

浓香型鲜食葡萄新品种岳霞香峰的选育

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摘要:岳霞香峰葡萄为四倍体欧美杂交种, 是以巨玫瑰为母本、巨峰为父本杂交选育出的红色系浓香型鲜食葡萄新品种。果穗穗形整齐, 呈圆锥形, 平均穗质量为582.6 g, 大穗质量797.5 g。果粒着生松散适中, 大小均匀, 果粒圆形, 平均粒质量5.74 g, 大粒质量7.3 g, 果皮红色, 略厚, 稍有涩味。果肉偏软, 有肉囊, 味甜, 具有浓郁的草莓香味, 爽口。可溶性固形物含量(w, 后同)16.9%, 可溶性糖含量14.11%, 总酸含量0.76%, 维生素C含量达到8.53 mg·100 g⁻¹, 品质上等。该品种树势较强, 萌芽率81.3%, 结果枝率70.5%, 在熊岳地区露地栽培, 果实8月末至9月初成熟, 从萌芽到果实成熟需要125 d左右。抗病性和适应性与巨峰相似。可在全国巨峰葡萄适栽区推广种植, 定植第2年开花结果, 早期丰产性好。

关键词:鲜食葡萄; 新品种; 岳霞香峰; 浓香型

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Breeding report of a new table grape cultivar Yuexia xiangfeng

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Abstract: Yuexiaxiangfeng is a medium maturing table grape with excellent color and strong strawberry aroma, derived from a cross between Jumeigui and Kyoho made in 2010 at the breeding nursery. 960 hybrid seeds were harvested. The seeds were sown in spring 2011. The seedling numbered 10-6-28 first flowered and bore fruit in 2013. It was determined as the superior line due to the beautiful color and strong aroma. Through three years of continuous observation and screening of the trees grafted on Bada rootstock, it was determined as the final line in 2016 and was further tested for planting. The regional adaptability testing was carried out at three sites (including Liaoyang city, Beizhen county, Sujiatun county). It was registered by the Ministry of Agriculture and Rural Affairs of the People's Republic of China in 2022. The registration number is GPD grape (2022) 210007. Yuexiaxiangfeng is a tetraploid. The flower is hermaphrodite. The color of dorsal and ventral side of internodes is green with red stripes. The tendrils are intermittent. The young leaves are green with red spots, upper and lower surfaces are smooth and the mature leaves are pentagonal in shape, five-lobed and flat with the shallow upper and lower clefts. The average leaf area is 302.9 cm². The mature branches are red-brown with a moderate-length internode. The cluster of Yuexiaxiangfeng is conical in shape with the average weight is 582.6 g, moderate tightness without shoulder. The color of berry is red and the shape is round, the average weight of berry is 5.74 g and the maximum weight is 7.3 g. The peel is slightly thick with the medium fruit powder, the flesh is slightly soft with flesh sac. There are 2-3 seeds in a single berry, mostly 2 seeds. The berry has strawberry aroma. The soluble solids content is 16.9%, the titratable acid is 0.76%.

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In Xiongyue area of Liaoning province, it begins to sprout in late April in the open field cultivation, and blooms in late May to early June. The berry begins to color from Mid to late July. The fruit ripens in late August to early September. Normally, it takes about 125 d from germination to harvest. This cultivar owns strong growth vigor and the Beta rootstock is suitable for it to get more harvest. The bud burst rate is 81.3%, the average fruiting shoot rate is 70.5% and the resulting coefficient is 1.48. The first inflorescence is mostly on 3-4 node with medium fruit setting ability. The flower buds are well differentiated and the fruiting ability is strong. Only one inflorescence is usually reserved for the strong branches and the mean branches. The cultivar bears fruit in the second season, and has early fruit fertility. The yield is about 25 500 kg · 666.7 m² in the third year. The disease resistance and adaptability were similar to those of Kyoho. The spacing of 2 m × 4 m would be recommended. The short cane pruning and dragon-vine shape could be used for Yuexiaxiangfeng.

Key words: Table grape; New cultivar; Yuexiaxiangfeng; Mellow type

葡萄属于世界上最古老的物种之一,栽培历史悠久,且地位极为重要。中国是世界葡萄的第一生产大国,栽培面积约占全球葡萄总面积的17.1%。鲜食葡萄在中国葡萄产业中一直占据主体地位,占70%以上^[1]。中国鲜食葡萄栽培面积和产量虽均居世界前列,但主栽品种仍以巨峰、红地球、阳光玫瑰等国外引进品种为主。中国鲜食葡萄育种经过几代人几十年努力已取得很大成绩,培育出了一系列较好的品种^[2-5],促进了中国葡萄产业的发展,但在生产上浓香型红色系葡萄品种还较为稀缺,为丰富品种结构,培育出可满足中国市场需求的优新品种,辽宁省果树科学研究所历经12 a(年)时间培育出一个浓香型的红色系抗病葡萄新品种岳霞香峰。

1 选育过程

2010年辽宁省果树科学研究所选用具有玫

瑰香味的四倍体品种巨玫瑰为母本,具有草莓香味的四倍体品种巨峰作父本进行了常规杂交育种工作,果实充分成熟后收获杂交种子960粒,洗净后,沙藏保湿层积处理。2011年春天将杂交种子取出后温室催芽,待露白后进行营养块穴盘播种,秋天获得实生苗207株,2012年全部定植于实生苗圃,株行距0.5 m×4.0 m。2013年编号10-6-28单株开花结果,由于其果实颜色美观、香味浓郁被确定为初选优系,以贝达作砧木嫁接后,经过3 a的连续观察、筛选,2016年被确定为决选优系,并进行试栽。经过系统调查分析,各性状表现优异、稳定。2022年6月10-6-28通过农业农村部非主要农作物品种登记,该品种为四倍体,欧美杂种,是具有浓郁草莓香味的红色系中熟葡萄新品种,定名岳霞香峰[编号:GPD葡萄(2022)210007](图1)。



图1 鲜食葡萄新品种岳霞香峰

Fig. 1 A new table grape cultivar Yuexiaxiangfeng

2 主要性状

2.1 植物学特征

岳霞香峰属于欧美杂交种,四倍体,两性花。嫩梢绿色,略带条状红晕,有极疏白色茸毛。幼叶绿色带有红斑,上下表面均较光滑。成龄叶片五角形,中等厚,平均单叶面积302.9 cm²,5裂,上下裂刻均较浅;叶面平展,上下表面均着生稀疏茸毛;叶柄洼半开张;叶缘锯齿多、且两侧直与两侧凸皆有,锯齿长为1 cm;叶柄中等长,无茸毛。卷须分布不连续,卷须

平均长度为9.06 cm;成熟枝条红褐色,节间中等长。

2.2 果实经济性状

岳霞香峰果穗圆锥形,穗形整齐,平均单穗质量582.6 g,大穗质量797.5 g(表1)。果粒着生松紧适中,大小均匀,果粒圆形,平均单粒质量5.74 g,大粒质量7.3 g,果皮红色,略厚,稍有涩味。果肉偏软,有肉囊,果汁多,有浓郁的草莓香味,口感甜,总酸含量(w,后同)0.76%,可溶性固形物含量16.9%,最高可达21.3%,维生素C含量8.53 mg·100 g⁻¹。品质上等,种子发育完全,每粒果实含种子2~3粒,多为2粒。

表1 岳霞香峰与其父母本性状比较

Table 1 Main characteristics between Yuexiaxiangfeng and its parents

品种 Cultivar	果穗 形状 Cluster shape	平均穗质量 Average cluster mass/g	果粒 形状 Berry shape	平均单 粒质量 Average berry mass/g	果皮颜色 Skin color	果肉质地 Flesh texture	香型 Flavor	w(可溶性 固形物) Soluble solids content/%	w(可滴定酸) Titratable acid content/%	w(维生素C) Vitamin C content/ (mg·100 g ⁻¹)	种子数 Seeds number per berry
岳霞香峰 Yuexia- xiangfeng	圆锥形 Conical	582.6	圆形 Round	5.74	红色 Red	有肉囊 Saccate	草莓香 Strawberry	16.9	0.76	8.53	2~3
巨玫瑰 Jumeigui	圆锥形 Conical	548.0	椭圆形 Elliptic	7.74	紫红色 Red-violet	软 Soft	玫瑰香 Muscat	16.8	0.67	8.03	1~3
巨峰 Kyoho	圆锥形 Conical	615.0	椭圆形 Elliptic	7.65	紫黑色 Black-violet	有肉囊 Saccate	草莓香 Strawberry	15.9	0.57	7.76	1~3

2.3 生物学特性

2.3.1 物候期 岳霞香峰在熊岳地区露地栽培,4月下旬萌芽,5月底至6月上旬开花,7月中下旬果粒开始转色,8月末至9月初果实充分成熟。岳霞香峰从萌芽至果实充分成熟需109~124 d。

2.3.2 生长结果习性 岳霞香峰树势较强,以贝达为砧木,芽眼萌发率81.3%,结果枝占芽眼萌发总数的70.5%,结果系数1.48;花为两性,第一花序多着生于第3~4节上,坐果适中。夏芽副梢结实力强。定植第2年即可开花结果,每666.7 m²产量1420 kg,第3年平均每666.7 m²产量1630 kg,第4年进入盛果期,每666.7 m²产量1700 kg以上。

2.3.3 抗逆性与适应性 岳霞香峰抗寒、抗旱、抗高温能力较强。对霜霉病和白粉病具有较强的抗性,抗白腐病能力中等。适应能力较强,在中国干旱、半干旱以及南方地区均可栽培。

3 栽培技术要点

3.1 架势与整形

岳霞香峰在北方栽培可选用贝达砧木苗,株行距(0.8~2.0)m×(4~5)m。可采用篱架或小棚架栽

培,小棚架可结合龙干形整枝。成龄树新梢伸展后,及时摘除多余花序,以减少营养消耗,结果母枝冬季修剪时建议采用短梢或超短梢修剪,延长头可采用长梢修剪。岳霞香峰在幼树期以整形为主,注意扩蔓,延长梢长到2 m左右时摘心;落叶冬剪时可视成熟长度和架面高度进行,一般剪留成熟部分的2/3,且剪口粗度大于1 cm,剪留长度大概1.5 m左右。

3.2 花果管理

岳霞香峰花芽分化好,结实能力较强,一般每个新梢都带有花序,为了不浪费营养,一般应尽早去除多余花序,去花序原则是强枝和中庸枝保留1个花序,弱枝不留花序。因为树势较旺,一般于花前在花序上留4~6枚叶片摘心,并进行花序整形,可保留穗尖3~5 cm,在果粒长到花生粒大小时进行疏果,一般每666.7 m²产量控制在1700 kg以下。疏果后及时喷施防病药剂并进行套袋。

3.3 肥水管理

可在萌芽期或果实采收后施用有机肥及生物菌肥,一般每666.7 m²施用量3000 kg为宜。生长季可根据具体情况进行追肥,施肥后及时浇水,萌芽至幼果生长期以氮肥为主,转色期为了促进着色增施磷钾

肥。在北方埋土防寒区,根据土壤墒情进行合理灌水,春季葡萄出土萌芽前灌1次透水,花前1周视土壤墒情灌1次水。花期尽量不浇水,坐果后至转色前的膨果期5~7 d可灌1次水,着色后需适当控制灌水,果实成熟期停止浇水,防寒前需灌1次封冻水。

3.4 病虫害防治

岳霞香峰属于欧美杂交种,抗病能力较强,病虫害需遵循预防为主、综合防治的原则。春季葡萄出土后绒球期需要进行全园消杀,一般可喷施3~5 °Bé石硫合剂,花期前后重点预防灰霉病和穗轴褐枯病,花后则应着重关注霜霉病、白粉病、炭疽病的发生,可选用生产无公害果品允许使用的药剂进行防治,药剂交替使用,采收前停止用药。

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