

玫瑰香味葡萄新品种‘瑞都科美’的选育

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摘要: ‘瑞都科美’是从‘意大利’×‘Muscat Louis’杂交后代中选育出的玫瑰香味葡萄新品种, 果穗圆锥形, 平均单穗质量502.5 g, 平均单粒质量7.2 g, 果粒椭圆形或卵圆形, 含种子2~3粒, 果皮黄绿色, 具有玫瑰香味, 可溶性固形物含量为17.20%, 可滴定酸含量为0.50%。连年结果能力强, 在北京地区8月下旬成熟。

关键词: 葡萄; 新品种; ‘瑞都科美’; 香味; 中熟

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A new muscat flavor table grape variety ‘Ruidukemei’

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Abstracts: ‘Ruidukemei’ is a yellow green, early to middle season table grape variety (*Vitis vinifera*) with good eating quality. The original plant was imported from Hungary in 2000, which was the progeny between ‘Italia’ and ‘Muscat Louis’. The vines were propagated by cuttings and planted with the row space of 2.5 m and vine space of 1.5 m, it was very productive and had early fruiting capacity, the berries had yellow skin color and strong Muscat flavor. It was evaluated in regional trials in the districts of Yanqing, Haidian and Pinggu of Beijing, the varieties of ‘Xiangfei’, ‘Italia’ and ‘Pearl of Csaba’ were also included as controls. It was finally released as ‘Ruidukemei’ after validation through the Committee of Beijing Cultivar Registration and has good market potential for the traits of muscat flavor and large berry. ‘Ruidukemei’ is a diploid *Vitis vinifera*. The vigor of the vine is medium. The shoot tip is half open with no hair, the shoot is upright, distribution and intensity of anthocyanin coloration in shoot tip is light, density of prostrate hairs on tip is medium, density of erect hairs on tip is sparse. The tendril is discontinuous and bifurcated, the color is near yellow-green. The bud is slightly pointed and slightly held out, anthocyanin coloration of buds is strong. The color of dorsal and ventral side of internodes is green with red strips. The upper surface of a young leaf is pea green (R.H.S. 61/2) color while the undersurface of a young leaf is Spinach Green (R.H.S. 960/2) color. Average intensity of anthocyanin coloration of six distal leaves prior to flowering is weak. Density of erect hairs between veins at lower surface of 4th distal unfolded leaf is medium, density of prostrate hairs between veins at lower surface is strong, density of erect hairs on veins at lower surface is medium, density of prostrate hairs on veins at lower surface is strong. The shape of the mature leaves is pentagonal with undulate sides, medium thickness. The blade margin is pronounced in undu-

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lation. The petiole sinus is very open and V shaped. The teeth are short with both convex and straight sides. Tooth at petiole sinus is absent and not limited by veins. Upper lateral sinus is closed and shallow, lower lateral sinus is open and deep. Density of prostrate hairs between veins on lower surface of blade is very sparse, density of erect hairs between veins on lower surface of blade is very sparse, density of prostrate hairs between main veins on lower surface of blade is very sparse, density of erect hairs on main veins on lower surface of blade is sparse, density of prostrate hairs on main veins on upper surface of blade is very sparse. The upper surface is green. Anthocyanin coloration of main veins on lower leaf surface is extremely weak, density of prostrate and erect hairs on petiole is very sparse. The flower is hermaphrodite and usually positioned at the fourth node. The cluster of ‘Ruidukemei’ is conical with single or double shoulders, has an average weight of 502.5 g, average length of 17.8 cm and average width of 11.41 cm. The cluster density is medium to loose. The length of peduncle is medium, approximately 4.41 cm. The berry is oval or elliptic shaped, 24.5 mm in length and 19.1 mm in diameter, the average weight is 7.2 g with the maximum of 9 g. The berries are uniform in shape and color, with yellow green color. The thickness of the skin is medium, medium bloom. The firmness of the berry is medium, the flesh is juicy and crisp, with strong muscat flavor, with the soluble solid contents of 17.2% and titratable acid content of 0.50%. The number of seeds per berry is ranged from 2 to 3. In the Beijing area, the time of budburst is usually middle April, and flowering at late May, the fruit ripens in middle to late August. The average rate of fruiting shoot is 74.12% and the yield is about 22.5 tones per hectare. Horizontal trellis system and spur pruning were recommended in the northern area. The vine was susceptible to downy mildew if grown in the open field. A spray program suitable for disease control with most *Vitis vinifera* cultivars should be applied. Powdery mildew, Botrytis bunch rot and leafhopper may cause losses if grown in the greenhouse. For commercial production, only 70–90 berries should be left for each cluster, and only one cluster for each shoot.

Key words: Grape; New cultivar; ‘Ruidukemei’; Aroma; Middle-ripening

近年来,设施栽培中一年两季栽培方式逐渐兴起,因此对花芽分化容易,结果稳定的品种需求较大,而目前适合设施栽培专用品种不多^[1],大粒、玫瑰香味的品种则更少^[2]。北京市农林科学院林业果树研究所从上世纪80年代开始进行玫瑰香型葡萄的育种工作,但由于带有玫瑰香味的栽培葡萄起源于欧洲,国内玫瑰香型鲜食葡萄育种资源类型单一,多为近缘。为此,笔者于本世纪初先后申请了国家科技部中国-匈牙利、中国-保加利亚政府间科技合作项目,致力于葡萄优异资源的考察和引进,以增加我国品种的多样性。

1 选育经过

2000年在执行国家科技部中国-匈牙利政府间科技合作项目‘中匈葡萄合作研究’(项目编号:32-8)过程中,从匈牙利葡萄栽培和酿酒研究所引进的一个杂种单株,亲本为‘意大利’和‘Muscat Louis’,该单株果实表现出浓郁的玫瑰香味,香味浓郁持久,黄绿色,穗形粒

形美观。2010年2月,为迎接国际葡萄遗传育种会议的召开,将该单株作为特殊资源在北京市延庆区果品服务中心苏庄果树场温室区种植,当年秋季即收获成熟果实,成花结实力强,果实外形美观、玫瑰香味浓郁,品质优良,种植者和消费者都很喜欢。其后每年按照一年两季栽培模式进行管理,连续5 a(年)获得了成功。于2010年开始,分别在北京延庆、海淀和平谷区等区县开展区域试验,其果实成熟时香味浓郁,丰产性强,外观好,温室一年两熟栽培性状稳定。2016年通过北京市林木品种审定委员会审定,并命名为‘瑞都科美’(图1)。

2 主要性状

2.1 植物学特征

‘瑞都科美’属欧亚种,二倍体。新梢直立,嫩梢梢尖半开张,梢尖匍匐茸毛中,直立茸毛疏。幼叶下表面叶脉间匍匐茸毛密,下表面叶脉间直立茸毛中,



图1 玫瑰香味葡萄新品种‘瑞都科美’
Fig. 1 A new muscat flavor table grape variety
‘Ruidukemei’

下表面主脉上匍匐茸毛密,下表面主脉上直立茸毛中。成龄叶五角形,上表面主脉花青素极浅,下表面主脉花青素极浅,厚度中等。成龄叶横截面平,五裂,上裂刻深,轻度重叠,上裂刻基部U形,下裂刻深,开张,基部U形。叶柄洼极开张呈V形,不限制型叶柄洼,叶柄洼无锯齿。叶缘锯齿形状两侧直与两侧凸皆有,下表面叶脉间匍匐茸毛极疏,下表面叶脉间直立茸毛极疏,下表面主脉上匍匐茸毛极疏,下表面主脉上直立茸毛极疏,叶柄短于主脉,无毛,两性花。

2.2 果实经济性状

果穗圆锥形,有副穗,单或双歧肩,平均穗长17.80 cm,平均穗宽11.41 cm,平均单穗质量502.5 g,果穗紧密度中或松。穗梗长4.41 cm,果梗长0.91 cm,果粒着生紧密度中或松。果粒椭圆形或卵圆形,果粒纵径24.5 mm、果粒横径19.1 mm,平均单粒质量7.2 g,最大单粒质量9.0 g。全穗果粒大小较整齐一致,果皮黄绿色,中等厚,果粉中,果皮较脆,无或稍有涩味。果肉颜色无或极浅,果汁颜色无或极浅,果肉具有玫

瑰香味,香味程度中或浓,果肉质地中或较脆,硬度中等,风味酸甜,可溶性固形物含量17.20%,可滴定酸含量0.50%。种子数2~3粒。

‘瑞都科美’连年丰产性强,果实成熟后有明显的玫瑰香味,香味保持期较长,果实挂树期长,是一个比较理想的玫瑰香味的葡萄新品种(表1)。

表1 ‘瑞都科美’与对照品种的果实性状比较
Table 1 Comparison of main characteristics between
‘Ruidukemei’ and control variety

| 性状 Trait | 瑞都科美 Ruidukemei | 香妃 Xiangfei | 莎芭珍珠 Pearl of Csaba | 意大利 Italia |
|---|--------------------------------|---------------------------------|------------------------|------------------------------------|
| 成熟期 Maturity | 8月中下旬 Middle to late August | 8月上中旬 Early to middle August | 7月下旬 Late July | 9月上中旬 Early to middle September |
| 丰产性 Yield | 丰产 High | 丰产 High | 中 Middle | 中 Middle |
| 果穗长宽 Cluster size/cm | 17.80×11.41 | 15.1×10.7 | 14.5×9.8 | 17.5×12.1 |
| 平均穗质量 Average cluster mass/g | 502.5 | 322.5 | 250.1 | 434.6 |
| 果穗形状 Cluster shape | 圆锥 Conical | 圆锥 Conical | 圆锥 Conical | 圆锥 Conical |
| 果穗紧密度 Cluster compactness | 中到松 Middle to loose | 中到松 Middle to loose | 中到松 Middle to loose | 中到松 Middle to loose |
| 平均粒质量 Average berry weight/g | 7.2 | 6.7 | 3.2 | 6.3 |
| 果粒纵横径 Berry size/mm | 24.50×19.10 | 23.2×22.4 | 18.0×18.0 | 25.5×23.0 |
| 果粒形状 Berry shape | 卵圆或椭圆 Oval to elliptic | 圆形 Globose | 圆形 Globose | 椭圆形 Elliptic |
| 果皮颜色 Skin color | 黄绿色 Yellow green | 黄绿色 Yellow green | 黄绿色 Yellow green | 黄绿色 Yellow green |
| 果皮韧度 Skin tenacity | 较脆 Slight crisp | 较脆 Slight crisp | 脆 Crisp | 较脆 Slight crisp |
| 果肉质地 Flesh texture | 中或较脆 Middle to crisp | 较脆 Slight crisp | 软 Soft | 脆 Crisp |
| 果肉硬度 Flesh firmness | 中 Middle | 中 Middle | 软 Soft | 中 Middle |
| 果肉香味 Fragrance type | 玫瑰香味 Muscat | 玫瑰香味 Muscat | 玫瑰香味 Muscat | 玫瑰香味 Muscat |
| 果肉香味程度 Fragrance level | 中 Middle | 浓 Strong | 中 Middle | 中 Middle |
| 种子数 Seed number | 2~3 | 3~4 | 1~4 | 2~3 |
| ω (可溶性固形物) Soluble solids content/% | 17.2 | 16.6 | 16.0 | 17.6 |
| ω (可滴定酸) Titratable acid content//% | 0.50 | 0.64 | 0.55 | 0.65 |

2.3 物候期

‘瑞都科美’在北京地区4月中下旬萌芽,5月下

旬开花,8月中旬或下旬果实成熟。新梢8月上中旬开始成熟。从萌芽至浆果成熟需要120 d左右,属中熟品种。

2.4 生长结果习性

该品种树势中庸或稍旺,节间中等长度,丰产性强,多年平均萌芽率为70.41%,结果枝率为74.12%,结果系数为1.74,平均每666.7 m²产量1 500 kg(表2)。

表2 新品种和对照品种的生长结果习性
Table 2 Comparison of fruiting characteristics between Ruidukemei and control variety

| 品种 Variety | 萌芽率 Germination rate/% | 结果枝率 Rate of fruiting shoot/% | 结果系数 Cluster per fruiting | 每666.7 m ² 产量 Yield per 666.7 m ² /kg |
|------------------------|------------------------------|--|------------------------------------|--|
| 瑞都科美 Ruidukemei | 70.41 | 74.12 | 1.74 | 1 500 |
| 香妃 Xiangfei | 80.71 | 83.74 | 1.92 | 2 000 |
| 莎芭珍珠 Pearl of Csaba | 80.55 | 40.73 | 1.27 | 800 |
| 意大利 Italia | 54.80 | 40.60 | 1.40 | 2 500 |

2.5 抗逆性与栽培适应性

在北京地区,该品种实生原株树、高接树和幼树,多年来未见严重冻害和抽条现象,常规埋土栽培条件下,树体可安全越冬。同大多数其他欧亚种葡萄的抗真菌性病害能力相当,易感葡萄霜霉病、炭疽病等病害。多年来无特殊的敏感性病虫害和逆境伤害。

3 栽培技术要点

3.1 整形修剪

设施中推荐使用独立主干水平龙蔓整形,短梢修剪,株距2~3 m,埋土防寒区露地栽培推荐使用倾斜式水平龙蔓整形,中短梢相结合修剪。

3.2 枝梢及花果管理

在萌芽后,进行抹芽,每个芽眼保留1个健壮的

芽。当新梢生长到15 cm左右时进行定梢。新梢长至40 cm左右时,疏除过密枝条,并进行引缚,保障架面的通风透光。一般结果枝上只保留1个花序,开花前7 d进行花序整形,掐去花序尖端并除去副穗。花前5~7 d摘心,结果枝在花序以上留5~6枚叶片摘心,营养枝留8~10枚叶片摘心,副梢留2~3枚叶片摘心。每个新梢只保留一穗果,每穗果实保留70~90粒。

3.3 病虫害防控

注意提高结果部位,增加架面的通透性能,注意防治霜霉病。在日光温室栽培生长过程中,注意防治白粉病、灰霉病和叶蝉。

4 应用前景

该品种丰产性强,果实黄绿色,穗形、果形外观好,果实成熟时有较浓玫瑰香味,果实不裂果。在温室等设施栽培时成花、结果表现极佳,连年丰产能力强,栽培省工,是丰产、优质的中熟玫瑰香型新品种,有望在栽培中广泛推广。

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