

## YERBA MATE: EXPORT & TRADITION IN BRAZIL

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### ABSTRACT

**T**he yerba mate is an evergreen tree from the family of Aquifoliaceae. It usually grows 6-8 meters (19 - 26 ft) but it can reach up to 18 m (59 ft) in height. Its oval leaves are 12 cm (5 inches) long, dark green at the top and lighter green at the bottom, with serrated edges. Yerba mate is in bloom between October and December and has an inflorescence/cluster of small, white flowers. The fruit is red or dark brown, 5-8 mm ( ¼ inch) in diameter and appears between March and June. Each fruit has 4-5 yellow seeds with hard husk. The seeds are scattered by birds. Many seeds which appear to be ripe have no more than a fraction of an embryo which means that the germinating period may be quite long. The yerba mate tree comes from South American countries such as northern Argentina, southern Brazil, Paraguay and Uruguay. Commercially it is farmed mainly in Brazil, and to a lesser extent in Argentina and Paraguay. There are two varieties of yerba mate: *Ilex paraguariensis* var. *paraguariensis* (the leaves and twigs of this tree are used for yerba mate) and *Ilex paraguariensis* var. *vestita* (this tree is densely pubescent and has no commercial use). Both types may be found in some regions of north-eastern Argentina and Brazil. However, in the past 15 years, there was a several-fold increase in the literature studying *Ilex paraguariensis* properties showing effects such as antioxidant properties in chemical models and *ex vivo* lipoprotein studies, vasodilating and lipid reduction properties, antimutagenic effects, controversial association with oropharyngeal cancer, anti-glycation effects and weight reduction properties. Lately, promising results from human intervention studies have surfaced and the literature offers several developments on this area. The aim of this review is to provide a concise summary of the research published in the past and future of the yerba-mate market.

**Keywords:** yerba-mate, tea in Brazil, tradicional medicine, south american, holly-tree

## 1.Introduction

Yerba mate got its humble beginnings with the Guarani Indians in the highlands of Brazil, Paraguay, and Argentina. When the Spanish explorers came upon these Guarani in the early 16th century this drink intrigued them. The drink seemed to relieve their fatigue and produced a feeling of exhilaration. Later the Jesuits began to cultivate it and spread its influence. Although coffee is a common drink in many countries, and tea replaces it in others, Yerba mate is becoming a popular replacement. It was theorized for a while that mate did not contain caffeine, but recent studies have proven that there is caffeine present in the plant but it is possible that the other chemicals present may soften the effects of the caffeine. People who drink Yerba mate report less of the negative side effects common with caffeine but all of the positive ones. They have better mental clarity and focus, their energy levels increase and they feel more vitalized. (D'ARCY 1993)

Mate removes the bad cholesterol and prevent diseases such as cancer A number of studies have linked chronic consumption of yerba mate with increased risk of bladder, esophageal, lung, and head and neck cancers. Although researchers have yet to determine how or why yerba mate might raise cancer risk, there's evidence that steeping the tea at high temperatures may promote the absorption of certain carcinogenic compounds found in the plant. Inspired by the wave of teas from the East, such as green tea and white tea, researchers decided to investigate whether Brazil's native tea-and other countries marked by the pampas, as Uruguay, Paraguay and Argentina – would offer benefits to the body. And they found several. At the Federal University of Santa Catarina, the scientists noted that three doses of about 300 ml daily-almost 1 litre ml a day--are able to decrease in 13% bad cholesterol (LDL) and increase the good (HDL). "This action was observed in blood samples of 100 volunteers who included drink meals during 60 days", explains the biochemist. That this is due to saponins, substances that work as a kind of detergent and would react with bile acids, preventing the absorption of fat from the intestine. (Vale 1978) The same effect was confirmed by a anticolesterol work conducted by researchers at the University São Francisco, Bragança Paulista, in the interior of the State of São Paulo. "In addition to the drop in cholesterol rates, we note that the levels of triglycerides and sugar fell," reports one of the scientist . On the other side of the world, more precisely in the South Korea, scientists at the University of Yonsei have just arrived to the same conclusion: supplementation with yerba mate in the diet of rats decreased weight, abdominal fat and glucose. In other words, the mate is a promising option in the prevention of heart disease. We noticed a decrease of approximately 4% in weight of animals, as expert in food science. Advantages: Besides preventing plaques in the arteries, the yerba mate combat free radicals, molecules that occur naturally in the body and which promote the deterioration of cells. With this, it can be said that the infusion would assist in the prevention of cancer — something already observed by scientists at the University São Francisco. Know this: a cup of tea-mate after lunch falls very well. "There are indications that the infusion assist in bowel movements, favoring the digestion", "It also stimulates the production of bile, a liquid produced by the liver and responsible for digesting fats," To get all these advantages, it suggests: "do the infusion, wait ten minutes, strain and drink a cup and a half, three times a day," recommends. The period of validity of the preparation is 12:0 am. More than that, benefits.(Dukes 1997) You can also vary in drink and enjoy the leaves to prepare juices. Take the mate of corner and enjoy its benefits. Apex-Brazil project for export of yerba mate: The Act of creation of the Brazilian Association of exporters of Yerba Mate (Abimate), which took place in Brazil. The activity occurred in Apex-Brazil that launched the project for export of yerba mate in a meeting with 15 representatives of the sector. The organizers and promoters of this initiative that aims to increase the marketing of the product out of the country. Is a typical product from our region, which has great potential to win new markets, both as mate and derivatives. We can extend this important chain in Rio Grande do Sul. The Brazil is the world's largest exporter with a total of US\$ 36.7 million in 2007, but the potential to

expand this market is very large, according to studies of Apex-Brazil. The plain to triple the sales of yerba mate to the foreign markets in the next two years in the cities Passo Fundo, Erechim, Getúlio Vargas. The region has diversified production and is dedicated to development. Bring the export policy of the Federal Government and the need of the companies is good for the region. For the Union of Industries of the State of Rio Grande do Sul, one of the main attractions of the yerba mate abroad is the product phyto-therapeutic action. Scientifically the product has tonic properties, anti-aging, against Parkinsons, elimination of free radicals, blood cleansing and strengthening the immune system – attributes similar to those of green tea produced in China. In addition, the yerba mate is based on products like mate tea, yerba mate green tea, tererê, energy drinks and beer. Proponents of yerba mate argue that the herb gives users a natural high without the jitters associated with beverages containing high levels of caffeine, such as coffee and cola drinks. Writing in the March 16, 2009, issue of the Los Angeles Times, Elena Conis, a health educator and author, points out that yerba mate's caffeine content averages 80 mg per cup, which is twice the amount found in a cup of black tea but only half of that in a cup of coffee. However, people with a sensitivity to caffeine should limit their consumption of yerba mate, particularly if they already are getting caffeine from other sources. Excessive caffeine consumption can cause irritability, anxiety, restlessness, headaches, nausea and insomnia, suggests MayoClinic.com, which points out that men are generally more sensitive to caffeine than women. (D'ARCY 1991)

## **2.Promising export market of Yerba-mate**

Brazil is the world's largest exporter with a total of US\$ 36,166,361 in 2007. Other major exporters are: Argentina, US\$ 30,426,738, Paraguay, US\$ 763,564, France US\$ 748,312 and Uruguay, , US\$ 694,214. The main Brazilian markets are: Uruguay with US\$ 30,963,731 (85.61); Chile with US\$ 2,362,673 (6.53); United States with US\$ 652,715 and US\$ 650,919 with Germany, both with 1.80. Yerba mate is also exported to Argentina with 1.07 and France with 0.90. Sales for Belgium (0.40) grew 182% last year. Since 2003, sales to the international market increased by 126.8, after a fall of 24% between 2002 and 2003. Exports have been rising in recent years, but there is still space for more growth. Analyzing the importing countries of Argentina Syria, Chile, Brazil, Spain, USA, Uruguay, Lebanon-France and, the Argentine export high to Middle Eastern countries-for which Brazil, still does not export-explained by the great Arab colony at the borders of the countries of the Southern Cone. Concentrated consumption Yerba mate (*Ilex paraguariensis*) is a natural product that rises spontaneously in the South (Paraná, Santa Catarina and Rio Grande do Sul) and, to a lesser extent, in Mato Grosso do Sul. The Rio Grande do Sul is the largest Brazilian consumer, with 65% of the total, followed by Paraná with 17%, with 12% Santa Catarina and 6% Mato Grosso do Sul . With respect to production, occurs a reversal and a better balance: the Paraná participates with 36%, Santa Catarina with 32%, Rio Grande do Sul 29% and Mato Grosso do Sul 3%. The it sector represents an important economic activity in those States, generating thousands of jobs in the period of harvest. Promotion of products and services are made by the Brazilian Agency of Promotion of Exports and Investments is responsible for the promotion of products and services in the international market. The basis of the work of the Apex-Brazil is the partnership with the private sector, always seeking to expand the number of exporting companies, open new markets for Brazilian products and services and strengthen the Brazilian presence in traditional markets. Focused on six production complexes-agribusiness, construction and home, entertainment and services, machines and equipment, fashion, technology and health – the Agency develops projects with organizations representing more than 60 sectors of the economy in all regions of Brazil, spurring companies to integrate international trade shows, trade missions, exhibitions, business meetings and supporting the process of internationalization. Market opportunity studies, economy and competitiveness, among others, make up the portfolio of products offered by Apex-Brazil. The Agency

also has installed business centers in Miami (USA), Frankfurt (Germany), Lisbon (Portugal) Dubai (United Arab Emirates) and Warsaw (Poland). Two new centres are being implemented in Beijing (China) and Havana (Cuba). Another focus is the attraction of foreign direct investment to Brazil.

### **3.Export of yerba mate by MERCOSUR industries**

The Department of Agriculture and supply hosted, in Curitiba, the 5th meeting of the Mercamate, formed by representatives of it sector of Brazil, Argentina, Paraguay and Uruguay, the Group seeks to organize to export and compete in the international market of natural beverages. During the meeting, participants discussed the Organization of the segment from the establishment of partnerships and a common agenda. Were also addressed topics such as access to new technologies of production and processing and the possibility of launching new products for export. According to the Rural Economy Department, the industry of mate of Paraná moved R\$ 127.5 million in gross revenues in 2010, with a production of 296 thousand tons of the herb. The sector involves, directly and indirectly, about 200 thousand people, according to the industry trade union of Yerba Mate. The Paraná Government want to be more in tune with the industry, which mainly involves small producers – the majority in the southern part of the State, where the alternatives are more scarce. Want to hear the industry and establish possibilities of support with regard to technical assistance and agricultural research, to increase the efficiency in property and generate more income in the entire production chain. Mercamate meetings are essential to understand the difficulties of producing regions and adopt mechanisms to strengthen production, including seeking new uses and industrial uses from yerba mate leaf. To improve the performance, and that requires research and guidance. The industries have the challenge of making a higher value-added product. Is possible to develop a new product from the yerba mate to meet the international market of natural drinks up. To this end, the sector must organize to develop more efficient production techniques. The industrial segment, in turn, need to find a way of exploring institutional markets and develop new products, and prepare second export of yerba mate to USA. In the proximity of the city Turvo administration, Brazil, lives of about 300 families of Indians Kaygangues . The city opened a marketing channel native herb extracted by indigenous people with the company Guayagui, of California, in the United States. In 2011, the village has exported about 20 tons and herb for this year is provided for export in the month of August. The export was the first held by an indigenous village in Brazil. The yerba mate is benefited by Ervateira Polemate, situated in Turvo. The company had to fit with industrial equipment for processing organic certifier. According to the vice-cacique of the village of Marrecas, exporting brings many benefits. "In addition to being a social issue, the American company paid about 30% more than the Brazilian companies would pay for the production," . "For us this was very good," In addition to open the marketing channel, the city helps the Indians in question of the producer, obligatory for the sale and export of native grass. The village also received from the federal Government a new school. In the 19th century, the Paraguay bans export of yerba mate out of the country. This makes Argentina and Uruguay to replace the Paraguayan yerba mate by Brazilian, developing its cultivation in Paraná and Santa Catarina, once unpopulated regions. It's called the cycle of Yerba Mate. As a result, the Paraná that constituted the fifth judicial district of the province of São Paulo it emancipates to form the Province of Paraná, in the year 1853.

#### 4-Brazil wants to export yerba mate to the Arabs

The country wins to increase its exports of 10% yerba mate between 2010 and 2011. Half of this growth came from sales to the Arab world. Between 2010 and 2011, Brazil to increase its exports of 10% mate. Second the Manager of export Project of the Brazilian Association of Exporters of yerba mate (Abimate), half of this value came from exports to the Arab countries.

In 2008, Brazil exported 34 thousand tons of the product, the equivalent of US\$ 46 million. Currently, Brazil is the world's largest exporter of yerba mate, selling for 32 countries. The biggest buyers of Brazilian yerba mate are in Latin America, where they go 90% product exports. The main destination of sales of the country is the Uruguay, followed by Chile. France, Germany and United States are also among the major markets of yerba mate from Brazil. Recently, the Abimate struck a deal with the Brazilian Agency of Promotion of Exports and Investments (Apex-Brazil) to further expand exports of the product. One of the main focuses of this agreement are the Arab countries, especially Saudi Arabia, Syria and Egypt. The goal is to increase (exports) and the Arab market is very interesting. Abimate manage that, currently, Brazil exports most of its mate on bulk, and that the plans are to make the country pass selling more value-added products, such as cosmetics, soft drinks and extracts. The Association brings together 28 companies, of which 12 are already enabled for export and seven are regular exporters. By the first half of 2010, the Abimate develop marketing activities to promote the quality of Brazilian yerba mate in the international market and also the range of products available. The participating companies of Association of a trade fair in Austria, where they exhibit their products. The entity also negotiate its participation in the Gulf Food Dubai, 2010. The Association also was present at the Anuga food fair, Germany. The Abimate is evaluating participation in trade missions to Arab countries and companies intend to publicize their products in these markets so have signed partnerships in the region. "We know we are countries that consume much tea, but the yerba mate is still unknown". Meeting discusses export of yerba mate by industries of Mercosur, by the Department of Agriculture, in Curitiba, promotes the 5th meeting of the Mercomate. Formed by representatives of it sector of Brazil, Argentina, Paraguay and Uruguay, the Group seeks to organize to export and compete in the international market of natural beverages. During the meeting, participants discussed the Organization of the segment from the establishment of partnerships and a common agenda. Were also addressed topics such as access to new technologies of production and processing and the possibility of launching new products for export. According to the Rural Economy Department, the industry of Paraná moved R\$ 127.5 million in gross revenues in 2010, with a production of 296 thousand tons of the herb. The sector involves, directly and indirectly, about 200 thousand people, according to the industry trade union of Yerba Mate. At the opening of the meeting, the Paraná Government want to be more in tune with the industry, which mainly involves small producers – the majority in the southern part of the State, where the alternatives are more scarce. We want to hear the industry and establish possibilities of support with regard to technical assistance and agricultural research, to increase the efficiency in property and generate more income in the entire production chain.

##### *4.1 Next tables and Graphs describes a promising market:*

During the period prior to the Christian Era that was known at Greek civilization, several philosophers can be highlighted by his works of natural history. Among these include Hippocrates, considered the father of modern medicine, characterized by taking nature as a guide in the choice of remedies (Natura medicatrix) and the Theophrastus (372 BC), pupil of Aristotle. Is record of use of botanical species Papaver somniferum, herb whose active ingredient is morphine of Sumerian Documents 5,000 BC refer to nature and describe their properties. (VALLE, 1978)

Table 1- Brazilian Exports

Mercadoria	Peso líquido (em t)											Part. (%)	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007'	1997	2006
Chá preto	2.992	2.831	2.597	3.304	3.726	3.662	3.919	3.239	3.011	2.862	1.420	6,1	2,9
Chá verde	411	377	318	398	355	317	291	354	396	377	169	0,8	0,4
Preparações de chá e mate	147	8	80	47	128	82	117	65	20	39	30	0,3	0,0
Mate	25.190	25.433	25.409	26.555	26.697	25.484	25.689	28.552	31.441	31.619	9.381	51,4	32,4
Canela	0	0	10	3	261	2.942	2.239	2.256	2.321	2.850	182	0,0	2,9
Cravo-da-india	138	184	460	65	2.487	4.135	2.598	6.211	2.107	3.533	1.146	0,3	3,6
Demais especiarias	94	6	2	10	4	376	908	923	759	863	185	0,2	0,9
Gengibre	5.969	7.874	8.558	7.741	9.883	5.844	5.107	6.002	9.106	7.070	52	12,2	7,3
Noz-moscada	0	0	0	0	0	0	196	474	549	1.490	0	0,0	1,5
Pimenta piper seca	13.962	17.249	19.617	20.449	36.975	38.230	38.972	43.003	38.424	42.200	13.395	28,5	43,3
Pimentões e pimentas secos	66	547	3.848	4.072	6.171	6.085	6.503	8.391	8.948	4.604	2.007	0,1	4,7
Subtotal	48.970	54.509	60.897	62.644	86.688	87.156	86.538	99.470	97.082	97.506	27.967	100,0	100,0
Outros	1	0	0	2	1	1	4	51	196	2	0	0,0	0,0
Total	48.970	54.509	60.897	62.646	86.689	87.157	86.541	99.521	97.278	97.508	27.967	100,0	100,0
Mercadoria	Valor (em US\$1.000)											Part. (%)	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007'	1997	2006
Chá preto	3.903	4.399	3.607	4.531	4.718	4.136	4.207	3.585	3.655	3.681	2.157	3,7	2,1
Chá verde	2.389	2.097	1.732	1.965	1.737	1.417	1.486	1.886	2.155	2.095	805	2,2	1,2
Preparações de chá e mate	301	89	171	187	655	168	440	158	138	234	520	0,3	0,1
Mate	34.608	34.077	30.174	28.178	27.729	20.990	15.947	18.104	25.674	32.276	10.266	32,4	18,8
Canela	3	5	8	11	318	3.535	2.723	3.399	3.446	3.973	221	0,0	2,3
Cravo-da-india	113	172	946	267	14.542	23.422	4.609	13.568	5.932	11.441	3.557	0,1	6,7
Demais especiarias	134	21	3	35	45	990	2.123	1.563	1.637	2.159	452	0,1	1,3
Gengibre	5.976	7.131	6.746	5.476	6.060	3.664	3.097	5.073	6.677	5.405	28	5,6	3,2
Noz-moscada	0	0	0	1	2	1	1.416	3.578	5.641	13.064	0	0,0	7,6
Pimenta piper seca	59.376	77.670	87.448	69.152	59.677	59.466	58.771	65.073	56.245	85.278	33.419	55,6	49,8
Pimentões e pimentas secos	19	1.100	8.252	8.992	12.567	12.329	13.516	17.254	23.076	11.794	5.388	0,0	6,9
Subtotal	106.822	126.761	139.085	118.794	128.049	130.117	108.336	133.242	134.275	171.399	56.813	100,0	100,0
Outros	2	1	1	10	2	2	15	51	1.489	8	0	0,0	0,0
Total	106.824	126.762	139.086	118.804	128.052	130.119	108.351	133.293	135.765	171.407	56.813	100,0	100,0

Source: Secex

Brazil exports 80% of plantation, price 22% in 2012.

Table 2- Santa Catarina exports

Source: Secex

(US\$ 1.000 - FOB)

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010
Erva-mate e derivados	1.935	1.304	1.048	1.100	3.487	8.625	14.207	14.034	17.728

Table 3- Brazilian states production

	Brazil		PR		SC		RS		MS	
	N	C	N	C	N	C	N	C	N	C
1950	60.321	-	19.510	-	12.077	-	16.745	-	11.331	-
1960	110.676	-	33.068	-	34.301	-	29.399	-	13.908	-
1970	113.460	-	31.755	-	23.182	-	29.399	-	124	-
1975	95.109	-	30.587	-	32.709		30.493		1.320	-
1980	101.878	18.588	38.919	2	33.790	3.457	26.436	15.117	2.732	12
1985	108.132	35.808	71.024	2.897	52.937	6.840	21.724	26.071	3.818	15
1990	145.649	147.072	54.830	6.106	51.825	4.996	34.311	13.5970	4.683	-
1995	204.065	222.377	59.022	17.246	79.350	27.930	63.412	17.7181	2.281	20
2000										

Source: IBGE (1955, 1963, 1973, 1977, 1986, 1987/1988, 1997, 1998)

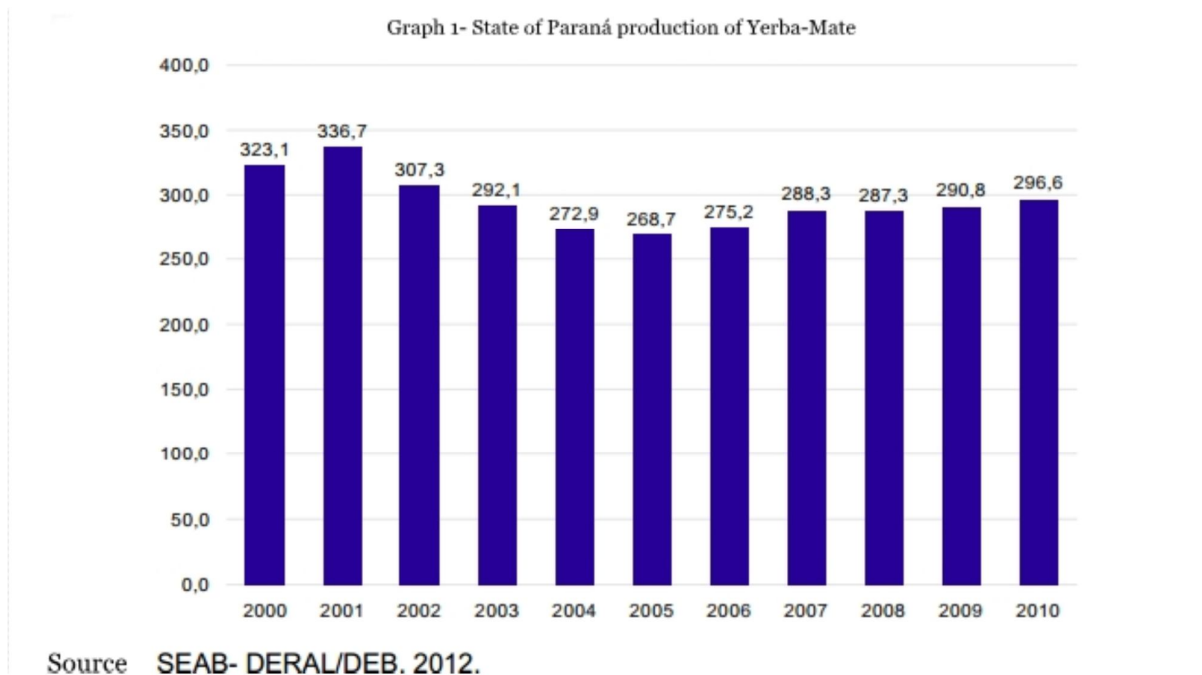
PR= Paraná

SC= Santa Catarina

RS= Rio Grande do Sul

MS= Mato Grosso do Sul

As in all forms of self-medication, the use of herbs represents a potential risk to human health. Herbal safety is especially important, because most of the time products are not described by a healthcare professional. (DUKES, 1977; D'Arcy, 1991; D'Arcy, 1993).

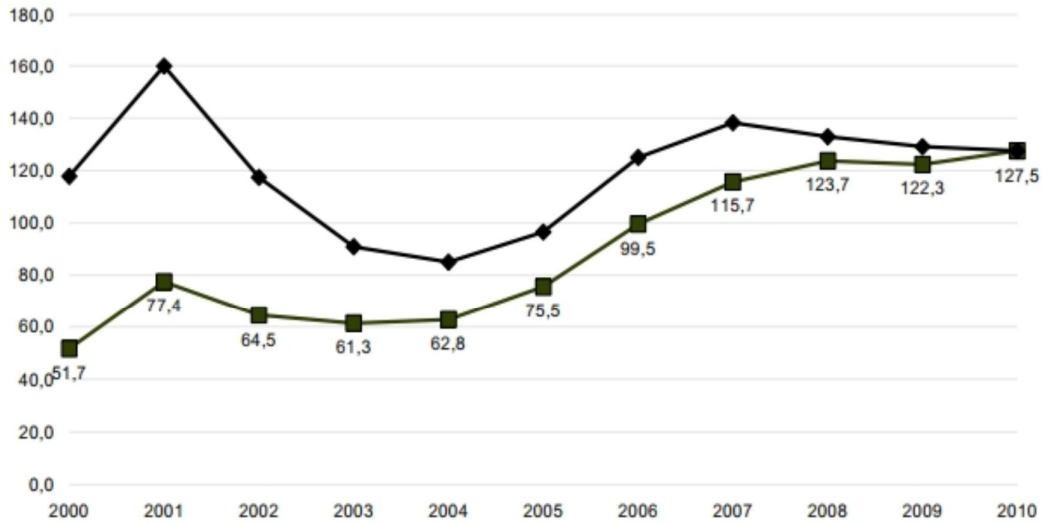


Apud: DORNELES 2012

There is little information about the interaction of plants when ingested in the form of teas with the conventional medicines. You can try, however, to identify plants that can interfere with specific categories of conventional medicines, based on their chemical and pharmacological properties and side effects. By example, herbs that contains high levels of coumarins can increase the coagulation time of blood when consumed in high prolonged doses or excessive use has diuretic action that plan can enhance any diuretic therapy that is in progress or the effect of certain medications, because of hypokalemia. (ANDERSON, LA, 1985; D'Arcy, 1993).

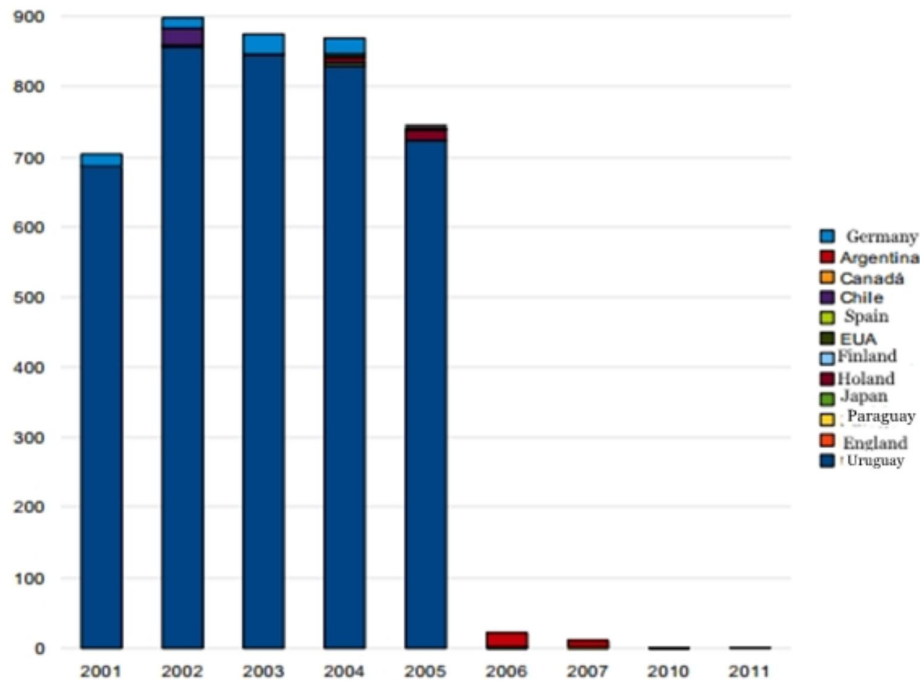


Graph 2- Paraná production



Source: Secex

Graph 3- Brazilian exports- state of Paraná in ton.



MDIC/ALICEWEB, 2012.

#### 4.2 Description:

Yerba mate is a small evergreen shrub like plant. It produces small white four petal flowers with a hint of green and later red berries around 4-6 mm in diameter.

#### 4.3 Plant Parts Used:

Leaves and stem. Yerba mate is often prepared by cutting the leaves, and sometimes the stems, and drying them over a fire, resulting in a more smoky flavor, or curing them in boiling water and then baking them off in a pan or oven. The dried leaves are then packaged. They are sold as tea bags or loose. The traditionalists like to steep the loose tea leaves in a gourd and then sip them through a metal spoon-like straw with a filter on the end, called a bombilla. In some circles the cup will be filled with hot (not boiling) water and the host will drink the liquid down before adding water to the leaves again and passing it on, with each subsequent guest doing the same. This can be done 20-12 times without sacrificing the flavor or healthful qualities of the drink, of course the other things you might be sharing could decrease the healthful benefits.

#### 4.4 Plant raw material

*Ilex paraguariensis* St. Hilarie is a South American tree from which leaves and twigs are used to prepare a tea (known as "erva-mate" in Portuguese or "yerba mate" in Spanish), being one of the most commonly consumed beverages in several South American countries, including Brazil (especially in the South states), Uruguay, Paraguay and Argentina. In South America, approximately 30% of the population drinks more than 1 L/day of this beverage. It represents an important crop, with more than 1,400 ton/year. Besides the substantial amounts of purine alkaloids and caffeoyl-quinic acid derivatives, the leaves of *Ilex paraguariensis* contain also a significant amount of triterpenoid saponins. Monodesmosidic and bidesmosidic saponins have been isolated from the aerial parts of *Ilex paraguariensis*, all compounds containing the ursolic or oleanolic moieties. These bitter and highly water-soluble compounds are likely to be partially responsible for the taste of the beverage and also for foaming observed in the "mate". Additionally, *Ilex paraguariensis* is also used in folk medicine for treating several diseases, e.g. arthritis, slow digestions, liver diseases, headache, rheumatism, and obesity. Some of the therapeutic properties of this plant are possibly due to its saponin content, like the potential antiinflammatory and hypocholesterolemic uses. The biological applications of saponins are, usually, based on their membrane-disrupting properties, and formation of large mixed micelles with steroids and bile acid. The surfactant and biological properties of saponins justify the interest of extraction and quantify these constituents of "erva-mate". At the present time, no method has been described for assaying saponins in *Ilex paraguariensis* raw material or extracts. These compounds are poor chromophores, what explains the difficulties in assay them.

#### Conclusions

Symbol- tree of Rio Grande do Sul, the yerba mate (*Ilex paraguariensis*) suffers from deforestation in the State. More common in the Taquari Valley region of North-Western Italy, the are fundamental to the economy and raw material of more traditional drink of the RS, the mate. The leaves of the trees are of a deep green and the plants, when they are not pruned, can reach up to 10 meters high. With the expansion of crops, especially soybeans, many native herbal were destroyed. Today, less than 10% of which exist in the natural state. Most of the areas where the plant is grown is planted by man, e Mate industry Union (RS Sindimate). Since 1980, by a State Decree, the yerba mate is considered to be the symbol of the State . The Rio Grande do Sul, Brazil is the leading consumer of the plant in Brazil. In 2010, more than 61% of herb produced in the country was used in the State, according to data from Sindimate. Of 90% to 95% of the production is destined for the mate. But more than an ingredient in a drink, the yerba mate can be used to produce different types of foods and even for medicinal purposes, it is nutritious, diuretic, stimulant and is good for the skin and the heart. " until it is aphrodisiac," The period is the off-season in general, but, under a proper management, can be extracted throughout the year; This ensures the color and characteristics that the domestic market of the toasted tea requires. In Rio Grande do Sul herbal pruning takes place mostly between the months in which the begin to cease until the late spring; the plant was kept in 20% to 30% and reformed for six months to two years then has branches and leaves cut for the production of grass, no shaking with low temperatures. Rustic with the climate and culturally conceived as strong, and symbol, the *Ilex Paraguariensis*, best known species of the plant, is native to the colder climate and produced from a small party in the southern state of Mato Grosso do Sul to the central region of the Rio Grande, South to northern Argentina, Paraguay and Uruguay, according to data from Emater, responsible for Forest tree research, strategically established in the State of Paraná. The affinity between research and product is not for nothing. Historically the Paraná State kept the yerba mate as the main generator of foreign exchange of the half of the 16th century until 1632 in the Province Del Guairá. This territory included almost the entire Paraná, according to data from the Historic Park of Mate, and Guarani in the region were using the mate as we know

today in rudimentary apparatus. Herb that supported the base of an economy and featuring a flag, together with another strong State symbol, the Araucaria. It was there that the first industrialization process and collection of copy in Curitiba (also in São Paulo) by the French botanist Auguste de Saint-Hilaire in 1822, after the publication of the scientific name in 1825 from Paraguay herb; of course the State retained the largest production of yerba mate until recently. According to data of IBGE, presented at the 2010 Mercamate, a kind of itinerant MERCOSUR forum bringing together representatives of the it industry of producing countries, production in tons of yerba mate prepared in Paraná overcame in four times the production of 24,764 tons of Rio Grande do Sul; the nearby Santa Catarina was also ahead. Today the Gauchos increased production . Of the 425,641 tons produced in southern States, 43.6%, come from the five poles of yerba mate in Rio Grande do Sul, followed by 43.3% from the State of Paraná, Santa Catarina and 12.7% 0.4% of Mato Grosso do Sul, according Emater. Compared to the production of the Brazilian States, Argentina and Paraguay dominate in more than half the market of yerba mate processed and consumed and also in planted area, including exporting to Brazil.

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