新结果枝组,保持树势平衡,丰产稳产。果实成熟前适度疏枝和摘心,促进果实着色和内在品质提高。

3.3 果实管理

为保证果实品质,需通过疏果控制每666.7 m²产量在2000 kg以内。疏果可在花后30 d进行,一般长果枝留2~3个果,中果枝留1个果,2~3个或多个短果枝留1个果,果实在树上均匀分布,间隔20 cm左右。尽量保留粗度在0.5 cm左右枝条上的果实,粗度超过0.5 cm的近水平枝条,留果部位应在中部及上部。定果后,套单层袋或双层袋,生产红色果实应在采前7~10 d去袋,生产全黄果实可带袋采收。

3.4 土肥水管理

桃园行间采用自然生草,草高40 cm以上时进行刈割覆盖或机械碎草,一般每年进行3~4次。基肥在果实采收后施入,盛果期树每666.7 m²施有机肥3000~5000 kg,以充分腐熟的羊粪、牛粪及发酵大豆、饼肥等为主,并加入100 kg腐殖酸钾及适量微量元素肥料,如硼肥、铁肥等。生长中后期追施磷、钾肥。土壤有机质含量在2.5%以上时,可不施追肥。生长前期按需要灌水,生长后期以控水为主,一般不浇水。

3.5 病虫害防治

北方地区,美阳桃主要病虫害有蚜虫、红蜘蛛、梨小食心虫、褐腐病、软腐病等。萌芽前喷施3~5 °Bé石硫合剂,减轻越冬害虫和病菌侵害。花期前后喷施螺虫乙酯、苦参碱等防治蚜虫;红蜘蛛发生初期,喷施阿维菌素等进行防治;采用迷向法防治梨小食心虫。雨后喷施杀菌剂,防治褐腐病、软腐病等病害。采收前15 d,停止使用化学农药。

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