

# Social and environmental responsibility of the floriculture industry in South Africa

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## Abstract

**Floriculture is a small, but important component of the agri-business in South Africa, as it is labour intensive and provides much needed job opportunities. Critical and often limited resources such as water and land are required in the cultivation of flowers, therefore it is necessary to ensure that the cultivation and distribution impact of ornamental products on the environment is acceptable and sustainable. The floricultural industry itself is responsible to ensure that all flowers and potted plants meet acceptable levels as set by social and environmental criteria. Several legislative requirements are in place to protect the labour force and the environment in South Africa. As yet, no national auditing bodies exist to ascertain that production practices of flower farms operate inside the legal framework. However, some South African flower growers and exporters are members of the SIZA (Sustainability Initiative of South Africa) programme, whilst a significant percentage of indigenous wild flower harvesters are affiliated with the SHP (Sustainable Harvesting Programme). All suppliers to Woolworths, a leading South African retailer in cut flowers and indoor plants, are required to pass an ethical audit. All major suppliers participate in Farming for the Future (FFF) audits that focus on a holistic and environmental approach to farming. Woolworths collaborates closely with Stellenbosch University and other research institutions to promote the best production and postharvest principles and practices. This approach supports and drives a culture of social and environmental responsibility within the Southern African floriculture industry.**

**Keywords:** cut flower industry, ethical compliance, farming for the future, retailer responsibility, sustainable floriculture

## INTRODUCTION

The international floriculture industry has developed into a global value chain where flowers are cultivated in one part and sold in another part of the world. Bek et al. (2017) asked the valid question: "Where do these flowers come from in the first place? Who has produced them, what are their working conditions like, and what are the impacts upon the environment? What information is available to consumers to make informed choices about the flowers they buy?". Worldwide the floriculture industry has been rightly criticised due to the negative impact that the production imposes on the environment through water mismanagement, poor waste management and an excessive carbon footprint (Bek, 2017). Furthermore, the use of pesticides on flowers is under scrutiny, not only for the labourers, but also for the end user.

Kenya, the third largest flower producing country in the world, supplies 28% of all flowers to Europe (Altman, 2016). Although all major flower farms in Kenya are routinely subjected to several auditing companies, including that of the Kenya Flower Council, the flower industry is still under constant criticism from a social and environmental perspective. A large percentage of the flower production is based around the Lake Naivasha Basin region, to such an extent that the flower industry is one of the major forces driving the economy of

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this region. Yet, the industry is under heavy and consistent criticism regarding the drop of the water level of the lake, together with the possible polluting and negative impact the flower production may have on the biodiversity of the region (Mekonnen et al., 2012). Even the Fairtrade Initiative, where the aim is for the end user to support community projects, receives increasingly negative feedback, as was reported in a critical review by Dolan (2007) on the support of Fairtrade supplies to communities in Kenya.

In South Africa the floriculture industry and consumers alike are well aware of these criticisms associated with flower production. In response to these concerns one of the leading retailers in Floriculture has put systems in place to ensure that the flowers and potted plants on offer to customers would have a minimum negative impact on the environment.

Floriculture in South Africa consists of the following broad categories of the cut flower and nursery industries, respectively. The cut flower industry has two very distinct components, which are the traditional and the indigenous flower industries. The traditional (commodity) flower industry includes products such as roses, lilies, chrysanthemums, along with greenery and seasonal flowers. It is estimated that 120 ha of cut flowers in South Africa are cultivated under protection, being either glass or net covered, with approximately 40 ha being produced under open field conditions.

The indigenous flower industry utilizes plant products mainly from the Cape Floral Kingdom (Huysamer et al., 2016). This section is also widely known as the Fynbos or Cape Flora industry and supplies flowers to both the international flower market and the local market. The Fynbos industry harvests floral and foliage products from about 22 000 ha of natural vegetation (Gerber and Hoffman, 2014), whereas approximately 926 ha are orchard-based (Van Zyl, 2017), or cultivated from seed lots known as broadcast sowing.

Floriculture is a small, but important component of the agricultural sector in South Africa, as it supplies critical and much-needed job and export opportunities. It is estimated that 17 500 jobs have been created in the flower industry in South Africa (Matthee et al., 2006). According to Mr. Andre De Witt (personal communication) an estimated 188 million stems and bunches of cut flowers were sold on the Multiflora auction in Johannesburg during the period February 2016 to February 2017. A small percentage of stems sold on this market are also imported from other African countries such as Kenya, Ethiopia and Zimbabwe. Based on the sales rankings from the South African Multiflora auction, roses are the most popular floral product, followed by chrysanthemums (Table 1). It is interesting that roses are also the top cut flower product on the Flora Holland auction and that the market share % is very similar for these two markets (Table 2; Royal Flora Holland, 2016). Tulips, however, which are ranked third on the Dutch auction markets, do not appear within the South African top ten cut flowers, even though a variety of tulip products is produced and on offer in South Africa. An estimated 22 million stems of fresh Cape Flora are being exported per year, with an additional 5 million stems that are sold on the Johannesburg flower market. These figures exclude any direct sales from growers to retail and the informal flower sector.

The nursery industry in South Africa is comprised of indoor plants and garden and landscape plants, of which an estimated 30 ha are under protection. As South Africa has been continuously faced with critical water shortages over the last few years and to date, this had a serious impact on landscape and gardening activities. One outcome is that the demand for water-wise plants and indigenous plants has increased significantly. The indoor plant customers in South Africa prefer orchids and low maintenance plants such as succulents. International retail flower and indoor plant sales have grown over the last couple of years, with retailers in South Africa strongly following this trend. Direct sales from growers to retail outlets have become a viable option for cut flower and indoor plant growers. In South African retail, the most popular house plants are *Phalaenopsis* orchids, with nearly 50% (in monetary value) of all indoor plants sales being these orchids. Similarly, on the Royal Flora Holland auctions, *Phalaenopsis* is also the top-selling houseplant, with approximately 135 million units that were sold in 2016. The trading of flowers forms a critical part of retail as it directly adds to a pleasant shopping experience for customers in

the respective stores. This is also the main reason why flowers and plants are mostly positioned directly at the entrance of a store. However, along with this enjoyable offering of flowers and plants in retail stores, comes a social and environmental responsibility.

Table 1. Top 10 Cut flowers sold on the Multiflora market in Johannesburg, South Africa, from February 2016 to February 2017 (A. De Witt, personal communication, 2017).

Ranking	Product	Market share (%)
1	Roses	27.62
2	Chrysanthemum Sprays	17.68
3	Carnations	4.05
4	Lilies Asiflorum	3.66
5	Lisianthus	3.08
6	Gypsophila	2.80
7	Lilies Longiflorum	2.64
8	Chrysanthemum blooms	2.47
9	Gerbera	2.41
10	Lilies Orientals	2.25

Table 2. Top 10 cut flowers sold on Royal Flora Holland Market during 2016 (Royal Flower Holland Annual report, 2016).

Ranking	Product	Market share (%)
1	Roses	27.36
2	Chrysanthemum (spray)	11.26
3	Tulips	10.34
4	Lilium Lily	5.90
5	Gerbera	5.21
6	Lisianthus	2.53
7	Chrysanthemum (blooms)	2.31
8	Freesia	1.94
9	Cymbidium	1.87
10	Hydrangea	1.87

In South Africa there is legislation in place to protect both workers and the environment, yet with no national auditing body to enforce this legislation. A limited, but growing number of flower producers in South Africa are members of the Sustainability Initiative of South Africa (SIZA). To ensure that floriculture products sold by Woolworths comply with ethical and environmental guidelines, the retailer follows a strategy where independent audits are conducted on primary suppliers. The reduction of packaging material is also a priority area within the “Good Business Journey”. The floriculture department in Woolworths actively strives to reduce unnecessary packaging and to promote the use of local containers to reduce the carbon footprint.

## MATERIALS AND METHODS

### Auditing process and acts

All suppliers of cut flower and plant products to Woolworths must be audited for ethical compliance. Woolworths is responsible for the payment of these audits, but if the supplier fails then they are responsible for the payment of the follow up audit. The ethical audit is conducted by International Britannia Limited (IBL), an independent auditing organisation. IBL resorts under the Food Safety Services International (FSSI) group of companies situated in the UK and South Africa, specializing in food safety and ethical compliance auditing. This audit is mandatory for all suppliers to Woolworths. The process is

a consultative audit that is conducted either annually or biennially. The audit focuses on issues of labour; living conditions of workers; wages, hours of work and entitlements; discrimination; freedom of association and collective bargaining; the environment; and health and safety.

The following Acts are covered in the ethical audit: Occupational Health and Safety Act (Act No 85 of 1993); Compensation for Occupational Injuries and Diseases Act (Act No. 130 of 1993: as amended by Compensation for Occupational Injuries and Diseases Amendment Act, No 61 of 1997); Basic Conditions of Employment Act (Act 75 of 1997; Basic Conditions of Employment Amendment Act No 11 of 2002); Employment Equity Act (Act No. 55 of 1998); Labour Relations Act No. 66 of 1995 as amended by Labour Relations Amendment Act, No 42 of 1996; Proclamation, No 66 of 1996; Labour Relations Amendment Act, No 127 of 1998; Labour Relations Amendment Act, No 12 of 2002; Unemployment Insurance Fund Act (Act No 63 of 2001); and Skills Development Levies Act (No 97 of 1998 amended No 24 of 2010).

### **Farming for the future (FFF) program**

The environmental audit as required for the FFF is an integral process within the Good Business Journey (GBJ) of Woolworths, which is now in its tenth year (King and Thobela, 2014). This audit is conducted by Enviroscientific®, an independent organization responsible for the development and implementation of the Woolworths Soil, Water and Biodiversity Sustainability Program. The program focuses on: soil management; irrigation and water management; environmental legal requirements; biodiversity management; waste and water management; substrate and run-off management; cooling and energy; and pest management. The responsibility of ethical compliance is situated within the commercial team, but with inputs from the technical teams. Environmental audit compliance, however, is the responsibility of the technologists. The technologists work closely with the growers and research institutions such as Stellenbosch University to promote the best practise principles.

### **RESULTS AND DISCUSSION**

In the past financial cycle all floriculture suppliers to Woolworths successfully passed their ethical compliance audit, with an average score of over 94% and no critical failures. With regard to the environmental component, 87% of all house plant products qualified to display the FFF logo, whereas only 37% of the cut flower products complied. The low percentage of compliance achieved on cut flowers is a direct result of foliage material that was not subjected for auditing for FFF. As yet, too many new entrants supply small amounts, making it too costly. All local rose products qualified for FFF. All the primary components used in bouquets could be sourced from FFF approved farms, which was not the case with all the filler greenery material. A particular challenge is to obtain compliance for the Cape Flora products that are on offer to the Woolworths customers. These indigenous floral products which are 95% orchard cultivated, are aligned with the FFF principles, but not all farms are currently being audited. However, indigenous wild harvested products are mostly obtained from farms that are active members of SHP (Sustainable Harvesting Programme).

The main supplier of indoor plants to Woolworths has the largest solar heating plant in the southern hemisphere to heat water for the greenhouses. All the local rose farmers are following integrated pest management strategies. The harvesting of rainwater and recycling of water forms an important component within the cultivation of floricultural products in the Woolworths supplier base. In the past financial cycle, the offer to customers for most of the indigenous plants was without any wrapping or flower food. Woolworths has also reduced the size of the wrapping on products such as herbs. Such a reduction on the use of wrapping material saved 10% of packaging material, and received special recognition by Bek (2017) in his blog. By introducing a novel treatment option for orchids, the waste on *Phalaenopsis* orchids has decreased by over 30%. The retailer is also investigating, in conjunction with Stellenbosch University, the application of water to minimise desiccation of plants during the display and retail period in stores, which will result in a further decrease

in green waste.

Woolworths is putting a significant emphasis on social and environmental sourcing, yet the South African floriculture industry can still be more focussed in their efforts (D. Bek, pers. commun., 2017). More work is required to align the SA industry to international standards, specifically with regard to consistency across the industry. According to Bek, some growers are excellent in terms of meeting the required standards, whereas others are less so inclined.

## CONCLUSIONS

The following conclusions can be drawn from the study:

- In 2007, Woolworths formalized the company's ongoing commitment to sustainability with the launch of the Good Business Journey.
- Good Business Journey is a comprehensive plan with the aim to make a difference in the key areas of sustainable farming and fishing; energy, water, and waste management, and transformation and social development.
- Sustainability is therefore one of the strategic focus areas for this business plan and is integrated into the strategic planning cycle.
- In recognition of its achievements, Woolworths is the three times recipient of the "International Responsible Retailer of the Year" at the World Retail Awards, and was named one of the 16 sustainability champions in the developing world by the World Economic Forum.
- Woolworths has provided proof that by integrating sustainability into business practices, key social and environmental issues are being addressed as is faced by South Africa and the world at large.
- Results achieved by the floriculture department, testifies to the department contribution to the Good Business Journey.
- The Floriculture department in Woolworths will focus its strategies on effective water use and waste management, in addition to energy saving, to ensure an even more environmentally friendly product can be offered to their discerning customers.

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