



Is it a Plum?

Plums are the fruiting bodies from plants that belong to the subgenus *Prunus* (1). They have a smooth pit and a groove running down one side of the fruit. Plums have been cultivated all over the world since prehistoric times. Like other fruits such as apples, plums are available in many different varieties. The earliest known plums are believed to have originated in China around 470 BC with introduction to Europe of these same fruits around 500 years later. Additional geographical isolations have yielded the South Asian Cherry Plum and a number of American Plums (2).



American Plum (P. Americana)



Japanese Apricot or Chinese Plum (P. mume)



Damson Plum (P. domestica insititia)

Plums can be broadly divided into three groups within the subgenus based on variations in how they flower:



- **Prunus** – or Old-World Plums which include such varieties as Damson, Japanese, Italian and Sloe or Blackthorne plums.
- **Prunocerasus** – or New World Plums which include a number of varieties native to North and Central America.
- **Armenica** – Which includes the apricot, Chinese Plum and Siberian apricot. (1, 4)



Pluot (P. salicina x P. armeniaca)



Japanese Plum (P. salicina)



Armenian Plum or Apricot (P. armeniaca)

Today China is the leading harvester of plums, followed by the E.U., Romania, Serbia and the United States. Within the US, major production of plums happens in California (1). Advances in breeding methods and the number of cultivations has yielded many improvements in plums including

disease resistance, drought or frost tolerance, extended growing seasons and everyone's favorite reasons – sweetness and flavor. By cross breeding varieties, nurseries have been able to supply hardy plants that will yield better tasting fruits year after year without genetic modification.

When plant varieties are interbred at the nursery, we end up with interspecific hybrid species. Such is the case with a wide variety of plum fruits that have come to be labeled Interspecific Plums (IS Plums). These include hybrid crosses within the *Prunus* subgenus that have the outward appearance of a plum. We have heard them called plumcots, apriums, apriplums and Pluot®. These names can include any number of hybrid crosses between *Prunus* species. It is commonly stated that the Pluot®, developed and trademarked by Floyd Zaiger, is a cross between Old World and *Prunus armeniaca* (Armenian Plum) (5, 7); however, testing to date has shown no distinct genetic alleles that can be identified as coming directly from *Prunus armeniaca* within the Pluot® (3).

The USDA states the visual grade standard for any fruit marked as Pluot® or IS Plum will be plum as long as the outward appearance of the fruit is similar to that of a plum (6). It is a misconception that Pluot® are not plums. Pluot® are hybrid fruits that come from trees that belong fully to subgenus *Prunus* and are therefore plums. To provide transparency for our customers on this subject, we are now listing ingredients as "Plum and/or IS Plum" in items that contain plum ingredients to reflect the similar handling and classification of the hybrid and heritage varieties that we process.

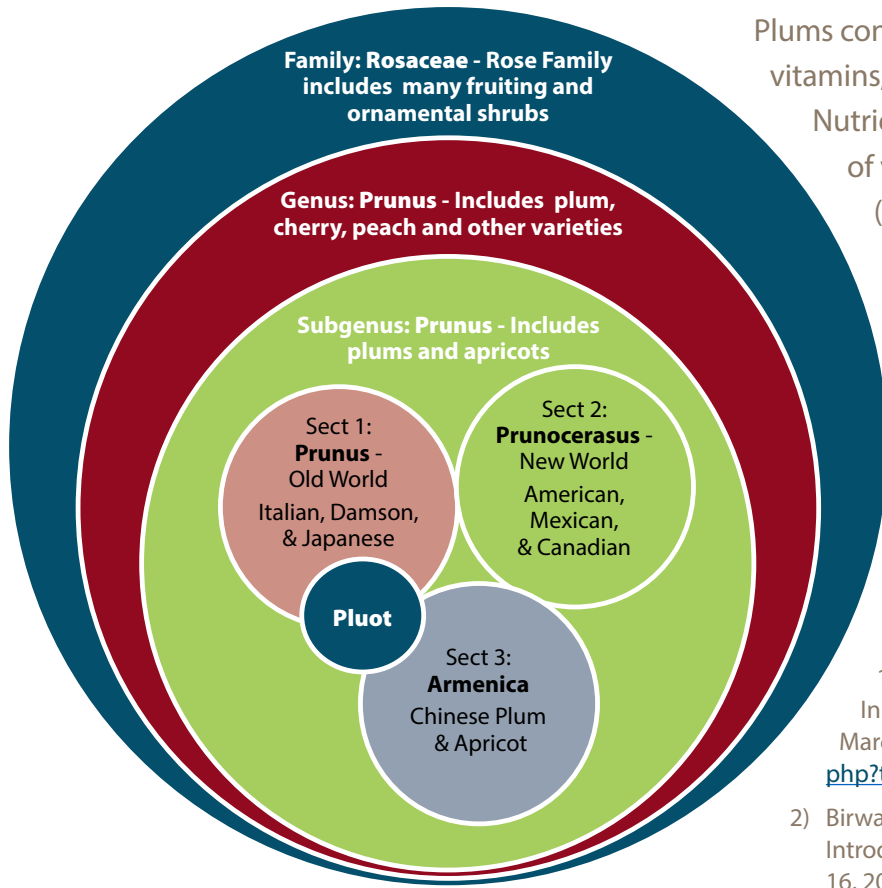


Figure 1: Scientific Classification Diagram - Prunus Species

Plums contain an assortment of healthy components, vitamins, and minerals. According to USDA National Nutrient Database, they are an excellent source of vitamins such as vitamin A, vitamin C (ascorbic acid), folate, and vitamin K (phylloquinone). They are also a good source of vitamin B1 (thiamine), B2 (riboflavin), B3 (niacin), B-6, and vitamin E (alpha-tocopherol). The minerals present in them include potassium, fluoride, phosphorus, magnesium, iron, calcium, and zinc. They also supply dietary fiber and offer very low calories without any harmful fats.

1) Wikipedia contributors. (2019, February 21). Plum. In *Wikipedia, The Free Encyclopedia*. Retrieved 21:01, March 1, 2019, from <https://en.wikipedia.org/w/index.php?title=Plum&oldid=884342469>

2) Birwal P, Deshmukh G, Saurabh SP, et al. Plums: A Brief Introduction. *J Food Nutr Popul Health*. 2017, 1:1, March 16, 2017 <http://www.imedpub.com/articles/plums-a-brief-introduction.pdf>

3) Ahmad, Riaz & Potter, Daniel & Southwick, Stephen. (2004). Identification and characterization of plum and pluot cultivars by microsatellite markers. *Journal of Horticultural Science and Biotechnology*. 79. 164-169. 10.1080/14620316.2004.11511743.

4) Shi, Shuo & Li, Jinlu & Jiahui, Sun & Yu, Jing & Zhou, Shiliang. (2013). Phylogeny and Classification of *Prunus sensu lato* (Rosaceae). *Journal of integrative plant biology*. 55. 10.1111/jipb.12095.

5) Brantley, Chip (2009-08-19). "Plu-What? What's the difference between pluots and plumcots?". *Slate*.

6) USDA Fruit and Vegetable Program. (May 2004). Plums and Prunes: Shipping Point and Market Inspection Instructions.

7) Wikipedia contributors. (2018, October 21). *Prunus armeniaca*. In *Wikipedia, The Free Encyclopedia*. Retrieved 16:16, March 4, 2019, from https://en.wikipedia.org/w/index.php?title=Prunus_armeniaca&oldid=865003750

Tree Top offers plum products in single strength and concentrated purées, juice concentrate, and dried powder forms.



For a complete listing of all our fruit, in all their forms and endless possibilities, visit treetoppingredients.com or contact us at 509-698-1435.

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