

# 黄肉猕猴桃新品种金实4号的选育

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**摘 要:**金实4号猕猴桃是通过杂交育种选育出来的黄肉猕猴桃新品种。果实卵形,无萼片宿存情况,皮孔中等程度突出,果皮灰褐色,有中等量的短绒毛均匀分布在果皮表面、颜色呈灰褐色、易脱落;平均单果质量98.76 g,最大单果质量150 g;可溶性固形物含量(w,后同)16.1%,干物质含量19.21%;可溶性糖含量10.79%,总酸含量1.10%,维生素C含量171.33 mg·100 g<sup>-1</sup>。果实生长期150 d左右,在四川德阳地区9月下旬成熟,属中熟品种;花序类型属于二歧聚伞花序,每花序有3朵花,萌芽力和成枝力都较强。属于中高抗溃疡病品种。果实耐贮藏,在0~2℃下可存放120~150 d。适应性强,一般年平均气温>15℃,海拔1000 m以下,土壤微酸性,透气性良好的土壤地区均可栽培;第3年开花结果,丰产性好。

**关键词:**猕猴桃;新品种;金实4号;黄肉

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## A new yellow-fleshed kiwifruit cultivar Jinshi 4

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**Abstract:** Jinshi 4 is a new yellow-fleshed kiwifruit cultivar selected from crossbreeding. The seedling was derived from a cross between Jinshi 1 and SF0813m in 2009 at Shifang Kiwifruit Base of Sichuan Province. The vine vigor is strong. The new canes have short hairs of medium length. The annual canes are thick and the epidermis is medium coarse and dry. The canes have white short spindle lenticels. The volume of bud socket and bud pore of annual cane is large. There is strong anthocyanin coloring set on the front of the petiole of the young leaf. The tip of the young leaf was tail-shaped and open at the base. The shape of the adult leaf is heart-shaped, the leaf edge is sawtooth-wavy, there is no or very thin fuzz on the front and weak corrugation, the front of the adult leaf is dark green, and the back is light green. The adult leaf is large. Fruit shape is ovate without sepals, the lenticels are moderately prominent, the peel is gray-brown with a moderate amount of short hairs evenly distributed on the surface of the peel, the color is gray-brown, and it is easy to fall off. The average fruit weight is 98.76 g with maximum fruit weight being 150 g. Soluble solids content is 16.1%, dry matter, total sugar and total acid contents are 19.21%, 10.79% and 1.10%, respectively, and vitamin C content is 171.33 mg·100 g<sup>-1</sup>. Fruit quality is excellent. The fruit development period is 150 d, it matures in late September in Deyang area of Sichuan province and it's a mid-season-mature variety. The inflorescence type belongs to the dichotomous cyme, each inflorescence has 3 flowers, and the bud break and cane growing ability is strong. It is medium-to-high resistant to PSA, and the occurrence of brown spot and scale insects is slight. The resistance and adaptability are strong. The fruit has very long storage-life, and cold storage life is 120–150 days. Suitable cultivation area is relatively extensive with annual average temperature >15℃, altitude below

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1000 meters, slightly acidic soil and well-drained land. It can flower and bear fruit in the third year after establishment with good yield.

**Key words:** Kiwifruit; New cultivar; Jinshi 4 ; Yellow-fleshed

猕猴桃按照果肉颜色分为红肉、黄肉和绿肉猕猴桃,黄肉猕猴桃因果面无毛或少毛、果肉金黄颜色和风味浓郁等优良品质备受消费者青睐。四川省自然资源科学研究院从事猕猴桃研究已经有40余年的历史,培育了世界上首个具有自主知识产权的红肉猕猴桃品种红阳<sup>[1]</sup>,后续又培育了红什1号<sup>[2]</sup>、红什2号<sup>[3]</sup>、金什1号<sup>[4]</sup>等多个猕猴桃新品种。为了优化猕猴桃品种结构、提升猕猴桃育种水平,提高市场竞争力,又培育了黄肉猕猴桃新品种金实4号,该品种具有果实大、产量高、干物质含量高、口感好、中高抗溃疡病等突出优点。

## 1 选育过程

金实4号是利用杂交育种方法育成的黄肉猕猴桃新品种。2009年5月,在四川什邡猕猴桃研究基地利用金实1号猕猴桃作为母本材料,SF0813m作为父本材料进行杂交,2009年9月获得杂交种子,2010年2月播种获得杂交苗,2011年2月在四川什邡猕猴桃研究基地栽种杂交苗1000株,2014年杂交苗开花结果。2015年在什邡猕猴桃研究基地杂交园20-12-11C位置上选育出1株优良雌性单株,2015年年底将该优良单株高接,2016—2018年开展遗传稳定性鉴定、品种新颖性鉴定、生产栽培试验等,2018年11月申请农业农村部品种权保护(品种名称暂定金实4号),2021年通过四川省非主要农作物品种认定委员会的认定(认定编号:川认果2021004)(图1)。

## 2 主要性状

### 2.1 植物学特征

金实4号为四倍体雌性品种,树势强;新梢有中等长度的短茸毛,新梢生长点有较强的花青素着色;1年生枝条粗约11 mm,阳面灰褐色、表皮中等粗糙度;枝干有短梭形皮孔、皮孔有中等大小和数量、颜色白色;1年生枝芽座的体积大,无1年生枝芽盖,芽孔的体积大;叶痕平,1年生枝髓是实髓;幼叶叶柄正面有强的花青素着色,幼叶叶尖的形状呈尾状、基部形状开;成叶形状呈心形,叶片边缘锯齿形状呈波

状,正面无或有极稀的茸毛、弱的波皱度,成叶正面深绿色、背面浅绿色,成叶叶片长约13.1 cm、叶片宽约13.8 cm、叶柄长约10.13 cm。花序类型属于二歧聚伞花序,花柄长约4.1 cm、花萼数量大多数都有6个、花萼颜色呈绿色,花的直径约3.9 cm,花瓣基部相接排列、顶部波皱度弱、近轴侧颜色单色、主要呈绿白色,橙黄色花药、白色花丝和花柱、平均每朵花约42.6根花柱、花柱大多呈不规则状态。

### 2.2 果实经济性状

金实4号果实平均单果质量98.76 g,最大单果质量150 g,可溶性固形物含量(w,后同)16.1%,干物质含量19.21%;果实卵形,果实横切面椭圆形,果实有轻微的花萼环,果肩呈方形;果实纵径约6.5 cm,



图1 黄肉猕猴桃新品种金实4号

Fig. 1 The new yellow-fleshed kiwifruit cultivar Jinshi 4

果实横径约5.8 cm,果柄长4.4 cm;萼片无宿存情况,皮孔中等程度突出,果皮灰褐色,有中等量的短茸毛均匀分布在果皮表面、颜色呈灰褐色、易脱落;果实后熟后果肉黄色,后熟后果皮的剥离难易程度适中,相对果心中等大小,果心横切面椭圆形、黄白色。

### 2.3 生物学特性

在四川德阳地区,金实4号2月下旬进入伤流期,3月下旬进入萌芽期,4月中旬展叶,4月下旬开花,9月下旬果实成熟,果实生长期150 d左右,属中熟品种。果实耐贮藏,在0~2℃下可存放120~150 d。盛果期平均每666.7 m<sup>2</sup>产量1800 kg左右(表1)。

表1 金实4号与对照品种生物学特性比较

Table 1 Comparison of biological characteristic between Jinshi 4 and controls

品种 Cultivar	萌芽期 Germinating date	开花期 Blooming date	果实成熟期 Ripening date
金丰 Jinfeng	3月下旬 Late March	4月下旬 Late April	10月上中旬 Early to middle October
金实4号 Jinshi 4	3月中旬 Middle March	4月中旬 Middle April	9月下旬 Late September

### 2.4 抗性

经过连续多年多点试验观测,发现金实4号属于中高抗溃疡病猕猴桃品种,褐斑病、介壳虫的发生也较轻,总体抗性较强、适应性强。

## 3 栽培技术要点

根据区域性试验的结果,金实4号品种适应性强,对土壤、气温、海拔高度、降雨量适应范围广,一般年平均气温>15℃,海拔1000 m以下,土壤微酸性,透气性良好的土壤地区均可栽培。选择土壤疏松肥沃、富含有机质、灌溉方便、排水良好、背风向阳、土壤pH值5.5~6.5,海拔1000 m以下,年平均气温15℃以上地区建园。全园深翻60 cm,施有机肥

进行土壤改良。于早春或晚秋两季栽苗,栽植密度:株距×行距=3 m×4 m,666.7 m<sup>2</sup>栽植56株。配金实4号专用雄株,雌雄比例为8:1。以“T”形架和大棚架整形,少抹芽多留长枝,8月下旬后除去晚秋梢。冬季修剪时应疏除过密枝、弱枝,留强壮的长枝,每棵树留20~25个结果母枝。一年施肥5次,即早春肥、展叶抽梢肥、花前肥、壮果肥和采果后肥。

## 4 应用前景

金实4号为优质早中熟猕猴桃新品种,具有果实大、产量高、可溶性固形物和干物质含量高、口感好、果肉黄色等突出优点,适宜在四川省及相同生态区域推广。

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