

晚熟杏新品种‘金硕杏’的选育

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摘要: ‘金硕杏’是由‘金寿杏’×‘供佛杏’杂交选育出的杏晚熟新品种。果实卵圆形;果皮底色为黄色,片红;果肉黄色,肉质细腻,纤维中,汁液多;果个大,平均单果质量85 g,最大单果质量达134 g;离核;核仁味道苦。可溶性固形物含量(w,后同)15.5%,可滴定酸含量0.89%。果实成熟期晚,张家口地区7月中下旬成熟,发育期100 d左右;萌芽力强,成枝力中等。抗寒性强,抗旱性好,病虫害少。在我国北方地区均可栽培,定植第2年见果,丰产性好,第6年产量19 048.5 kg·hm⁻²。

关键词: 杏;新品种;‘金硕杏’;晚熟

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Breeding report of a new late-ripening apricot cultivar ‘Jinshuo’

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Abstract: ‘Jinshuo’ is a late ripening, table apricot with excellent appearance. The seeds were derived from a cross of ‘Jinshou’ × ‘Gongfo’ in 2009 at an experimental field. Through artificial hybridization pollination in 2009, 46 hybrid seeds were produced. ‘Jinshuo’ was initially selected in 2012 for its beautiful shape and late ripening time. After its successful participation in regional adaptability testing in two cities (Baoding and Chengde) in 2017, it was finally selected in December 2019 winning the new plant variety right of the State Forestry and Grassland Administration. The tree is vigorous with circular crown and half open tree gesture. The young branches are green or reddish-brown in the direction of sunlight. The leaves are wide round or round with a long tail tip, 6.6 cm long, 5.6 cm wide, sharply serrated. The flowers are white with a diameter of 2.8 cm; they feature a calyx that stands out as it is reddish purple, resembling a flower after the flower fall; and they hardly fall off the tree. The fruit of ‘Jinshuo’ is mainly oval and it has a yellow peel and some flesh on the surface. Its shape is asymmetrical and the suture, shallow. Its flesh is yellow, soft solute, rich in juice, and with fine texture. The pulp is separated from the core. The average fruit weighs 85 g, but it can weigh up to 134 g. The content of soluble solid is 15.5% and the content of titratable acid is 0.89%; excellent quality. The fruit development period is 100 d and it matures mid-July in Zhangjiakou, Hebei. It has strong sprouting ability and medium branching ability. It is resistant to cold and drought; e.g. it is not damaged even in freezing temperatures as low as -3 °C and it is only threatened by few diseases and insects or pests. Suitable cultivation area is in northern China; this variety can bear fruits next year after being planted. After the third year it gradually entered the high production period and the output in the sixth year was 19 048.5 kg·hm⁻². For the orchards various types of soil conditions can be chosen regardless of the soil pH; spacing within and

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between the rows is (2-3) m×4 m. The configuration of pollinizer should select fresh apricot varieties with large amount of pollen and consistent flowering period, and the proportion of allocation accounts for 15%-20%. With respect to shaping and pruning, it is suitable to adopt spindle tree shape, remove the upright branches and vigorous long branches on the back on time, and ensure adequate ventilation and light transmission conditions. The cultivation mode of planting grass between rows and covering plastic film in rows can effectively reduce the frequency of watering and fertilizing.

Key words: Apricot; New cultivar; ‘Jinshuo’; Late-ripening

杏 (*Armeniaca vulgaris* Lam.) 是蔷薇科杏属植物, 原产我国, 距今已有3 500 a的栽培历史^[1]。目前我国栽培的杏品种比较丰富, 但生产上仍然缺乏优质丰产的晚熟品种, 有性杂交作为果树育种技术中简单易行的方法, 许多新品种都通过此方法选育而成, 比如‘国强’^[2], ‘凌浓2号’^[3]等, ‘金硕杏’就是通过有性杂交经过十年时间培育出的优质、晚熟、抗冻、丰产新品种。

1 选育经过

2009年春以‘金寿杏’为母本、‘供佛杏’为父本进行杂交, 收获杂交种46粒, 同年播种出苗31株, 2010年秋季定植于杂交后代复选圃中, 2012年见果, 经调查发现1株晚熟、果实外形美观、个大、口感酸甜适中的植株标记为‘鲜杏’。观察1 a(年)后性状稳定, 于2014年剪取接穗进行嫁接繁殖, 2015年在新品园中定植39株, 第2年见果, 第3年逐渐进入丰产期, 第6年产量达到19 048.5 kg·hm⁻²。从2017年开始在保定、承德地区进行区域试验表现良好。2019年12月获得国家林业和草原局植物新品种权, 定名为‘金硕杏’(图1)(证书号:20190298)。



图1 ‘金硕杏’果实
Fig. 1 Fruit of ‘Jinshuo’

2 主要性状

2.1 植物学特征

‘金硕杏’植株生长势中等, 树姿半开张, 成枝力中等。1 a生枝绿色, 阳面红褐色, 多年生枝条灰紫色。花芽的着生位置主要为花束状果枝和1 a生果枝。叶形为阔圆或圆, 叶片平均长度6.6 cm, 宽度5.6 cm, 叶柄长2.7 cm; 叶面光亮, 中绿; 叶尖长尾尖; 叶基钝圆形; 叶缘锯齿尖; 叶柄蜜腺数2~3个; 叶片状态稍内卷。花单瓣, 花瓣下部颜色白; 花萼紫红色, 落花后花萼不容易掉落, 远看如紫红色花朵(图2)。

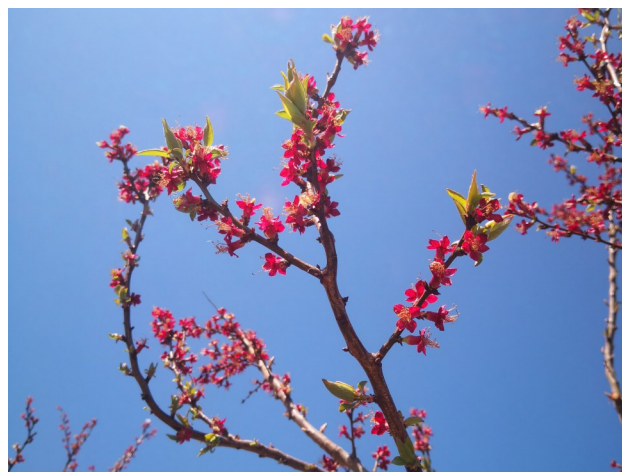


图2 ‘金硕杏’落花后
Fig. 2 After the fall of ‘Jinshuo’

2.2 果实经济性状

果实卵圆形; 果皮底色为黄色, 片红, 有红点; 果实不对称; 缝合线粗浅; 果顶形状圆凸; 果顶尖; 果面光滑; 果皮有茸毛; 果肉黄色, 果肉纤维中等, 肉质细腻, 汁液多, 可溶性固形物含量(w, 后同)为15.5%, 可滴定酸含量为0.89%; 果实大, 平均单果质量85 g, 最大单果质量134 g; 果实离核; 果核形状圆, 苦仁(表1)。

2.3 生长结果习性

‘金硕杏’萌芽力强, 结实早, 定植后第2年就开

表1 ‘金硕杏’与父本母本性状比较
Table 1 Comparison of characters between ‘Jinshuo’ and its male parent and female parent

品种 Cultivar	成熟期 Maturity	果实形状 Fruit shape	花萼颜色 Calyx color	叶背茸毛 Dorsum villi	果肉颜色 Flesh color	杏仁味道 Almond flavor	单果质量 Average mass per fruit/g	w(可溶性固形物) Soluble solids content/%	w(可滴定酸) Titratable acid content/%
金硕 Jinshuo	晚 Late	卵圆 Oval	紫红色 Purplish red	中 Middle	黄色 Yellow	苦仁 Bitter kernel	85	15.5	0.89
金寿 Jinshou	中 Middle	椭圆 Ellipse	红色 Red	稀 Rare	黄色 Yellow	苦仁 Bitter kernel	83	15.1	0.91
供佛 Gongfo	中 Middle	圆 Round	红褐色 Reddish brown	稀 Rare	浅黄色 Light yellow	甜仁 Sweet kernel	81	14.6	0.84

始挂果,第3年逐渐进入丰产期,丰产稳产性好,第6年产量达到19 048.5 kg·hm⁻²。结果枝组主要以短果枝和花束状果枝为主。

2.4 物候期

张家口地区花芽萌动期在3月下旬,初花期在4月上旬,果实成熟期在7月中下旬,果实发育期100 d左右。

2.5 抗逆性及栽培适应性

‘金硕杏’抗寒性强,-3℃的低温基本无影响;耐旱、耐瘠薄能力强,能够适应多种类型的土壤条件,对土壤的酸碱度要求不严,在我国北方地区均可栽培。

3 栽培技术要点

3.1 授粉树配置与建园定植

‘金硕杏’自交不亲和,应选择花粉量大、花期一致的鲜食杏品种作为授粉树,配置比例为15%~20%。园址应选择土层较厚、肥力中等及以上的地块,不宜在核果类果树迹地上建园,避开低洼地、重盐碱地和霜冻易发区。山地建园应选坡度平缓的阳坡、半阳坡、半阴坡。栽培密度可根据土壤肥力和管理状况适当调整,一般为(2~3)m×4m。

3.2 整形修剪

‘金硕杏’树势中等,树姿半开张,适宜的树形结构为纺锤形。该树形要求有较强壮的直立中心干,树体高度在2.4~3m。中心干上距地面60cm以内不留枝,在中心干上直接着生主枝,各主枝保持单轴延伸,长度在1.5m以内,各主枝间的距离应保持在

5~8cm,且均匀分布在中心干周围。主枝枝径不得超过中心干径的1/2,主枝上各侧枝枝径不得超过主枝枝径的1/2。为扩大树冠,增加枝量,应对主枝延长梢进行适度回缩,一般在1/5~1/3处回缩为宜。此外,应注意及时疏除背上直立枝、旺长枝,改善通风透光条件。

3.3 花果及水肥管理

果实密度太大时,及时疏果。秋季施肥以有机肥为主,追肥前期以氮、磷肥为主,果实膨大期以磷、钾肥为主。采用行间生草+行内覆膜的栽培模式可有效减少浇水次数和施肥量。

3.4 病虫害防治

‘金硕杏’病害主要有杏疔病和流胶病,虫害主要有蚜虫、食心虫、红蜘蛛等,应及时防治。

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