

# 鲜食葡萄新品种‘中葡萄10号’的选育

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**摘要:** ‘中葡萄10号’是以‘维多利亚’为母本, ‘玫瑰香’为父本, 杂交选育出的早熟葡萄新品种。平均单穗质量490 g, 果穗圆锥形。平均单粒质量8.5 g, 果粒成熟后黄绿色, 果皮薄, 果肉较硬而脆, 味甜。可溶性固形物含量(w, 后同)17.9%, 可溶性总糖含量16.0%, 总酸含量0.57%, 糖酸比达到28:1, 单宁含量433 mg·kg<sup>-1</sup>, 维生素C含量5.41 mg·100 g<sup>-1</sup>, 氨基酸含量5.09 g·kg<sup>-1</sup>。郑州地区7月中下旬充分成熟, 从萌芽至浆果充分成熟约需110 d。‘中葡萄10号’属于欧亚种葡萄品种, 适宜河南、河北、山西、陕西等地栽培, 对灰霉病具有较强抗病力, 对霜霉病抗病力中等。

**关键词:** 鲜食葡萄; 新品种; ‘中葡萄10号’

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## A new table grape variety ‘Zhongputao No.10’

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**Abstract:** ‘Zhongputao No. 10’ is a new variety of early ripening grapes, which is bred through crossing between ‘Victoria’ and ‘Muscat Hamburg’ in 2004. In late July 2004, the hybrid seeds were cultured in vitro by embryo culture method. The hybrid seedlings were planted in vineyard of Zhengzhou Fruit Research Institute at early May. In 2007 the hybrid seedlings began to bear fruit. After several years of observation and identification, 2004-03-26 was selected as an excellent plant. After regional adaptability testing at different sites (including Luoyang city, Jiaozuo city, and Shangqiu city of Henan province), it was finally selected for its excellent quality. In 2018, it was put on records by the Henan Province Committee for Forest Variety Validation. ‘Zhongputao No.10’ is diploid plant. The plant growth potential is medium. The young shoot is half opened, and the color is green, semi-upright. Young leaves have a purplish red color as the leaves grow, the leaves turn green. Villi in the lower surface of leaf is sparse. The shape of mature leaf is pentagonal with yellow-green color. Leaf margin is serrate with both sides convex and the petiole is u-shaped. The surface of mature branches has a red-brown skin and stripes, its tendrils are semicontinuous and medium length. The flower of this grape variety is bisexual, the first inflorescence is usually born in the third or fourth section of the branch. Each fruit contains 1-3 seeds, most of which are 1 seed, and the seed and pulp are easy to separate. The fruit cluster is conical shape with the average mass 490 grams. The berry is green yellow color when fully ripe, oval shape, and average weight is 8.5 g. The berries have thin pericarp. The flesh is crisp and sweet. The contents of soluble solids, total soluble sugar, total acid, tannin, vitamin C, amino acid was 17.9%, 16.0%, 0.57%, 433 mg·kg<sup>-1</sup>, 5.41 mg·100 g<sup>-1</sup> and 5.09 g·kg<sup>-1</sup>, respectively. The sugar-acid ratio reached 28:1. The time from bud breaking to harvest is about 110 d, its time of bud-burst at the early of April, and flowering at the middle of May, fully mature date at mid-July in Zhengzhou area. The principle of

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“prevention is the main and comprehensive control” should be carried out in disease control, and attention should be paid to the control of green plant bug and thrips in germination period. When the rainy season comes, attention should be paid to the prevention and control of downy mildew. The second year of planting young trees can bear fruit, and the third year will reach the full fruit stage, the yield will be controlled at  $20 \text{ t} \cdot \text{hm}^{-2}$ . Vertical trellis systems and V-frame systems are used suitably in open field cultivation. the planting density was as follows: the space of plantation as  $1 \text{ m} \times 3 \text{ m}$ . Available nitrogen fertilizer is applied before germination, nitrogen and phosphorus compound fertilizer is applied before flowering, and nitrogen-phosphorus -potassium fertilizer are applied at the stage of grape berry expansion. While applying fertilizer, it can be watered at the same time. This grape variety is suitable for short branch pruning in winter and winter pruning ends by the end of February the second year, no later than the first ten days of March at the latest.

**Key words:** Table grape; New cultivar; ‘Zhongputao No.10’

葡萄是我国人民喜爱的水果之一,因此无论是栽培面积还是产量在各种水果中都排名前列,根据2018年农业部统计年鉴数据:截止2017年底我国葡萄栽培面积为87万 $\text{hm}^2$ ,产量为1308.3万 $\text{t}^{[1]}$ 。为满足人们各种口味和品尝葡萄的时间以及种植户的种植要求,因此选育各种成熟期、无核、大粒、抗性强、具有不同香味、种植技术简单的品种成为主要育种方向<sup>[2-6]</sup>。现在市面上早熟品种不多,种植面积较大的有‘夏黑’‘京亚’等品种,为丰富大家的选择,中国农业科学院郑州果树研究所经过选育,育成一个易管理、省工省力的葡萄新品种‘中葡萄10号’。

## 1 选育过程

2004年以‘维多利亚’为母本,‘玫瑰香’为父本进行杂交,共杂交花序15穗,其组合代号为2004-

03。7月下旬将收获的杂交种子采用胚培养方法,在试管中培育杂种苗,2005年3月在温室炼苗。5月初将杂交苗定植于中国农业科学院郑州果树研究所杂交苗圃。2007年开始结果,经过几年的观察和鉴定,编号2004-03-26被选为优良单株。2013年起在焦作市修武县方庄镇、洛阳市龙门区郟庄、商丘市开发区等地进行区域试验。经过连续5a(年)的植物学特征、生物学特性和园艺性状的鉴定观察,其综合性状优良,栽培性状稳定,经济价值高。2018年通过河南省林木品种审定委员会审定,并定名为‘中葡萄10号’(良种编号:豫S-SV-VV-040-2018)(图1)。

## 2 主要性状

### 2.1 植物学特征

‘中葡萄10号’为二倍体欧亚种。植株生长势



图 1 葡萄新品种‘中葡萄10号’

Fig. 1 A new grape cultivar ‘Zhongputao No. 10’

中等,新梢绿色,半直立,梢尖半开张。幼叶紫红色,随着生长渐变绿色,下表面茸毛稀疏。成龄叶叶片五角形,黄绿色,叶片中等大,下表面茸毛稀疏。叶片5裂,上裂刻中等深度,轻度重叠,基部形状为U形,下裂刻中等深度,轻度重叠,基部形状为U形。锯齿中等锐,形状为双侧凸。叶柄洼开张,基部U形。叶柄中等长,绿色稍有红晕。卷须半连续分布,中等长。成熟枝条横截面近圆形,表面为条纹状,呈红褐色。节间中等长。两性花,第一花序一般着生在枝条的第三或第四节。每果粒含种子1~3粒,多为1粒,种子与果肉易分离<sup>[6]</sup>。

## 2.2 果实经济性状

果穗圆锥形,果穗中等大,大小整齐,穗长12.0~17.0 cm,宽8.0~11.0 cm,平均单穗质量490 g。果粒着生中等紧密,果粒椭圆形,纵径2.3 cm,横径2.2 cm,平均单粒质量8.5 g,最大粒质量9.4 g。果粉较薄,果皮无涩味,较薄,完全成熟时为黄绿色。果肉脆,硬度适中,味甜,爽口,无香味。该品种可溶性固形物含量(w,后同)含量17.9%,可溶性总糖含量16.0%,总酸含量0.57%,糖酸比达到28:1,单宁含量443 mg·kg<sup>-1</sup>,维生素C含量5.41 mg·100 g<sup>-1</sup>,氨基酸含量5.09 g·kg<sup>-1</sup>。在河南地区果实成熟期在7月中下旬。‘中葡萄10号’与对照品种‘郑州早玉’和‘维多利亚’主要性状比较见表1。

## 2.3 生特学特性

2.3.1 生长结果习性 植株生长势中等。平均萌芽率74.1%,结果枝率80.6%。果枝平均着生果穗数为1.3个,夏芽副梢结实力中等偏低,隐芽萌发力中等。进入结果期早,一般定植第2年开始结果,并易早期丰产。盛果期株产13 kg,每666.7 m<sup>2</sup>产量2 500 kg以上,但宜控制在株产7 kg,666.7 m<sup>2</sup>产量1 500 kg为宜(1 m×3 m株行距,高宽垂架式栽培)。果粒不易脱落,在树上挂果期长。较耐贮运。

2.3.2 物候期 ‘中葡萄10号’在河南省郑州地区,4月上旬萌芽,5月中旬开花,花后浆果开始生长并迅速膨大,7月中下旬果实充分成熟。从萌芽至浆果充分成熟约需110 d,属于早熟品种。

## 2.4 适应性及抗病性

‘中葡萄10号’属于欧亚种葡萄品种,经过多年多点试验观察,凡适宜‘维多利亚’<sup>[7]</sup>栽培的地区均可发展,如河南、河北、陕西、山西等地区。对灰霉病具有较强抗病力,对霜霉病抗病力中等。对气候条

表1 ‘中葡萄10号’与亲本及对照品种性状比较  
Table 1 Main characteristics between ‘Zhongputao No.10’ and main varieties in Zhengzhou area

性状 Character	中葡萄10号 Zhongputao No. 10	维多利亚 Victoria	郑州早玉 Zhengzhou- zaoyu
成熟期 Maturity	7月中下旬 Mid-late July	7月底 Late July	7月中下旬 Mid-late July
果穗形状 Cluster shape	圆锥形 Conical	圆柱形或圆锥形 Cylindrical or Conical	圆锥形 Conical
平均单穗质量 Average cluster mass/g	490	630	436.5
果粒形状 Berry shape	椭圆形 Elliptic	长椭圆形 Long elliptic	长椭圆形 Long elliptic
平均单粒质量 Average berry mass/g	8.5	9.5	7.0
果皮颜色 Skin color	黄绿色 Green-yellow	黄绿色 Green-yellow	黄绿色 Green-yellow
果肉质度 Flesh texture	硬脆 Crisp-Hard	硬脆 Crisp-Hard	脆 Crisp
口感 Flavor	甜,爽口 Nice taste	酸甜 Nice taste	甜 sweet
w(可溶性固形物) Soluble solids content/%	17.9	16.0	16.0
w(总糖) Total sugar content/%	16.0	12.5	12.8
w(总酸) Total acidity content/%	0.57	0.47	0.48
糖酸比 Sugar-acid ratio	28:1	27:1	27:1

件的选择不是很严格,但因‘中葡萄10号’果实发育期短,对水肥条件要求较高,需严格控制负载量。成熟期遇雨,易裂果,因此要注意土壤墒情,前期土壤不要太干旱,墒情不能剧烈变化。

## 3 栽培技术要点

### 3.1 架式选择

露地与设施栽培都可以,采用双十字V型架或T形架栽培方式,株行距以1 m×3 m,每666.7 m<sup>2</sup>种植222株为宜。

### 3.2 整形修剪

冬季修剪一般在12月下旬或1月份进行,以中、短梢修剪为主。夏季修剪疏除过弱或过强新梢,20 cm左右留一个结果枝,果穗以下副梢要及时全部去除,果穗以上副梢可以留1~2叶摘心,同时去掉卷须。每个结果枝留一个花序,花期注意利用叶片遮阴,否则开花时光线直射在花序上,高温使花冠失水缩小抱紧在柱头上不易脱落,容易造成受精不良,形成大



小粒,影响产量。

### 3.3 肥水管理

定植当年的5—6月以尿素等速效氮肥为主,7月份以后追施磷钾肥促使枝条充实,8月份停止追肥;结果期树在葡萄萌芽前施速效氮肥,开花前追施氮磷复合肥,葡萄浆果膨大期追施氮磷钾肥。葡萄采摘后在9—10月初施基肥1次,每666.7 m<sup>2</sup>施商品有机肥1 t或以油渣、豆饼为要原料的生物菌肥400~500 kg,可以沟施或撒施旋耕。

视土壤墒情进行水分管理。苗期不要缺水,可结合施肥进行灌水;结果期树除抓好催芽、催条水外,着重抓好浆果膨大水。采果前后适当控水。

### 3.4 病害防治

病害防治贯彻“以防为主、综合防治”的原则,发芽期要注意绿盲蝽和蓟马的防治。雨季来临时,要注意霜霉病的防治,全园喷施一遍铜制剂,如波尔多液、必备,发病时喷施烯酰吗啉,以后根据情况用药。

## 4 综合评价

‘中葡萄10号’是早熟鲜食品种,树势中庸,结果稳定,穗形整齐,果粒大小均匀,不需要花费大量时间疏花疏果,整理果穗,因此省力省工,可以节约劳动成本。其栽培适应性强,对灰霉病有较强抗性,多雨季节注意霜霉病的发生,同时在果穗整个生长时间,注意土壤墒情,不要有剧烈变化,以防裂果。适宜在干旱和半干旱地区栽培种植。

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