

晚熟优质梨新品种蜜玉的选育

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摘要:蜜玉是以蜜梨为母本、黄冠为父本杂交选育出的晚熟优质梨新品种。树势强, 树姿开张, 1年生枝条向阳面颜色为黄褐色。嫩叶颜色黄绿色, 成熟叶片卵圆形, 叶缘锐锯齿状。每个花序的花朵数为5~7枚, 花瓣粉红色, 柱头高于花药, 花药紫红色。果实圆形, 果面金黄, 平均单果质量258.42 g, 果心小。果肉白色, 质地细腻松脆, 多汁, 风味甜、香, 可溶性固形物含量(w)14.0%, 鲜食品质上等。果实耐贮藏, 冷藏条件下可贮藏180 d以上。在河北昌黎地区(E 118°45'~119°20', N 39°22'~39°48')9月中下旬成熟, 果实发育期150 d左右。萌芽率高、成枝力强, 花芽较易形成, 早果丰产性好, 适宜纺锤形或圆柱形栽培。蜜玉可在河北省梨产区及与此生态类型相似的地区种植推广。

关键词:梨; 新品种; 蜜玉; 晚熟

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Breeding report of a new pear variety Miyu

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Abstract: Miyu is a new late ripening pear variety with high-quality bred by Changli Institute of Pomology, Hebei Academy of Agriculture and Forestry Sciences from a crossing between Mili and Huangguan (*Pyrus bretschneideri*) made in 2008. The hybrid individual 09-09-038 was initially selected as a superior individual in 2013 for its perfect appearance and high quality. The field trials were made at three sites of Hebei province (including Changli county, Luannan county and Botou city) from 2014 to 2019. It was finally examined and named as Miyu in 2020. The young trees are vigorous, the posture of the tree is open. The annual branches are yellow-brown in color. The leaf buds are slanting. The color of tender leaves is yellow green. The mature leaves are ovate with serrate. There are 5-7 flowers in each inflorescence. The flowers are pink, and the relative position of petals is overlap, the position of stamen with many pollens is lower than that of stigma. The fruit shape is globose. The ground color of the fruit is yellow. The average single fruit weight is 258.42 g. The fruit length and diameter are 6.366 cm and 7.430 cm. The flesh is white, crispy, juicy and tastic. The fruit texture is fine with, few stone cells. The fruit core is small. The content of total soluble solids is 14.0%. The flesh firmness is 5.95 kg·cm⁻². The quality is excellent. The cold storage life of the fruit is more than 180 days. The trees is precocious. The fruits mainly bear on the short branches. The fruit setting rate is high. The ability of continuous fruiting is strong. The yield is 3420 kg per 666.7 m² in the seventh year at a density of 1 m×4.5 m. In Changli area of Hebei province, the flowering time is in mid-April and the fruit maturing time is in middle-late September. The fruit development period is around 150 days, and vegetative growth lasts about 240 days. The variety has good resistance to stresses and good environmental adaptability. The suitable pollinizer cultivars are Xuehuali and Yali. It is suitable for close planting with spindle and cylindrical shape.

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Miyu is suitable for planting in Hebei province, and in pear producing areas with ecological conditions similar to Hebei.

Key words: Pear; New variety; Miyu; Late maturing

河北省作为重要的梨产区,梨的栽培面积、产量和出口量长期位居全国前列,在水果产业中占有重要地位。

河北省的梨栽培品种以晚熟的鸭梨和雪花梨为主。近几年,由于产业结构调整,黄冠、新梨7号、玉露香等早中熟梨品种被消费者所接受,市场反应较好。国内的育种工作者所选育出的、适宜河北省地区种植的梨新品种如秋光^[1]、炼玉^[2]、甘梨2号^[3]等,给果农提供了更多的种植选择,优化着河北省梨品种结构,不断满足市场多元化需求,促进河北省梨果产业健康稳定的发展。

2008年以来,河北省农林科学院昌黎果树研究所外观和内在品质综合性状优良、香味浓郁、晚熟耐贮为育种目标,选用蜜梨(品质优良、肉质细、耐贮)为母本、黄冠(优质)为父本进行杂交,历经12 a(年)的选育研究,筛选育成了优质、丰产、香味浓郁、耐贮的晚熟梨新品种蜜玉(图1)。



图1 晚熟优质梨新品种蜜玉
Fig. 1 A new pear variety Miyu

1 选育经过

2008年4月下旬进行人工有性杂交,9月下旬采集成熟的授粉果实并收集杂交种子,2009年3月将

层积处理后的种子播于温室营养钵内进行培育,5月下旬定植于河北省农林科学院昌黎果树研究所孔庄基地内,株行距为0.6 m×2 m。2013年对杂交群体进行初选评价,其中09-09-038单株果实因外形美观、风味香甜可口等特点定为初选优系。2014年将09-09-038高接扩繁,并以鸭梨为对照品种进行复选。同年,在河北昌黎、滦南、泊头等地高接,进行区域适应性试验。经过多年观察测试,09-09-038表现出了早果丰产性好、外观漂亮、性状优良、适应性强等特点。2020年通过河北省林木品种审定委员会审定,定名为蜜玉(良种编号:冀S-SV-PB-003-2020)。

2 主要性状

2.1 植物学特征

蜜玉树势强,树姿开张,1年生枝直立,节间平均长度5.501 cm,向阳面颜色黄褐色,休眠叶芽顶端钝尖、斜生。嫩叶颜色黄绿色,叶片相对于枝向上着生,成熟叶片形状卵圆形,叶缘锐锯齿状,长度10.576 cm,宽度6.731 cm,叶片尖端渐尖,基部形状圆形,叶柄长度4.002 cm,叶柄基部无托叶。花芽顶生,长度中等。每个花序的花朵数为5~7枚,花冠平均直径3.735 cm。花瓣粉红色,重叠,柱头高于花药,花粉较多,花药紫红色。

2.2 果实经济性状

蜜玉果实圆形,果面金黄,平均单果质量258.42 g,平均纵径6.366 cm,平均横径7.430 cm,果梗长度3.337 cm,果梗粗度0.285 cm,梗洼深度中,萼片脱落,萼洼深,果心小、纺锤形。果肉白色,质地细腻松脆,多汁,风味甜、香,可溶性固形物含量(w)14.0%,鲜食品质上等(表1)。果实耐贮藏,在室温条件下可存放20 d左右,冷藏条件下可贮藏180 d以上。蜜玉与对照品种鸭梨相比,果形端正、外观美,果心小,可食率高,肉质细脆香甜,风味浓郁。

2.3 生长结果习性

蜜玉萌芽率高,成枝力强,以短果枝结果为主,花芽较易形成,坐果率高,早果丰产性好,无采前落果和裂果现象。

定植后3 a有经济产量,5 a开始丰产,6 a达到

表1 蜜玉与对照鸭梨的果实经济性状比较

Table 1 Comparison of main economic characteristic of Miyu and Yali

品种 Cultivar	单果质量 Average weight per fruit/g	果实横径 Fruit diameter/cm	果实纵径 Fruit length/cm	果实形状 Fruit shape	果实底色 Ground color	果锈数量 Amount of russeting	萼片状态 Persistence of sepals	萼洼深度 Depth of eye basin
蜜玉 Miyu	258.42	8.054	7.352	圆形 Globose	黄色 Yellow	少 Few	脱落 Deciduous	深 Deep
鸭梨 Yali	243.94	7.690	8.837	倒卵形 Obovate	绿黄色 Green yellow	中 Medium	脱落 Deciduous	深 Deep

品种 Cultivar	果心大小 Fruit core size	果肉硬度 Flesh firmness/ (kg·cm ⁻²)	果肉颜色 Flesh color	果肉质度 Flesh texture	果肉类型 Flesh texture type	石细胞数量 Amount of stone cells	风味 Flavor	香气 Aroma	w(可溶性 固形物) Soluble solids content/%
蜜玉 Miyu	小 Small	5.95	白色 White	细 Fine	脆 Crisp	少 Light	甜 Sweet	香 Aromatic	14.0
鸭梨 Yali	中 Medium	6.18	白色 White	细 Fine	脆 Crisp	少 Light	酸甜 Sour-sweet	微香 Weakly aromatic	10.9

丰产稳产,在1 m×4.5 m的栽植密度下,平均单株产量控制在23 kg左右,折合每666.7 m²产量约为3420 kg。

2.4 物候期

蜜玉属晚熟品种,在河北昌黎地区,3月中下旬花芽萌动,4月上旬叶芽萌动,4月中旬初花,4月下旬盛花,花期10~12 d。9月中下旬果实成熟,11月中旬落叶。果实发育期约为150 d,营养生长期约为240 d。

2.5 适应性与抗逆性

2014年以来,蜜玉在河北昌黎、滦南、泊头等梨产区栽培均表现出早果丰产、品质优良等特点,适应性强。抗盐碱,耐瘠薄,较抗早春低温寒流。

3 栽培技术要点

3.1 选址建园

选择土壤有机质含量较高、有灌溉、交通方便的地块建园,可采用(1~3)m×(3~4.5)m株行距。园内配置授粉树,品种可选择雪花梨、鸭梨等,蜜玉与授粉树配置比例为4~5:1。

3.2 整形修剪

蜜玉的整形方式以纺锤形或圆柱形为主。由于树势较旺,幼树期以疏剪枝条为主,多缓放,少短截回缩,同时配合人工拉枝等技术开张树姿,开张角度70°~80°为宜。树高控制在3~3.5 m,在生长期进行摘心、扭梢等,缓和生长势。

3.3 肥水管理

基肥于每年秋季落叶前施入,主要以腐熟的羊粪、牛粪等有机肥为主,施肥后结合深翻。在生长发育期进行追肥:花前追肥以硫酸铵等速效性氮肥为主,促进新梢生长;中期追肥可施入适量的三元素复

合肥,增加树体养分,促进花芽分化;果实生长发育后期以钾肥为主,控制氮肥的施入量,以提高果实品质。灌溉视生长季梨园土壤墒情而定,漫灌、滴灌均可。

3.4 病虫害防治

蜜玉病虫害防治以梨小食心虫、梨木虱、黄粉蚜、轮纹病等为主。3月份梨树萌芽前喷布4°Be石硫合剂1次;花后喷10%吡虫啉2000倍液和70%甲基托布津1500倍液等;坐果后至采收前交替使用25%灭幼脲、22.4%螺虫乙酯、50%多菌灵等。化学防治可与物理防治、生物防治相结合,防治效果更好。

4 综合评价与应用前景

蜜玉为晚熟优质梨新品种,果形端正,整齐度高,色泽金黄,果肉细腻,松脆多汁,香甜可口,综合品质优良,兼具丰产稳产、适应性与抗逆性强等特性,发展前景广阔。可在河北省梨产区及与此生态类型相似的地区种植推广。

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