

Brazilian consumption of flowers and ornamental plants: habits, practices and trends⁽¹⁾

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ABSTRACT

The Brazilian consumption of flowers and ornamental plants reproduces the main typical conditions of developing countries, which it shares with other nations of Latin America, Asia and Africa. These include low per capita consumption rates, the centralization of purchases in a few traditional items, and the concentration of demand on dates and special occasions of the national calendar of celebrations. However, in recent decades, strong growth rates have been observed for this sector, signaling a potent and promising market for producers, wholesalers, retailers, floral designers, landscapists and other professionals working in the floral segment. This article analyzes original quantitative research data applied throughout Brazil, from 2014 to 2016, by the market intelligence firm Hórtica Consultoria and by the Union of the Retail Trade of Flowers and Ornamental Plants of the State of São Paulo (Sindiflores), revealing preferences, habits, practices and tendencies for the consumption of flowers and ornamental plants in Brazil.

Keywords: consumption, flowers and ornamental plants, Brazilian retail market.

RESUMO

Consumo brasileiro de flores e plantas ornamentais: hábitos, práticas e tendências contemporâneas

o consumo brasileiro de flores e plantas ornamentais reproduz as principais condições típicas de países em desenvolvimento, as quais compartilha com outras nações da América Latina, Ásia e África. Entre essas, destacam-se os baixos índices e consumo per capita, a centralização das compras em poucos itens tradicionais e a concentração da demanda em datas e ocasiões especiais do calendário nacional de celebrações. Contudo, nas últimas décadas, têm se observado índices de crescimento vigorosos para esta cadeia produtiva, sinalizando para um mercado potente e promissor tanto para produtores, quanto para atacadistas, varejistas, designers florais, paisagistas e outros profissionais atuantes no segmento. O presente artigo analisa dados originais de pesquisas quantitativas aplicadas em todo o Brasil, no período de 2014 a 2016, pela empresa de inteligência de mercado Hórtica Consultoria e pelo Sindicato do Comércio Varejista de Flores e Plantas Ornamentais do Estado de São Paulo (Sindiflores), revelando preferências, hábitos, práticas e tendências para o consumo de flores e plantas ornamentais no Brasil.

Palavras-chave: consumo, flores e plantas ornamentais, mercado varejista brasileiro.

1. INTRODUCTION

The commercial floriculture, understood as the professional and business activity of production, commerce and distribution of flowers and plants cultivated for ornamental purposes, represents one of the most promising segments of contemporary Brazilian agribusiness. In 2016, the sector moved the amount of R\$ 6.5 billion, at the end consumer level, with growth of 6% over the previous year, sustaining a favorable economic performance, despite the context of the economic and financial crisis that affects the country (JUNQUEIRA and PEETZ, 2016).

In the period from 2008 to 2011, the sector grew, on average, 8% to 10% per year in the quantities offered in the market and between 12% to 15% per year, in sales value. In 2012, the market grew between 7% and 8% in quantity and between 10% and 12% in marketed value. In 2013, the observed growth was between 7% and 8%, both in quantity

and value (JUNQUEIRA and PEETZ, 2014, 2015). Since then, with the introduction and aggravation of economic problems, and with the exhaustion of the main sources of market expansion that had characterized the previous years - such as the entry of the supermarket segment into the retail distribution of flowers and ornamental plants in Brazil - the Growth stabilization trend of 6% per year (JUNQUEIRA and PEETZ, 2016).

The good performance of this production chain in Brazil is largely due to the constant and constant incorporation of state-of-the-art technology, one of the trademarks of the activity in the country. In fact, it should be remembered that most horticultural techniques and technologies Now in vogue in the national agribusiness were initially brought in and incorporated by the floriculture, later generalized to the chains of the olericultura and, also, in some segments of intensive fruit-growing. Notable examples in this sense are represented by plasticulture, air conditioning and nutritional

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management techniques in protected environments, the development and management of intellectual property in cultivars, electronic auctions technologies and wholesale and retail online sales, among many others that could be to baste.

However, the national floricultural activity is not homogeneous. On the contrary, there are immense disparities and technological systems of cultivation and commercialization, varying according to macro-regional areas and vocations, segments (cut, vase, landscaping and gardening), climatic and ecological conditions (tropical, subtropical, temperate), business culture and socioeconomic level of producers, dynamics and potentials of consumer markets etc. (JUNQUEIRA and PEETZ, 2002, 2005).

Even for the most advanced poles in floriculture, the technological challenge still imposes itself with centrality, requiring new investments and decisive action of the products in favor of competitive innovation and the integral attention to the new demands, demands and expectations of the distribution segments - increasingly displaced to self-service - and consumers always mutant in their needs and desires.

However, the greatest challenge for the continuity of the growth and development of the flower and ornamental plants production chain in Brazil is to increase the consumption of its products, not only in quantitative terms, but mainly in the increase of purchase opportunities, make buying flowers and ornamental plants a daily and personal habit (JUNQUEIRA and PEETZ, 2011a, 2011b). Only in this way could the sector gain more uniform income distribution during the year, making it more sustainable and independent of the seasonal cycles of consumption (JUNQUEIRA and PEETZ, 2008). The present research aims to contribute to the better knowledge of this relevant aspect of the market, pointing also to trends favorable to future sector development.

2. STRUCTURAL ASPECTS OF BRAZILIAN FLORICULTURE

Mainly concentrated in the domestic consumer market, which in recent years has directed 99.3% of the total value traded, Brazil's chain of flowers and ornamental plants covers an area of 13,468 thousand hectares, exploited by 7,800 And cultivation of about 350 adapted native and exotic species and cultivars (JUNQUEIRA and PEETZ, 2015; PAIVA et al, 2016).

Commercial floriculture practiced in Brazil is concentrated, significantly in the State of São Paulo (48.9%), particularly in the geographical regions around the municipal poles of Atibaia and Holambra. From these regions were organized supply flows of short, medium and long distances, that managed to get the flowers from São Paulo at least to the capitals and main poles of consumption throughout the country.

As an important historical consequence of this concentration in Brazil - in which few poles of production sustain the supply flows of large territorial bands - over the last few decades there has been a remarkable homogenization of consumption habits, where flowers

and Regional plants ended up losing the importance and preference of their former consumers, given the quality, standard, abundant and regular offerings of products from the most professional and competitive floriculture in the South and Southeast regions of Brazil, but especially in the State of São Paulo, More particularly, those produced by the producers associated with and integrated with the Veiling Holambra Cooperative (JUNQUEIRA and PEETZ, 2005a, 2005b).

Thus, despite the enormous wealth of the country's flora and culture, the consumption of flowers and ornamental plants began to focus on a very small product range, practically indistinct from the South to the North of Brazil.

The market of the productive chain of ornamental flowers and plants in Brazil is composed mainly of the segment of ornamental plants for landscaping and gardening, which accounts for 42% of the total financial movement with these goods. The second place in the sectoral ranking is occupied by the sector of cut flowers and foliage, with a relative percentage participation of 34%, followed in the third and last position by the flowers and bottled plants, with 24% (JUNQUEIRA and PEETZ, 2015). The main species of cut flowers cultivated in Brazil today are: roses (30%), chrysanthemums (15%), lisianthus (12%), lily (7%) and gerbera (6%). As for flowers and potted ornamental plants, the six main species are in descending order of relative importance: orchids (14%), lily (7.5%), chrysanthemum (7%), kalanchoe (6.4%), violet (6%) and bromeliad (6%).

3. THE CONSUMPTION OF FLOWERS AND ORNAMENTAL PLANTS IN BRAZIL: CHARACTERISTICS AND TRENDS

The average annual Brazilian per capita consumption of flowers and ornamental plants is currently estimated at R\$ 31,5. Due to the most diverse socioeconomic, cultural, geoclimatic and ecological conditions, the per capita consumption index of flowers and ornamental plants is diversified between the different geographic macro-regions and the Brazilian states (JUNQUEIRA; PEETZ, 2011, 2015).

In this context, it is observed that the Federal District concentrates the highest per capita consumption of flowers and ornamental plants of the country, being followed, in the top ten positions of the national ranking and in descending order of relative percentage importance, by the states of Minas Gerais, Rio Santa Catarina, São Paulo, Rio Grande do Sul, Goiás, Espírito Santo, Paraná and Ceará.

These indices are still considered low compared to those observed in a large part of the countries with more developed markets and, thus, signal to an important potential of future expansion of the consumer market. According to classification standards for flower and plant consumption in the international market, Brazilian consumption of flowers and ornamental plants should be understood as an intermediary between the typical patterns of the markets of the emerging countries and those of those countries considered with growing floral markets. Of the two typologies, according to the different geographical regions and socio-cultural strata of the population.

Table 1. Main consumption characteristics of flowers and ornamental plants, in different countries in world-wide market.

Groups of countries by development stages of their markets	Main consumption characteristics
Emerging markets	Low <i>per capita</i> consumption; Low percentage of buyers; Tradicional assortment; Special occasions of consumption (Mother Day, Valentine's Day, Women's Day, Weddings, Funerals etc.)
Growth markets	Strong growth of <i>per capita</i> consumption; Growth percentage of buyers; Consumer wants to have more choice than ther tradicional; More gift occasions are developing (birthdays, Easter, Christmas, visits, Friday Bouquet etc.).
Saturated markets	Minimal growth in consumption or even stagnation or decrease; Flowers for everybody, every day; Much interest in innovation of assortment; Trends in flowers and plants are important (interior decoration and personal style).

Source: JUNQUEIRA and PEETZ (2008)

Brazilian consumption in the main seasonal dates

One of the main characteristics of buyers of flowers and ornamental plants in Brazil is to concentrate their demands strongly on a few specific dates throughout the year, with special emphasis on Mother's Day (on the second Sunday of May), Valentine's Day (June, 12), Christmas (December 25) and New Year's Day (December 31), International Women's Day (March 8), Secretary's Day (September 30) and Father's Day (second Sunday of August) among few other opportunities.

Based on the commercialization of Cooperativa Veiling Holambra - the main national wholesale market for flowers and ornamental plants -, the main consumption dates in the total sectoral marketing are as follows: Mother's Day: 9.1%; Christmas and New Year's Eve: 7.3%; All Souls' Day: 4.8%; International Women's Day: 4.4% and Valentine's Day: 4.2% (JUNQUEIRA and PEETZ, 2015).

In the segment of flower shops and flower and ornamental plant retailers, Mother's Day represents the main commercial opportunity, and sales are usually up to four times higher than the average for other weeks of the year. According to research by Hórtica Consulting and Market Intelligence and Sindiflores, 83% of Brazilian flower shops confirm the primacy of this date over the others in the sale of flowers and ornamental plants throughout the country.

The second place in the sales ranking is usually divided, depending on the year, between Valentine's Day and International Women's Day (JUNQUEIRA and PEETZ, 2012). Unlike most of the world, especially the US and many European countries in Brazil, Valentine's Day does not take place on North American Valentine's Day (February 14). The institution of this celebration in June was due to a marketing action created and implemented by João Dória (1919-2000), in 1949, through the Agency Standard Propaganda. The need to create a stimulus for traditionally weak retail sales in the middle of the year

led to the idea of creating a new consumer-driven date that was very well received and encouraged by the market (LOPES, 2008). The date chosen coincides with the eve of the day dedicated to Saint Anthony, considered the holy matchmaker and the patron saint of falling in love, love and passion (AKI and PEROSA, 2002).

International Women's Day began to be timidly exploited in Brazil in the 1990s. A significant part of the movement of the flower trade on this date is due to business purchases to honor employees, employees and clients (AKI and PEROSA, 2002). So in years where the date happens on a weekend (Saturday or Sunday), sales weaken considerably, since most companies do not operate these days.

Together with these three dates, the All Souls's Day comprises all the main dates of consumption of flowers and ornamental plants in Brazil. For this celebration, the main flower consumed is bottled chrysanthemum, due to several simultaneous characteristics: i) competitive prices in a commodity market; ii) good cost-benefit ratio, and iii) no need for water to remain durable in cemeteries as a sanitary condition required by the authorities to control diseases transmitted by *Aedes aegypti* (JUNQUEIRA and PEETZ, 2015)

Other important dates for the trade of flowers and ornamental plants in Brazil are: Easter, Father's Day, early spring, Secretary's Day, Christmas and New Year's Eve.

From 2014, the Sindiflores (Retail Trade Union of Flowers and Ornamental Plants) of the State of São Paulo (Sindiflores), in partnership with Hórtica Consulting and Market Intelligence, started to carry out the project "Research on Expectations of Sale of Flowers and Ornamental Plants in Major Dates of Consumption". The average obtained for main dates and celebrations, in relation to the species preferred when buying presents, for the period 2014-2016 are shown in the Table 2.

Table 2. BRAZIL. Flowers preferred to present in the main dates of consumption, average 2014-2016 (%).

Date	Flower							
	Roses	Orchids	Mixed bouquets	Potted flowers	Baskets and flower arrangements	Chrysanthemums	Other flowers and plants	Total
North American Valentine's Day (February 14th)	51	10	24	5	5	0	5	100
International Women's Day (March 8)	61	7	9	11	9	0	3	100
Easter (end of April)	11	13	0	0	47	8	21	100
Mothers Day (2nd Sunday of May)	38	22	5	18	6	0	11	100
Valentine's Day (12 de junho)	64	13	6	3	6	0	8	100
Father's Day (2nd Sunday in August)	0	19	0	0	28	15	38	100
Beginning of Spring (September 23th)	34	19	12	8	0	12	15	100
Secretary's Day (September 30)	45	19	10	13	0	10	3	100
All Souls' Day (November 2)	21	1	0	14	3	53	8	100
Christmans and New Year's Eve (25 and 31 of December)	17	6	0	19	11	0	47	100

Source: Trade Union of the Retail Trade of Flowers and Ornamental Plants of the State of São Paulo (Sindiflores) and Hórtica Consultoria e Treinamento. Survey on Sale Expectations of Flowers and Ornamental Plants in the Main Dates of Consumption, 2014.

It is observed, from the data indicated, that roses are widely dominant in the category of floral gifts, mostly in the color red, especially for Valentine's Day (64%), International Women's Day (61%), North American Valentine's Day (51%), Secretary's Day (45%), Mother's Day (38%), Beginning of Spring (34%) and All Soul's Day (21%). On these occasions, roses imported from Colombia and Ecuador acquire great penetration, accounting for significant portions of the floricultural supply in the corresponding periods.

In Brazil, there is little consumer flexibility to include pink roses or other Valentine's Day colorings, unlike the American market on Valentine's Day, for example, where they are widely penetrated. Previous attempts by importers to bring roses into these alternate colors (pink, white, mixed and other) have resulted in a major sales failure.

The orchids have been conquering important positions in the Brazilian floral market, representing the second option in the purchases to present in the main commemorative dates. Preferred species are those that produce large flowers, especially when arranged in long inflorescences, as in the case of Phalenopsis and Cymbidium. As a sector trend, there has been a shift in purchases for mini orchids (phalaenopsis, mainly, followed by denfal and other species). The main sales opportunity occurs on Mother's Day (22% of preferences), followed by

For Father's Day, Secretary's Day and beginnig of Spring (19% each), followed by Easter and Valentine's Day (13% each).

Because they are economical options, with a good cost-benefit ratio, the flowers and bottled plants have been acquiring a strong penetration in sales for gifts. The largest participation of these items occurs during Christmas and New Year's Eve (19%), Mother's Day (18%), All Soul's Day (14%), Secretary's Day (13%) and International Women's Day (11%). For Christmas, the main flowers are poinsettias, consumed especially in the color red traditional version. However, pink, white, yellow and cream blossoms are also acquired, as well as those of different shades, known as "glitter" cultivars. In the main wholesale markets of Brazilian floriculture, only around 900 thousand units of pots of poinsettia are sold at Christmas time. In addition to poinsettias, Christmas trees also occupy a prominent place in the buying preference of Brazilian consumers (15% of total sales of flowers and plants to date).

In contemporary urban Brazil, two tree species stand out in the Christmas ornamentation: the Dutch tui (*Cupressus macrocarpa*) and the pine tree. The first is the sales leader, with the annual marketing of more than 270 thousand units, only for this purpose. In November and December, more than 80% of the sales of the tuias produced take place. The rest is sold, throughout the year, for landscaping and

gardening. Their prices are shaped according to the variety (which can be the aurea, apple, lemon, Europa, silver and stricta, with darker leaves and more resistant branches for decoration), size and height of the plant. For Brazilians, the preferred height for their Christmas tree is 1.5 meters, although in recent years there has been increasing sales for the smaller ones, with only 0.70 m.

As for the pines, the main commercialized varieties are the cypress, the silver-pine, the golden pine and the blue pine, all of the genus *Chamaecyparis*. The commercialization of these plants in the main wholesale markets tends to increase, on average, 70% between the first half of November and Christmas.

As for the New Year's Eve, the preference lies in white flowers, especially roses, gladiolus, chrysanthemums, daisies, lilies, aster and gypsophilla, among others. Part of this tradition was inherited from the Afro-Brazilian rituals, especially from Umbanda and Candomblé, with special emphasis on the launching ceremonies of the Iemanjá offerings at sea at the new Year's Eve.

The use of other colors for flowers thrown to the sea, or waters in general, represents miscegenations and overlaps with religious ritual, but is affected by the sphere of profane symbology, in which different colors are adopted for requests related to love (rose), Passion (red) and prosperity (yellow).

Baskets with flowers, breakfast, afternoon tea or happy hour - a specialty of many flower shops and virtual stores - hold prominent positions, especially at Easter, where they are sold with chocolates in different presentations (47%) and for the celebration of the Father's Day (28%).

In All Soul's Day, the majority preference rests on pots of chrysanthemums (53%), for reasons already pointed out.

Some cultural specificities of consumption are also revealed by the research. So is the sunflower and other so-called field flowers that resemble the sunflower are most widely purchased for Easter, for being the symbol flower of this date. For this period, the searches for floral table arrangements and white flowers also increase. To celebrate the beginning of spring, purchases of plants for garden (15%) grow.

The main contemporary trends for the consumption of flowers and ornamental plants in the international market are shown below, with the corresponding reflections foreseen in Brazil, as pointed out by Junqueira and Peetz (2015).

4. CONTEMPORARY INTERNATIONAL TRENDS FOR THE CONSUMPTION OF FLOWERS AND ORNAMENTAL PLANTS

Greater differentiation in products, packaging, processes and presentation, in the pursuit of innovation as a prime factor of growth, achievement and maintenance of market positions;

Strong pressure in traditional markets for the permanent reduction of prices, increase of quality and facilities and constancy of supply;

Growth of the consumption of bottled plants, on the cut market, because they present a better perception of the cost x benefit to the consumer, greater durability and ease in the treatment and handling, requiring less care and time of dedication to the domestic maintenance, as well as for the practicality of not requiring vessels or containers specially available for ornamental purpose;

Production in increasing displacement for countries with lower production costs;

Consumption centered in the Northern Hemisphere; Production centered in the Southern Hemisphere;

Growth in the sizes and economic sizes of production and distribution companies;

Growth of consumption of cut flowers by 14% in the next five years, concentrated in Eastern Europe, USA and Asia;

The Netherlands will continue to be the logistics, distributor, commercial and trendsetter center of the world;

Growth of self-service participation in global market supply.

Some detachable trends for the consumption of flowers and ornamental plants in Brazil:

Growth of consumption in the interior: Brazil has 4.6 thousand municipalities outside the capitals and metropolitan regions. This group brings together 94.3 million inhabitants, equivalent to 49.0% of the total national population. The vast majority (74.0%) live in urban areas and their mass of consumption adds up to R\$ 827 billion per year, which represents 38.0% of the country's total consumption (SEBRAE; DATA POPULAR; CNM, 2014). This market points to great business potential for micro and small businesses, more flexible to explore new niches and places of consumption, as well as to get closer, to know and to establish ties and relational connections with new audiences, markets and local and regional demands. In this sense, it also corroborates the fact that 73% of the municipalities in the interior of Brazil have less than 20,000 inhabitants, which diminishes the economic interest of large stores and commerce networks;

Growth of the consumption of the elderly: Consumers over 60 years of age should move, in 2014, R \$ 400 billion. There are 22.3 million people, of whom 5.4 million are still in the labor market, with or without a formal contract. Despite this potential of consumption, the retail still gives little attention to the so-called third age. Seven out of ten retirees have monthly income guaranteed by Social Security. Only 20% of their income depends on the relationship with the labor market;

Emergence of new consumers: According to the Brazilian Demographic Census, IBGE (2011), there are

67,000 homoaffectionate couples in the country. This group has proven to have a high potential for consumption, with a turnover of R\$ 6.9 billion in 2013, according to the Data Popular Institute. In addition to the better financial situation resulting from the sharing of domestic income - in 55.0% of households homoaffectionate domestic income counts on the contribution of the two partners - this public is considered more educated, with higher income levels and, therefore, With more financial availability for consumption of more sophisticated items. According to the Instituto Popular Popular, in 2013, 54.0% of Brazilian homosexual couples belonged to the upper class, while 35.0% were middle class and only 11.0% were low income. The Southeast region is the one with the largest number of unions, with 52.6% of the total. It is a highly attractive market, although still very little explored by the sectorial marketing of the productive chain of flowers and ornamental plants. In general, it is considered that only the sectors of fashion, cosmetics and tourism have exploited this economic potential.

5. FINAL CONSIDERATIONS

The productive chain of flowers and ornamental plants in Brazil reveals and proves a remarkable potential for growth and economic development, positioning itself as a promising segment of the national agribusiness. Because of the valuable characteristics it has in terms of supplying large numbers of rural jobs - especially women and young people - in rural and urban areas, and guaranteeing the survival of many small farms close to cities, it must be promoted and encouraged on a permanent basis(BUAINAIN and BATALHA, 2007; TOMBOLATO et al, 2013; JUNQUEIRA and PEETZ, 2014, 2015, 2016; PAIVA et al, 2016)..

In this direction, the present research aims to contribute with the technical and scientific knowledge about the sector, demonstrating the main characteristics of the buying and consumption habits of flowers and ornamental plants and pointing to the main future trends and opportunities for this sector.

AUTHORS CONTRIBUTIONS

A.H.J.: Research, analyzing, writing and review the paper.
M.S.P.: Research, analyzing, writing and review the paper.

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