

大果型早熟鲜食枣新品种‘早秋红’

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摘要: ‘早秋红’是由山东地方品种‘大铃枣’中选出的大果型优良早熟鲜食枣新品种。果实倒卵圆形或近圆形,果皮鲜红色,果肉白色,皮薄肉细,汁液多,味甜;平均单果质量为18.5 g,最大单果质量为25.5 g;每个果实常含1粒不饱满的种子。可溶性固形物含量(ω ,后同)为30.2%,总酸含量为0.61%,为早熟品种中的佳品;白熟期果实可做蜜枣,晶莹剔透,品质极优。果实发育期80~85 d,在山东8月底成熟;每个花序着花10~13朵,花夜开型,花药中无花粉。裂果轻。适宜在山东省及生态条件类似区域栽培,当年可开花结果,早实丰产。

关键词: 枣;新品种;‘早秋红’;早熟;鲜食

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A new jujube cultivar ‘Zaoqihong’

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Abstract: ‘Zaoqihong’ is a new jujube cultivar selected from Shandong local variety ‘Dalingzao’, which is characterized by big fruit, excellent quality, early maturity and fresh-eating. It was initially selected in 1983 for early ripening time, big fruit, light fruit cracking, and excellent quality. Its spring twigs were selected in 1984 as scion wood for establishing a top-grafting orchard. 16 years’ observations from 1984—2000 demonstrated that the superior lines had fine and stable character. Variety comparative test and regional test were carried out at Taian, Laoling, Wudi in 2001, which were found good comprehensive characters and wide adaptability. Then the superior lines were named ‘Zaoqihong’ and approved by provincial committee. The number is ‘Lu S-SV-ZJ-033-2016’. The tree is vigorous with medium vigor, semicircular crown and open tree gesture. Young branches are red-brown in color and less waxiness. Bearing branches are 21.5 cm long. The acupuncture is underdevelopment. Leaves are ovate to lanceolate, acuminate, 6.3 cm long, 2.5 cm wide, bluntly serrated. Flower is white, 0.6-0.8 cm across, open at night. Honey palte is yellow. Filament is short. Anther has no pollen. Fruits is mainly inverted ovoid or round, has fresh-red pell and light ware surface. Its flesh is white. It has thin skin, juicy flesh and sweet taste. The average fruit weight is 18.5 g, maximum fruit weight is 25.5 g, and 1 seed per fruit. The content of soluble solid is 30.2%, the content of total acid is 0.61%. The fruit in white ripe season possesses can be making candied jujube, which is crystal clear and good qualities. The fruit development period is 80-85 d and it matures at the end August in Shandong area. ‘Zaoqihong’ have 10-13 inflorescences. It is resistant to fruit cracking. The cultivar is suitable for the Shandong Province and other regions with similar ecological conditions. It can bear fruits in the first year after planted, has high yield potential. Orchard can choose wide jujube or jujube as stock, grafting propagation, spacing in the rows and spacing between rows are (1.5-3) m×(3-5) m, natural roundhead shape or trunk thin layer shape, pinching at florescence.

Key words: Jujube; New cultivar; ‘Zaoqihong’; Early maturity; Fresh-eating

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近年来,鲜食枣因其营养保健价值高,尤其是维生素C含量高^[1-2],深受人们喜爱。但目前我国鲜食枣晚熟品种‘冬枣’一统天下,生产上缺乏优质早、中熟鲜食枣品种,制约了鲜食枣产业的发展。近几年新选育出的‘早红蜜’^[3]、‘晋冬枣’^[4]等鲜食枣新品种在一定程度上优化了品种结构,但尚不能满足市场需求。为此,山东省果树研究所枣课题组在多年收集、保存、评价和创新枣种质资源的基础上,经过20余年的连续筛选、综合性状调查、观测分析、区域试验和生产试栽,选育出果个大、品质优良、裂果轻的早熟鲜食枣新品种‘早秋红’,制定了枣优质、安全、高效栽培关键技术规程,在山东、河北、山西等地进行推广应用,取得了显著的经济、社会和生态效益,为我国枣产业发展提供了技术支撑。

1 选育经过

1.1 亲本来源和亲本特性

‘早秋红’系由地方资源‘大铃枣’中选出。‘大铃枣’树体中大,树姿开张,干性较强,发枝力较弱,枝叶稀疏。果实近梨形,平均单果质量为15.0 g左右,花大,花丝短,花药无花粉,是山东地方鲜食品种,品质优良,在山东9月上旬成熟,但存在果实不整齐,产量不高等问题。

1.2 选育方法和过程

‘早秋红’是通过地方品种株系选优方法选育而出。1980—1983年在山东省乐陵市资源调查中,自当地鲜食品种资源‘大铃枣’中发现1株早熟、大果、丰产、病害少、无裂果、质优的优良单株并标记;1984年开始高接鉴定,嫁接当年见果,主要性状优良且稳定,定为优系;2001年开始在山东泰安、乐陵、无棣等地开展区域试验,进行性状稳定性和适应性观察。结果表明,该品种在平原、丘陵、盐碱地等不同立地条件下栽培,均能表现出早实丰产、早熟、鲜食品质优等优良特性,且性状稳定。2017年通过山东省林木品种审定委员会审定,定名为‘早秋红’(图1),良种编号:鲁S-SV-ZJ-033-2016。



图1 枣新品种‘早秋红’

Fig. 1 A new jujube cultivar ‘Zaoqiuhong’

2 主要性状

2.1 植物学特征

树势中等,树姿开张,干性较强。主干灰褐色,条状纵裂;枣头红褐色,蜡质较少,平均长61.0 cm;二次枝自然生长节数8~10节,节间长4.5~5.5 cm;枣股圆锥形,枣吊平均长21.5 cm;针刺不发达。叶卵状披针形,纵径6.3 cm,横径2.5 cm,叶尖急尖,叶基圆楔形,叶缘钝齿形;花量大,每花序着花10~13朵,花径0.6~0.8 cm,蜜盘黄色,花夜开型,花丝短,花药中空无花粉。

2.2 果实主要经济性状

果实倒卵圆形或近圆形,平均单果质量为18.5 g,最大果质量为25.5 g,平均纵径4.2 cm,横径4.0 cm;果皮鲜红色,富光泽,皮薄;果肉白色,质细汁多,味甜;果实开始着色时可溶性固形物含量(ω ,后同)为23.6%,脆熟期可溶性固形物含量可达30.2%,总酸含量为0.61%,可食率为95.8%,鲜食品质上等;白熟期采摘做出的蜜枣晶莹剔透,品质极优;果核短梭形,平均质量为0.7 g,核纹粗深,常含1粒不饱满的种子。与生产上主栽早熟鲜食良种‘六月鲜’相比,果个大,果面光洁,肉质脆(表1)。

2.3 生长结果习性

‘早秋红’早实性强,酸枣砧嫁接苗当年可见果,

表1 ‘早秋红’与对照品种‘六月鲜’果实主要经济性状比较

Table 1 Comparison of main economic characters between ‘Zaoqiuhong’ and ‘Liuyuexian’

品种 Cultivar	果形 Fruit shape	色泽 Color	平均单果质量 Average fruit mass/g	ω (可溶性固形物) Soluble solid content/%	ω (总酸) Total acid content/%	肉质 Flesh quality	风味 Flavor
早秋红 Zaoqiuhong	倒卵圆或近圆 Inverted ovoid or round	鲜红 Fresh-red	18.5	30.2	0.61	细脆 Fine and brickie	甜 Sweet
六月鲜 Liuyuexian	长椭圆或长倒卵 Long oval or obovate	紫红 Fuchsia	13.6	24.6	0.52	疏松 Loose	甜 Sweet

高接换头当年亦可结果。发枝力较弱,苗木定植第3年株高2.1 m,冠径1.8 m×2.2 m,干径3.8 cm,枣股圆锥形,长0.4~0.6 cm,平均每个枣股抽生枣吊3~5条,枣吊中长,每个枣吊上着生花序8~13个,每花序平均着花12朵,平均株产可达5.1 kg。定植4~5 a进入丰产期,进入盛产期树株产可达11.5~20.0 kg,连续结果

能力强。

2.4 物候期

在山东泰安,‘早秋红’4月上旬开始萌芽,6月上旬盛花,8月中旬开始着色,8月下旬脆熟,9月上旬成熟,11月上旬落叶,果实发育期为80~85 d,较生产上主栽早熟鲜食良种‘六月鲜’提前7~10 d成熟(表2)。

表2 ‘早秋红’与对照品种‘六月鲜’物候期的比较(山东泰安)

Table 2 Comparison of phenological periods between ‘Zaoqiu hong’ and ‘Liuyue xian’ (in Taian, Shandong)

品种 Cultivar	萌芽期 Sprout date	盛花期 Full blooming date	果实成熟期 Fruit ripening date	落叶期 Leaf fall date	果实生长期 Fruit growth period/d
早秋红 Zaoqiu hong	4月6日 Apr. 6	6月1日—6月10日 Jun. 1 to Jun. 10	8月25日—9月5日 Aug. 25 to Sept. 5	11月5日 Nov. 5	80~85
六月鲜 Liuyue xian	4月7日 Apr. 7	5月27日—6月6日 May 24 to Jun. 6	9月5日—9月15日 Sept. 5 to Sept. 15	11月5日 Nov. 5	85~90

2.5 抗逆性

在山东内陆地区,‘早秋红’前期花常年坐果稳定,果实硬核期后落果轻。抗风力较强。对土壤适应性广,在砂壤至黏壤上都能正常地生长结果。抗炭疽病、褐腐病,感轮纹病轻。成熟期早,多数年份可避开雨季,裂果轻,裂果率一般低于3%。

3 栽培技术要点

适宜在山东省鲁北、鲁中南枣栽培区及生态环境类似地区栽培。以酸枣或枣为砧木,嫁接繁殖;株行距以(1.5~3)m×(3~5)m为宜;树形采用透光性强的小冠疏层形或主干疏层形,修剪以生长季修剪为主,休眠季节为辅的原则进行;及时追施花前肥,于盛花期,枣吊平均开花7~10朵时,喷布15 mg·L⁻¹赤霉素,提高坐果率,初花前期及盛花末期及时对新梢摘心,减少营养消耗,促进坐果;注重增施有机肥,加强病虫害的物理及生物防治,以提高果实品质及安全性。

特别注意,‘早秋红’花期较多数枣品种晚,因此,与其他枣树品种混栽时,花期喷施赤霉素时间要较其他品种晚4~7 d。

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