

Description of Desirable Table Grape Varieties for Idaho

By:

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‘Alborz’ and ‘Flame Seedless’: Vine performance and berry characteristics of ‘Alborz’ are very similar to those of ‘Flame Seedless’. It is believed that ‘Alborz’ is slightly more cold tolerant and perhaps crunchier than ‘Flame Seedless’ but we do not have sufficient information to verify this. In our evaluations, we have not seen significant differences in berry quality and maturity between these grapes.

‘Alborz’ is the most widely planted table grape variety in Idaho. In our long-term evaluations, we have demonstrated that if all cultural practices and crop management, including shoot thinning, cluster removal and cluster shortening, are practiced properly (as it will be discussed later), cluster and berry quality of ‘Alborz’ produced in Southwest Idaho will be perfectly acceptable for both regional and export market. Berries in this cultivar are naturally small to medium size. Under conditions of Southwest Idaho, ‘Alborz’ and ‘Flame Seedless’ are harvested between early and late September. In California, most of the ‘Flame’ table grapes are harvested by early August. During the time that Idaho growers can harvest fresh crop of ‘Alborz’ or ‘Flame’, California markets it’s stored ‘Flame Seedless’. Thus, when Idaho growers improve their storage facilities, they could store their grapes later than California and perhaps market them in January.

‘Alborz’ should be spur pruned. The most common training for this variety is single bilateral cordon. In our evaluations, training ‘Alborz’ cordons at 52 to 55 inches from the ground provided better light penetration and air movement and reduced the severity of powdery mildew infestation than training them at 42 inches. This practice also improved cultural practices such as shoot thinning and cluster or crop management and harvest. The cross arm (preferably 3 ft long) for “catch wires” can be installed 16 to 18 inches above the cordon wire. Suitability of other methods of canopy management is being experimented at the University of Idaho Pomology Program now. Among these experimental methods are Slanted Bilateral Cordon and Quadrilateral Cordon Training.

'Emerald Seedless': Berries are green, medium to large size, and seedless. There fewer clusters per vine in this cultivar than most other cultivars but clusters are extremely large and attractive. In 'Emerald', up to about 10 to 12 clusters per vine is sufficient for a complete crop . This cultivars blooms about 5 days later than 'Alborz' table grape. Some clusters could reach 4 to 5 pounds. If berries are protected from direct sunlight, berries can stay yellowish-green for a long time, which is a preferred berry color for commercial market. However, berries will change to yellow if shoots and leaves are pushed away or removed and allow light to penetrate inside of canopy. The berries that are excessively exposed to sun may not be attractive for market. However, certain farmers markets prefer yellow berries than green. The berry has thin skin, and thus extra care should be taken during harvest, storage, and shipment. This variety is extremely susceptible to powdery mildew and somewhat susceptible to sunburn. Shoot thinning, creation of an aerated canopy, and application of timely and repeated fungicide would reduce the severity of powdery mildew. Growing 'Emerald' would be a major challenge for organic growers, as most organic fungicides may not be as effective as traditional fungicides. Sulfur is an excellent way of controlling powdery mildew. However, sulfur spray should be stopped after temperature exceeds 88 to 90 F. Cluster removal may be beneficial if crop load is excessive but cluster shortening is not recommended, as clusters will be too compact. Maximum of 10 to 15 clusters per vine gives sufficient crop in this variety. This cultivar does not need GA spray, and GA may have an adverse effect on berry appearance. This grape can be harvested between Sept 10 and October 15 under Southwest Idaho conditions.

The vine should be spur pruned. A very close planting space (i.e. 6ft x 9ft), that leads into a denser canopy, will aggravate the mildew problem in many varieties, particularly in 'Emerald'.

'Ralli' or 'Anahita': Berries are seedless, medium to large size and have bright red color that will turn darker if kept on the vine. Clusters in this variety are medium size and extremely attractive. Cluster shortening, GA spray, and girdling are not recommended, although minor crop adjustment (cluster removal) may be needed in

some years for this variety. Our experiments show that girdling may have negative effect on berry quality and vine survival in this variety. This grape can be harvested between August 20 and September 20 under Southwest Idaho conditions. The optimum method of training and pruning for this variety under Southwest Idaho conditions are being experimented at this time. It seems that vines can perform satisfactory when they are spur-pruned and trained to a single bilateral cordon. However, this variety has the tendency to produce canes that dominate the cordon arms. Overall, the vine is not very vigorous. During the April freeze of 2007, we found that this cultivar is sensitive to spring frost.

'Kashishi': This grape is originated from north of Iran and southern region of former Soviet Union. The name in Persian (Farsi) translates into 'the grape of priests', perhaps due to its high quality. Although people may have different preference and taste for grapes, 'Kashishi' is the best seeded-grape among all varieties we have tested during the last several years, in the opinions of authors. Although many of the American consumers prefer seedless grapes, some high quality seeded grapes such as 'Kashishi' would be more popular for export market to certain regions of the world. Berries are naturally very large, tender, and oblong shape with beautiful maroon color. The vine is moderately vigorous. Usually, this variety does not need GA spray, vine girdling, cluster thinning or cluster shortening. Berries mature between September 10 and October 15 under Southwest Idaho conditions. Berries do not shatter under normal conditions.

'Kashishi' should be spur-pruned. The most common training for this variety is single bilateral cordon. Suitability of other methods of canopy management is being experimented at the University of Idaho Pomology Program now.

'Autumn Royal': Berries are large size, seedless, crunchy, firm, flavorful, and have deep purple to black color. Clusters in this variety are large and compact. Information on the needs for GA spray on this variety is not clear but it seems that an early GA spray (at bloom) may reduce the fruit set and thus improve the quality by reducing cluster compactness. This grape can be harvested between September 15

and late October under Southwest Idaho conditions. Propagation of this cultivar is not as easy as 'Alborz'. Cuttings may not need any rooting hormones for rooting.

This cultivar is often trained into a quadrilateral cordon training system in California. Our experiments show that managing canopy of this variety with a single cordon system is difficult and many berries are sunburned with this system of training. Overall, this is a good variety for planting under conditions of Southwestern Idaho.

'Fantasy': Berries are naturally large size, seedless, firm, crunchy, flavorful, and have deep black color. Clusters in this variety are loose and do not need cluster shortening, cluster removal, or GA spray. 'Fantasy' can be harvested between September 1 and September 20th under Southwest Idaho conditions.

This variety is often trained to a single bilateral cordon. Productivity of this cultivar is moderately low and not regular under Southwest Idaho conditions.

Overall, 'Fantasy' is a good variety for planting under conditions of Southwestern Idaho, but its productivity issue should be kept in mind before planting in a large scale.

'Jupiter': Berries are medium size, tender, seedless, and have deep black. Berries are distinctively flavorful. Clusters are small to medium size, and thus do not need cluster shortening or GA spray. However, removal of cluster with closed spacing may improve berry size.

This cultivar can be harvested between September 1 and September 20, although berries can stay on the vine after Sept 20 and get sweeter. Late harvested 'Jupiter' berries make excellent raisins.

'Jupiter' can be used as fresh and raisins. Vines of 'Jupiter' are extremely productive and cold tolerant. During April of 2007, several varieties of wine and table grapes were damaged by a spring frost while 'Jupiter' showed no signs of damage. This variety is often trained into a single bilateral cordon. This variety is recommended for a small-scale commercial planting under Southwest Idaho conditions. Due to the soft texture and medium size of berries, a large-scale production may not be advisable unless the market demands for a large quantity.

'Princess': Berries are seedless, medium to large size, tender, and have light green color that can turn yellow if left on the vine. Berries are distinctively flavorful and pleasant taste. 'Princess' may not need GA spray.

This cultivar can be harvested between September 5 and September 30, although berries can stay on the vine until later.

Shortly after its release, 'Princess' was planted widely in California. However, 'Princess' fruit set can be problematic both in California and Idaho, and thus, its plating has slowed down. Our preliminary experiments in California and Idaho show that poor fruit set in this variety could be a nutritional problem, and the set may be improved by additional supply of K at critical times before set. We must emphasize that impact of K on fruit set of 'Princess' is preliminary, but not conclusive, and this observation deserves further study. In Idaho, we train our 'Princess' grape into a single bilateral cordon and have spur prune them. However, in California, they train 'Princess' to single bilateral cordon, slanted bilateral cordon, or quadrilateral cordon and spur pruned in all training systems.

'Princess' has an outstanding fruit quality and is highly in demand. Thus, researchers in California and Idaho focus on improving the fruit set issue in this cultivar.

'Italia': This grape is widely planted in Italy. 'Italia' is the best green seeded grape among all varieties we have tested during the last several years, in the opinions of authors. Although many of the American consumers prefer seedless grapes, some high quality seeded grapes such as 'Italia' would be more popular for export market to certain regions of the world. Berries are naturally large, tender, and oblong shape with beautiful green color that can turn yellow if left on the vine and exposed to sun light. The vine is not vigorous. Our extensive research shows that 'Italia' does not need GA spray, vine girdling, cluster thinning or cluster shortening. Girdling wounds in Italia would heal very slowly and may cause problem with the vine survival. However, girdling enhanced berry maturity. Berries mature between September 10 and cluster can be stored on the vines until October 15 under Southwest Idaho conditions. Berries do not shatter under normal conditions.

'Italia' should be spur-pruned. The most common training for this variety is single bilateral cordon.

In Idaho, 'Italia' can be kept in a regular storage at 32 F for several weeks, perhaps until Thanksgiving or Christmas.

'Saturn': Berries are medium size red to dark red that are seedless or have small traces of seed, particularly when summer temperature is excessively warm. Berries are flavorful and clusters are small. These characteristics make this cultivar an excellent choice for children school lunch, as they may not be pack or eat an entire a large cluster.

Excessive shading will result in poor color. Grapes are harvested between September 1 and September 25. 'Saturn' should be trained to a single bilateral cordon

Table 5. Summary of various characteristics of the newer group of Table Grapes in Idaho

<i>Variety</i>	<i>Seed Status</i>	<i>Berry size</i>	<i>Cluster Size</i>	<i>Berry Color</i>	<i>Approx. Harvest in Idaho</i>	<i>Skin</i>	<i>GA Needs</i>	<i>Comments</i>	<i>Over-all Preference</i>
Autumn Royal	Seedless	Large	Large	Black	Sept 10-Oct 15	Tender	Yes?	Mild sunburn	Excellent
Princess	Seedless	Medium	Med-large	Green	Sept 5-Sept 30	Tender	No	Poor Set	Excellent
Ralli	Seedless/ Trace	Medium-large	Medium	Red-maroon	August 25-Sept 30	Tender	No	Cold sensitive	Excellent
Jupiter	Seedless/ Trace	Medium	Medium	Black	Sept 1- Sept 25	Tender	No	Cold Resistant	Excellent
Kashishi	Seeded	Large	Medium	Maroon	Sept 12-Oct 15	Tender	No	Pleasant	Excellent
Emerald	Seedless	Medium	Very large	Green	Sept 10-Oct 15	Tender	No	Very susceptible to sunburn & Powdery mildew	medium
Alborz	Seedless	Medium	Large	Red	Sept 1-Oct.10	Tender	Yes	Needs crop management	Excellent
Neptune	Seedless	Medium-large	Medium	Green	Sept 5-Oct 5	Slip	Yes	Nice berries, Muscat flavor	Medium
Red Globe	Seeded	Large	Large	Red	Sept 20-Oct 20	Tender	No	Late season	Good
Flame Seedless	Seedless	Medium	Large	Red	Sept 1-Oct.10	Tender	Yes	Needs crop management	Excellent