

# 中熟红皮梨新品种‘华蜜’的选育

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**摘 要:** ‘华蜜’是由‘八月红’与‘红香酥’杂交选育出的梨新品种。树势较强, 1 a(年)生枝条向阳面主要颜色为黄褐色, 皮孔密。每个花序7~9朵花, 花蕾浅粉红色, 花药紫红色, 花瓣椭圆形, 花萼外卷, 每朵花4~6枚柱头, 柱头高于花药。嫩叶淡红色, 成熟叶片椭圆形, 叶片边缘具锐锯齿。果实卵圆形或椭圆形, 果形指数1.22, 果个大, 平均单果质量206.0 g。成熟果实果皮底色黄绿色, 盖色浅红色, 果点小、密; 萼片宿存, 萼洼极浅; 果心小, 果肉白色, 肉质极细、脆, 汁液多, 风味甜, 有香气, 可溶性固形物含量12.9%, 果肉硬度6.34 kg·cm<sup>-2</sup>。在辽宁兴城地区, 果实9月上旬成熟。

**关键词:** 梨; 新品种; ‘华蜜’; 中熟; 红皮

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## Breeding report of a new mid-ripening red pear cultivar ‘Huami’

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**Abstract:** ‘Huami’ is a new mid-maturing, red pear cultivar, selected from ‘Bayuehong’ × ‘Hongxiangsu’. The cross was set in 2005 and sowed the hybrid seeds in the spring of 2006. Five hundred and seventy-five seedlings were obtained, and from 2010 some seedlings began to fruit. After selection, the tree code 2005-3-163 had excellent characteristics and was selected as good selection. Then its shoots were grafted on adult trees. The trees had good characteristics of light red peel, very fine flesh, crisp and juicy flesh with aroma. At the same time, the trees were planted in Huludao city, Anshan city of Liaoning province, Tangshan city of Hebei Province and regional trials were conducted. After years of observation and identification, it is considered that the selection has good and stable characteristics. In August 2020, it was registered by the Ministry of Agriculture and Rural Affairs, and the registration number is: GPD pear (2020)210007. The cultivar was named ‘Huami’. The habit of the tree is semi-upright. The predominant color on sunny side of the one-year-old shoots is yellow brown. The length of its internodes is 3.6cm. The shape of flower buds is elliptical. There are seven to nine flowers per inflorescence, and 5 petals per flower. The color of anthers is purple red. The shape of petals is elliptical. The attitude of flower sepals is recurved in relation to corolla. There are four to six styles per flower. The color of young leaves is light red. The shape of adult leaves is elliptical. The average length of leaves is 11.29 cm and the width is 7.25 cm. The incisions of leaf margin have sharply serrate. The average length of petioles is 3.38 cm with stipules. The shape of fruits is oval or elliptical, and the average fruit weight is 206.0 g. The ground color of skin is yellow green with over color of light red. The fruit dots are small and dense. Fruit sepals are persistent and the eye basin is very shallow. The color of flesh is white. The flesh is very fine, crisp, juicy and sweet with aroma. The core is small. The soluble solids content is 12.9%, the titratable acid content is 0.12% and the flesh firmness is 6.34 kg·cm<sup>-2</sup>. The fruits ripen in early September in Xingcheng City, Liaoning Province. Its quality is excellent.

**Key words:** Pear; New cultivar; ‘Huami’; Mid-maturing; Red peel

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红皮梨外观漂亮,深受消费者喜爱。红皮梨资源相对稀少,但在白梨、砂梨、秋子梨、新疆梨以及西洋梨系统中均有发现,其作为育种亲本,已选育出‘红香酥’‘红香蜜’‘满天红’等一批红皮梨品种,并在生产中推广,开展红皮梨种质资源创新与新品种选育也成为目前国内外梨研究领域的重要方向之一<sup>[1-2]</sup>。中国农业科学院果树研究所于2005年开始红皮梨选育研究,并筛选出一批红皮梨品系,‘华蜜’是通过杂交育种育成的中熟、红皮、具香气的优质梨新品种,已通过农业农村部品种登记。

### 1 选育经过

中国农业科学院果树研究所2005年以‘八月红’为母本、‘红香酥’为父本,通过人工授粉进行杂交,获得杂交种子,2006年春季播种,获得杂种实生苗575株,2006年进行定植,2010年开始结果,经筛选,代号为2005-3-163的单株性状表现优异,初选为优株,并进行高接观察,表现为果皮浅红色、肉质极细、脆、有香味,丰产稳产,同时在辽宁省葫芦岛市、鞍山市、河北省唐山市等地种植并开展区域试验。经多年的观察、鉴定,认为该优系性状稳定,表现良好。于2020年8月通过农业农村部品种登记,定名为‘华蜜’,登记编号:GPD梨(2020)210007(图1)。品种系谱图见图2。



图1 梨新品种‘华蜜’

Fig. 1 A new pear cultivar ‘Huami’

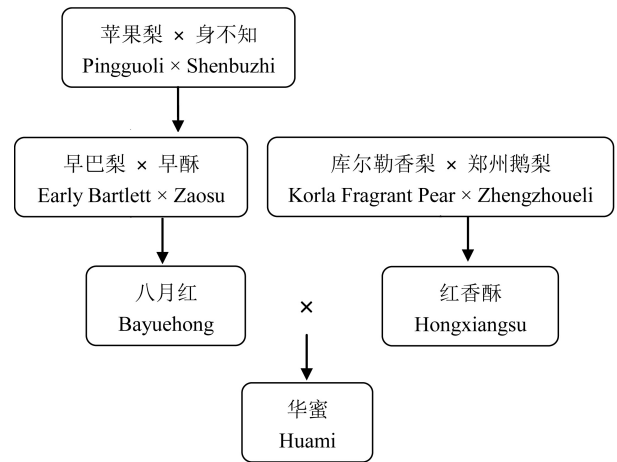


图2 ‘华蜜’系谱图

Fig. 2 Pedigree of ‘Huami’

### 2 主要性状

#### 2.1 植物学特征

参照梨DUS测试指南和梨种质资源描述规范和数据标准<sup>[3-4]</sup>,该品种树姿半直立,1a(年)生枝条直,向阳面主要颜色为黄褐色,节间长度3.66cm,皮孔密。1a生枝上的休眠芽顶端锐尖、贴生,花芽长椭圆形。每个花序7~9朵花,每朵花5个花瓣,花蕾浅粉红色,花药紫红色,花瓣椭圆形,花瓣间相互分离,花萼外卷,每朵花4~6枚柱头,柱头高于花

药。新梢茸毛少,嫩叶淡红色,成熟叶片椭圆形,平展,叶片平均长11.29cm、宽7.25cm,叶片边缘具锐锯齿,尖端渐尖,基部阔楔形,叶柄长3.38cm,有托叶。

#### 2.2 果实经济性状

如表1所示,果实卵圆形或椭圆形,果形指数1.22,果个大,平均单果质量206.0g。成熟果实果皮底色黄绿色,盖色浅红色,无果锈,果点小、密;萼片

表1 ‘华蜜’与主栽品种果实主要经济性状比较

Table 1 Comparison of main economic characters between ‘Huami’ and main cultivars

品种 Cultivar	成熟期 Ripening date	果形 Fruit shape	平均单果质量 Average fruit weight/g	w(可溶性固形物) Soluble solids content/%	果肉质地 Texture of flesh	风味 Flavor
华蜜 Huami	9月上旬 Early September	卵圆形或椭圆形 Oval or ellipse	206	12.9	极细、脆 Very fine, crisp	甜,有香味 Sweet with aroma
早酥 Zaosu	8月中下旬 Mid-late August	圆锥形或卵圆形 Conical or oval	250	11.2	细、脆 Fine, crisp	淡甜 Light sweet
早金香 Zaojinxiang	8月中旬 Mid August	粗颈葫芦形 Gourd shaped with thick neck	237	13.2	细、软 Fine, soft	甜,有淡香 Sweet with aroma

宿存,萼洼极浅;果心小,果肉白色,肉质极细、脆,汁液多,风味甜,有香气,可溶性固形物含量 12.9%,果肉硬度  $6.34 \text{ kg} \cdot \text{cm}^{-2}$ ,品质上。

### 2.3 生长结果习性

‘华蜜’抗寒性较强,树势较强,成枝力中等,萌芽率高。以中长果枝结果为主,坐果率高。小苗定植后 3~4 a 开始结果,5 a 后进入盛果期;大树高接换种后,第 2 年可恢复部分产量,第 3 年可大量结果,丰产稳产。

### 2.4 物候期

在辽宁兴城地区,3 月底萌芽,4 月底至 5 月初盛花,果实 9 月上旬成熟,10 月底至 11 月上旬落叶,果实发育期 120 d 左右,营养生长期 210 d 左右。

### 2.5 抗性与适应性

通过田间接种黑星病菌,发现‘华蜜’抗梨黑星病;较抗寒。适宜在辽宁葫芦岛、鞍山、河北等地区及相似生态区栽培。

## 3 栽培技术要点

### 3.1 建园

选择土壤条件良好、有浇水条件、交通便利的地块建园,按栽植方式确定株行距,以  $(1.5\sim 3)\text{m} \times (3\sim 4)\text{m}$  为宜。

### 3.2 花果管理

需配置授粉树,可选用‘早酥’‘华酥’‘黄冠’‘华金’等品种。花后 15~20 d 进行疏果,每花序留 1 个发育良好的幼果,合理负载,以保证果实品质。

### 3.3 整形修剪

树形可采用纺锤形或小冠疏层形。幼树以轻剪、缓放为主,根据采取的树形培养各级骨干枝和结果枝组。盛果期以回缩、长放为主,保持结果枝与营养枝的比例为 1:3 左右。

### 3.4 肥水管理及病虫害防治

施肥以有机肥为主,化肥为辅,适时灌、排水,保持良好的土壤墒情,上冻前、萌芽前、开花前、果实膨大期、落叶后果园需灌足水。病虫害防治以农业防治和物理防治为基础,提倡生物防治,注重病虫害预测报,以便按时、合理使用农药,保护天敌。

### 参考文献 References:

- [1] 薛华柏,王芳芳,杨健,王龙,王苏珂,苏艳丽,乔玉山,李秀根. 红皮梨研究进展[J]. 果树学报,2016,33(S):24-33.  
XUE HuaBai, WANG Fangfang, YANG Jian, WANG Long, WANG Suke, SU Yanli, QIAO Yushan, LI Xiugen. A review of research advances in red skin pear[J]. Journal of Fruit Science, 2016,33(S):24-33.
- [2] 陈学森,王楠,张宗营,冯守千,陈晓流,毛志泉. 仁果类果树资源育种研究进展 I:我国梨种质资源、品质发育及遗传育种研究进展[J]. 植物遗传资源学报,2019,20(4):791-800.  
CHEN Xuesen, WANG Nan, ZHANG Zongying, FENG Shouqian, CHEN Xiaoliu, MAO Zhiquan. Progress on the resource and breeding of kernel fruits I: Progress on the germplasm resources, quality development and genetics and breeding of pear in China[J]. Journal of Plant Genetic Resources, 2019, 20(4): 791-800.
- [3] 王斐,方成泉,王凤华,姜淑苓,欧春青,林盛华,周海涛,郝彩环,徐岩,唐浩,陈秋菊,马力. 植物品种特异性、一致性和稳定性测试指南 梨:GB/T 19557.30-2018[S]. 北京:中国标准出版社,2018.  
WANG Fei, FANG Chengquan, WANG Fenghua, JIANG Shuling, OU Chunqing, LIN Shenghua, ZHOU Haitao, HAO Caihuan, XU Yan, TANG Hao, CHEN Qiuju, MA Li. Guidelines for the conduct of tests for distinctness, uniformity and stability: pear (*Pyrus* spp.): GB/T 19557.30-2018[S]. Beijing: China Standard Press, 2018.
- [4] 曹玉芬. 梨种质资源描述规范和数据标准[M]. 北京:中国农业出版社,2006.  
CAO Yufen. Descriptors and data standard for pear (*Pyrus* spp.) [M]. Beijing: China Agriculture Press, 2006.