

大粒优质葡萄新品种峰光的选育

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摘要: 峰光是以巨峰为母本、玫瑰香为父本杂交选育出的大粒、优质葡萄新品种。果穗圆锥形, 果穗质量635.6 g, 果实紫黑色至蓝黑色, 果粒椭圆形, 平均单粒质量14.2 g, 最大单粒质量19.8 g; 每果粒含种子1~3粒, 多为1粒, 种子百粒质量11.58 g, 种子与果肉易分离; 果粉较厚, 果皮薄至中等厚, 果肉较脆, 可溶性固形物含量(w, 后同)为18.2%, 最高达22.6%, 可滴定酸含量0.46%, 固酸比高达39.6, 具草莓香味。从萌芽至果实完全成熟需136 d左右, 在河北昌黎9月1日左右果实成熟。该品种生长势强, 枝条成熟度高, 易丰产、稳产, 2年生开始结果, 3年生每666.7 m²产量1810 kg, 抗病性较强, 适应性强, 适宜我国巨峰适栽地区种植。

关键词: 葡萄; 新品种; 峰光; 中熟; 大粒; 优质

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A new good quality and large berry grape cultivar Fengguang

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Abstract: Fengguang, selected from the cross between Kyoho and Muscat Hamburgin in the breeding nursery, is a new good quality and large berry grape cultivar. 5694 seeds were obtained by artificial hybridization in 2003. It was screened out in the original selection in 2006 for its big berries, high yield, and good color. Regional adaptability testing was carried out from 2008. After several years of observation, it was ultimately named as Fengguang after the certification by the Hebei Forest Cultivar Approval Commission with a registration number: HE S-SV-VV-019-2013. The authorization of new plant variety right was granted by Agriculture Department in 2017, with a registration number: CNA20140365.9. The new variety was certificated for the registration of non-major crop varieties by the Ministry of Agriculture and Rural Affairs of the People's Republic of China in 2020, and its registration number is GPD grape (2019) 130040. The creeping hair on the shoot tip is heavy. The color of young leaf is yellow green. The upper surface of a young leaf is glossy, and heavy hair exists on the dorsal. The mature leaf is big, wedge-shaped, deep green and medium thick. The upper surface of a mature leaf is glossy, and a dense concentration of hair exists on the dorsal. The shape of the mature leaf is pentagonal. The upper lobes are shallow and closed. The tooth is sharp. There are glands on petiole and shoot. The mature branch is reddish-brown. The flower is hermaphrodite. The shapes of cluster and berry are conical and elliptic, respectively. And the skin is purple black to blue black. The mean weight of the cluster is 635.6 g. And the mean and maximum weight of the berry are 14.2 and 19.8 g, respectively. The single berry contains 1-3 seeds, mostly 1 seed, which are easily segregated from the flesh. The 100 seed weight is 11.58 g. The fruit powder is thick, the skin is thin to medium thick, and the flesh is crisp. The berry has a

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strawberry aroma. The average TSS (total solute solids) is 18.2%, and the maximum TSS reaches to 22.6%; TA (titratable acid) is 0.46%, and the TSS/TA is high to 39.6. It takes about 136 days from bud burst to full maturity. The fruit ripens on about September 1st in Changli area, which indicates that Fengguang is a middle ripening cultivar. This cultivar is of strong growth vigor and has early fruit fertility. The branches are easy to mature. The cultivar bears fruit in the second season, and the yield is about 27 000 kg·hm⁻² in the third year. It should be planted in the sandy soil. This cultivar has high disease resistance and good adaptability to environment. And it is suitable for cultivation in Kyoho growing areas.

Key words: Grape; New cultivar; Fengguang; Middle ripening; Large berry; Good quality

葡萄是我国重要果树之一。然而在鲜食葡萄生产中,玫瑰香、巨峰、红地球等品种一直以来占据主导地位。存在的主要问题是:玫瑰香果粒小;红地球抗病性差,不适宜多雨地区栽培;巨峰自然坐果不稳定、易产生大小粒等。葡萄品种改良在葡萄产业发展中发挥了重大作用^[1]。培育大粒、抗病、丰产、管理省工的葡萄新品种,尤其培育具有我国自主知识产权、中国特色的葡萄新品种成为葡萄育种工作者的艰巨任务。河北省农林科学院昌黎果树研究所从2003年开展葡萄杂交育种工作,培育出欧美杂交种大粒、丰产、优质葡萄新品种峰光(图1)。



图1 葡萄新品种峰光

Fig. 1 A new good quality and large berry grape cultivar Fengguang

1 选育过程

选用主栽品种巨峰^[2]作为母本、玫瑰香^[3]为父本,于2003年开展人工杂交工作。当年采集5694粒杂交种子,保湿沙藏,于2004年春季进行催芽播种,获得1425株杂交苗,直接定植杂交圃中,株行距0.5 m×2.2 m。2006年开始结果,编号为C12-5-5的单株结果表现粒大、丰产、色艳,初选为优系;2008年复选

并区试;试验结果表明,该优系抗病、果粒大、品质优、高产等优异性状稳定。2013年向河北省林木品种审定委员会递交审定材料,同年12月获审定批复。认定为峰光,审定编号为冀S-SV-VV-019-2013。2017年5月1日获得了编号为CNA20140365.9的中华人民共和国农业部植物新品种权证书。2020年1月21日完成了编号为GPD葡萄(2019)130040的中华人民共和国农业农村部非主要农作物品种登记。

2 主要性状

2.1 植物学特征

峰光嫩梢茸毛密,幼叶黄绿色,上表面有光泽,下表面密生茸毛;成龄叶楔形,大,墨绿色,中等厚,上表面有光泽,下表面茸毛极密。叶片5裂,上裂刻浅,闭合。锯齿锐。叶柄和新梢上有珠状腺体分泌。成熟枝条红褐色。花序着生3~5节。两性花。

2.2 果实经济性状

峰光果穗呈圆锥形,果穗质量635.6 g,果粒着生较紧密,果实紫黑色至蓝黑色;果粒椭圆形,单粒质量14.2 g,最大单粒质量19.8 g,果粉厚,果皮薄至中等厚而韧,果肉较脆,可溶性固形物含量(w,后同)为18.2%,最高达22.6%,可滴定酸含量0.46%,固酸比高达39.6,具草莓香味。种子较大,百粒质量11.58 g,每果粒种子数1~3粒,多为1粒,种子与果肉易分离(表1)。

2.3 生长结果习性

峰光生长势强,枝条成熟度高,成熟部分占年生长总量的96.1%,萌芽率高,芽眼平均萌发率达80.1%,结果系数高,每结果枝平均1.57穗(巨峰为1.40穗),进入结果期早,定植第2年结果株率100%,3~5年生树平均每666.7 m²产量1 938.6 kg;丰产、稳产性强。

表1 峰光与父母本果实性状比较

Table 1 Main characteristics comparison between Fengguang and its parents

品种 Cultivar	穗形 Cluster shape	果穗紧密度 Bunch density	穗质量 Bunch weight/g	果粒形状 Berry shape	果粒质量 Average berry weight/g	果肉质地 Flesh texture	香型 Flavor	果皮颜色 Color of skin	w(可溶性固形物) Soluble solid content/%	w(可滴定酸) Titratable acid content/%
峰光 Fengguang	圆锥形 Conical	较紧 Slight compact	635.6	椭圆形 Elliptic	14.2	较脆 Slight crisp	草莓香 Strawberry	紫黑色-蓝黑色 Purple black- blue black	18.2	0.46
巨峰 Kyoho	圆锥形 Conical	中等紧密 Medium	550.0	椭圆形 Elliptic	11.0	软 Soft	草莓香 Strawberry	紫黑色 Purple black	16.0	0.62
玫瑰香 Muscat Hamburg	圆锥形 Conical	较紧 Slight compact	530.0	椭圆形 Elliptic	5.2	较脆 Slight crisp	玫瑰香 Muscat	紫红色 Red-violet	17.0	0.51

2.4 物候期

在河北昌黎地区,4月18日左右萌芽,5月28日左右开花,7月23日左右果实进入着色期,9月1日左右进入成熟期,萌芽至果实完全成熟136 d左右。

2.5 抗逆性与栽培适应性

峰光对葡萄炭疽病、白粉病、霜霉病等具有较强的抗性。适宜种植于砂质土壤,盐碱地种植需谨慎。耐高温性较差,冷棚和露地栽培均适宜。

3 栽培技术要点

3.1 架式与整形

篱架、棚架栽培均可。篱架整形以“V”形整枝较好;棚架以龙干形小棚架整枝较好。篱架适用株行距(0.7~1.0)m×(2.2~2.4)m,每666.7 m²定植278~432株。小棚架采用株行距(1.0~1.2)m×(3~4)m,每666.7 m²定植139~222株。

3.2 花果管理

峰光结实力强,强枝、中庸枝留1个花序,弱枝不留花。花前7 d花序整形,保留花絮末端3~5 cm,最多80粒。初花在花穗上留4枚叶片摘心。果实绿豆至黄豆粒大小时疏果定粒,每个花序最终留果量35~45粒,666.7 m²产量控制在1500~2000 kg。疏果完成后及时套袋。

3.3 肥水管理

以施用有机肥为主,在秋季树体进入休眠前1个月采用沟施法施肥,以腐熟的农家肥为主,施肥量每666.7 m²土施2000~5000 kg,复合肥50~100 kg,过磷酸钙50 kg;并结合灌水进行。1年生树免开沟施基肥。根据土壤墒情,严格控制花期不浇水,花前可适量浇水,果实坐稳后及时浇水追肥,果实膨大期

和着色期每666.7 m²追施复合肥25 kg、硫酸钾20 kg。着色后控制肥水供应,防止裂果发生。

3.4 病虫害防治

该品种植株具有较强抗病性,病虫害以预防为主。结合修剪做好清园工作,减少越冬病菌及虫源数量。春季芽绒球期使用3~5波美度石硫合剂消杀清园,开花前后以预防灰霉病为主,花后重点预防白腐病、灰霉病、炭疽病、霜霉病等,每次喷药注意防控蓟马、绿盲蝽、蚜虫的危害。

4 综合评价

峰光品种果穗果粒大,较巨峰易着色、果肉较脆、糖度高、坐果好,品质上等;适宜短梢修剪,省工易管理;丰产、稳产,抗病能力强;具有较好的应用前景。

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