

ARI-516

Hybrid Type : Inter-specific
Parents : *V. labrusca* x *V. vinifera*
Female : Catawba
Parent
Male Parent : Beauty seedless
Purpose : Table, Raisin, Juice & Wine making
Maturity : Early 110 -120 days after pruning
Period
Bunch Shape : Elongated and loose
Bunch : Even
Maturity
Berry Shape : Spherical
Berry Colour : Bluish black
Juice Flavour : Musky pleasant flavour
100 Berry Wt. : 150 to 190 gms
T.S.S. : 22 to 24^o B
Acidity : 0.4 - 0.6 %
Juice : 60 to 70 %
Seeds : 0 - 1 No. (Rudimentary)
Disease : Moderately resistant to resistance
Downy, Powdery mildews and resistant to anthracnose

Extension Folder No.1

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ARI 516

Grape Hybrid ARI - 516 (Catawba x Beauty Seedless) developed at MACS-Agharkar Research Institute under AICRP-Fruits on grapes. It is an inter-specific grape hybrid derived from *Vitis labrusca*- var. Catawba x *Vitis vinifera* - var. Beauty seedless. ARI - 516 is suitable for preparation of juice, raisin, jam and red wine purpose. It has superior quality fruits and higher yield per unit area. It is an early ripening hybrid, matures in 110 - 120 days after pruning with elongated bunches and pleasant musky flavoured berries. It is also moderately resistant to major fungal diseases. It has been recommended for cultivation in Maharashtra, Punjab, Telangana and Tamil Nadu due to its high yield, unique taste and processing properties.



VINEYARD MANAGEMENT

- Planting time : It can be grown on own root system or can be planted on rootstock. Rootstock Degrasset or Dogridge (for heavy soil) can be planted in February and wedge grafting can be done in August with 3 node mature scion. Alternatively prepare grafts in nursery and plant them in field.
- Spacing and training : Vine can be trained on wide angle Y trellises spaced between 2.74 m (9 ft.) between rows and 1.52 m (5 ft.) between plants.
- Fertilizer dose : 50 tons FYM along with 500:600:700 kg NPK per hectare. To be applied in split doses, 50% during April pruning and 50% during October pruning.
- Micronutrients : $MgSO_4$ @ 30 kg/ha and $ZnSO_4$ @ 10 kg/ha
- Pruning : At 5-8 buds from base. Alternatively, spur prune with canes replacing weak arms if the spurs are too weak.
- Bunch thinning : It does not require bunch thinning.
- Crop load/vine : Full crop can be taken from 3rd to 4th year onwards.
- Use of GA_3 : Not required being seeded.
- Reaction to diseases: Moderately resistant to downy, powdery mildew and resistant to anthracnose.



VINE CHARACTERS

- Yield: 10-15 kg/vine
- Time of fruit pruning: 2th week of October
- Time taken for bud burst: early and takes 6-8 days after fruit pruning
- Days to flowering: 35 days after fruit pruning
- Inflorescence per shoot: 2-3
- Bunch size and shape: Long and conical
- Bunch density: Small size, loosely distributed berries
- Bunch length & spread: 20-25 cm length, conical
- Pedicle thickness & attachment: Naturally thick and firm
- Berry pedicle length: 3 mm
- Berry size: small 1.2 x 1.2 cm
- Berry shape: Spherical
- Berry colour: Bluish black
- Berry pulp: Juicy
- Berry flavour: Pleasant musky flavour
- Berry skin thickness: Medium
- Single berry weight: 1.5 to 1.9 g
- Shelf life: 8 days in refrigerated conditions
- Time of berry ripening: 110-120 days
- Berry juice content: 60-70%
- TSS content: 22-24 °B
- Fruit acidity: 0.4-0.6 %
- Consumers' preference: Fruits, juice as well as jam is very much appreciated by consumers