

BIOCHEMICAL FEATURES OF ROSA ROXBURGHII TRATT FRUIT

TABLE 1 Chemical Composition of Rosa Roxburghii Tratt Fruit				
	Ripe (Yellow)		Unripe (Green)	
Composition	Fresh Fruit	Dry Fruit	Fresh Fruit	Dry Fruit
Food Weight (Edible Part)	72.62		72.07g	
Water	85.21g		84.77g	
Solid Substance	14.79g		15.28g	
Total Acid degree	21.60g		25.60g	
Ash	0.64g	4.33g	0.68g	4.52
Calcium	0.0008g	0.050g	0.009g	0.062g
Phosphorus	0.027g	0.184g	0.032g	0.213g
Ferrous	0.0019g	0.130g	0.098g	0.0124g
Carbohydrates	3.72g	25.18g	3.11g	20.48g
Protein	0.61g	4.09g	0.70g	4.58g
Lipid	0.95g	6.43g	0.94g	6.19g
Crude Fiber	7.23g	52.87g	8.27g	54.14g
Tannin	1.64g	11.10g	1.53g	10.09g
β-carotene	2.90mg			
Thiamin	0.05mg			
Bio-Flavonoids	0.03mg			
Vitamin C	2585mg			
Vitamin P	2909mg			

B. The amount of vitamin C and vitamin P in Rosa Roxburghii Tratt Fruit

Rosa Roxburghii Tratt Fruit has a high content vitamin C and P. The content of vitamin C of Rosa Roxburghii Tratt Fruit flesh per 100 gram varied between 794 ~ 2391 mg, which was fifty time as much as that of Mandarin orange and nine times as much as that of yangtao. Rosa Roxburghii Tratt Fruit has much more Vitamin C than other kinds of fruit such as Grape Fruit, Apple, Pear and Cimei. Rosa Roxburghii Tratt Fruit has higher content vitamin P than general vegetables and fruits. The vitamin P content in Rosa Roxburghii Tratt Fruit per 100 gram flesh varied from 5981 to 12895 mg.. Rosa Roxburghii Tratt Fruit has a abundance of vitamin C and P. By consuming half a fruit will provide an individual with the Required Daily Intake of Vitamin C and P.

C. Effect of various kinds of factors on the content of vitamin C and P in Rosa Roxburghii Tratt Fruit.

Rosa Roxburghii Tratt Fruit is a special kind of fruits in South Western China. Although Rosa Roxburghii Tratt Fruit is a rich source of vitamin C and P, maturity, size and weight of Rosa Roxburghii Tratt Fruits may have effects on the content of vitamin C and P of Rosa Roxburghii Tratt Fruit. Our study showed that vitamin C content was negatively related to both size and weight. On the contrary, vitamin P content was positively related to the size and the weight. The ripe Rosa Roxburghii Tratt Fruits had higher content vitamin C and P than unripe fruits. There was no relationship between the maturity and the size as well as the weight and the size.

TABLE 2				
Vitamin C content of Rosa Roxburghii Tratt Fruit and other Fruits				
Fruit	Maturity	Vit. C content (mg/fruit flesh per 100 gram)		
		Minimum	Maximum	Average
Mei tan Rosa Roxburghii Tratt Fruit	Unripe, green	1022	1881	1451
Mei tan Rosa Roxburghii Tratt Fruit	Ripe, yellow	2054	2729	2391
Chong qing Rosa Roxburghii Tratt Fruit	Unripe, green	1260	2039	1793
Chong qing Rosa Roxburghii Tratt Fruit	Ripe, yellow	2223	2652	2435
Si chuan orange	Ripe	52	60	56
Qui jiang orange	Ripe	18	33	26
Guangxi Grapefruit	Ripe	105	1089	135
Yangtao	Ripe	----	----	260
Ci Mei Go	Ripe	----	----	1200

TABLE 3

Vitamin content in different fruits (mg/100g)

Food Name	Vitamin P content
Rosa Roxburghii Tratt Fruit, green, unripe	5981
Rosa Roxburghii Tratt Fruit, yellow, ripe	12895
Jiang huang plum	847
Ji xue plum	154
Peach	32
Apricot	316
Jin gai pear	92
Sha he tangerine	31
Pomelo	81
Cowpea Pod	528
Pea seedling	43
Pinch	10