

SCENARIO OF *GLADIOLUS* PRODUCTION IN PUNJAB, PAKISTAN

TARIQ RIAZ, SALIK NAWAZ KHAN* AND ARSHAD JAVAID

*Institute of Mycology and Plant Pathology,
University of the Punjab Quaid-e-Azam Campus, Lahore-54590, Pakistan*

Abstract

Consumption of cut flowers is going to increase day by day in Pakistan. It is related with the rising living standards, education and electronic media that have promoted this business in recent years. The production and consumption of cut flowers has increased over the past decade and this increase is expected to continue. However, local consumption and demand is yet to be satisfied. *Gladiolus* is one of the most popular cut flowers. The consumers appreciate it due to its magnificent inflorescence. A survey of the Punjab was carried out during 2004-2005 to investigate the production status of *Gladiolus* in the province in comparison to other cut flowers. Structured questionnaires were distributed among the growers and sellers of the Punjab. The results of the survey revealed that varied agro-climatic conditions in Punjab could allow commercial cultivation of all varieties of *Gladiolus* flowers either in open field or under green house conditions. However, the commercial cultivation of *Gladiolus* in the country has so far been restricted to limited areas of the province mainly due to domestic market for these flowers. Comprehensive survey indicates *Gladiolus* is next to roses in preference by the consumers in various cities of the Punjab.

Introduction

Traditionally flowers are grown for aesthetic, social function and extraction of essential oils and manufacturing of perfumes (Byczynski, 1997). But now, floriculture has been identified as a potential business due to divergence of farmers towards high-value floral crops and utilization of flowers in social and industrial level in Punjab, Pakistan. Hence commercial floriculture has emerged inside the country. The most important floricultural crops in the Pakistan cut flower trade are roses, *Gladiolus*, tuberose, Iris, Carnation, Narcissus, Lilies, Freesia, Statice and gerbera etc.

The production and consumption of cut flowers has also increased over the past decade and this increase is expected to continue due to number of indefinite factors in Pakistan. A member of family Iridaceae, *Gladiolus* is native of South Africa, is globally cultivated commercially for ornamental and medicinal purposes (Misra, 1977; Van Wyk, *et al.*, 1997; Voigt, 1997). *Gladiolus* spp., (Tourn.) L. are among the elite cut flowers due to their different shapes and hues and excellent vase life (Bose *et al.*, 2003). *Gladiolus* is also an important ornamental flower that provides an excellent model for the study of tepal senescence since flowers in different stages of senescence are present on the same spike (Azeez *et al.*, 2007). It is an ethylene insensitive flower whose exogenous ethylene and ethylene inhibitors have no effect on the petal senescence process (Arora *et al.*, 2006). It is a popular bulbous plant that is grown for both as potted and aesthetic cut flower in the country. Agriculture in Punjab is dominated by the wheat-paddy cropping cycle. Recently, many growers have switched to floriculture from conventional cropping system; because decrease in cultivated land due to town planning; soil deterioration and small holdings are promising limitations in the province. Moreover, non-conventional crops provide more per rupee return than routine crops. The total area under flower in Punjab Province is estimated around 9000 acres, under flower farming such as Roses, *Gladiolus*, tuberose and jasmine. Over 450 acres are under the cultivation of *Gladiolus* in Punjab (Anon., 2003).

*Corresponding author: salik_nawaz@yahoo.com

Table 1. Response of the consumer, sellers and growers.

Source of data collection	Consumer level (%)		Seller level (%)	Grower level (%)
	Male	Female		
Questionnaire	82	94	85	96
Telephone	52	10	-	-
E-mail	30	15	-	-
Post Card	48	12	-	-

Gladiolus has potential to earn foreign exchange. It has short life cycle (110-120 days). Wide varietal wealth, better economic returns than conventional crops and wide range of climatic conditions have contributed its growth potential. Proper infra structure for floriculture is lacking in the Punjab, but, construction of roads and motorways and involvement of academic and governmental institutions raised its business. Introduction of new social values added seasonal marketing and employments in cities. The objective of this study was to investigate the constraints related with scope of *Gladiolus* production in the Punjab Province.

Material and Method

Detailed surveys were conducted to analyze the *Gladiolus* production during production months starting from September 2004 to the Mid April 2005 in the Province. Three different structured questionnaires for consumers, sellers and growers were circulated to collect the data about the production and marketing of *Gladiolus*. Questions related to survey were based on social, economical psychological and agronomic parameters. Information collected from the surveys was analyzed and expressed in percentage to evaluate the consumption, preference of the consumers and market status. The study area was *Gladiolus* growing regions of Punjab, Pakistan. Stakeholders of *Gladiolus* from Lahore, Rawalpindi, Kasur, Pattoki, Okara, Sheikhpura Faisalabad, Narowal and Federal Capital, Islamabad. Fifty telephones and fifty e-mail contacts were used and 300 structured questionnaires were circulated among the sellers and consumers (Table 1). Thirty-five *Gladiolus* growers of the Punjab Province were selected randomly for interview. Data collected are presented in percentages.

Result and Discussion

Floriculture could not get established up to the mark in spite of availability of all natural conditions in the country. However, in recent years, production of cut flowers especially *Gladiolus* has increased noticeably in the Punjab province (Anon., 2003). This increase is related with emerging constraints of present farming system. In Pakistan, owing to steady increase in demand of flowers because of generating employment for the urban poor, provision of adequate community services, encouragement from the community, governmental and non-governmental entities contributing to the efforts to reduce poverty and improve the quality of life for low-income families, floriculture has become one of the important commercial trades in agriculture, which has potential to generate employment. Kasur and Pattoki is the hub of *Gladiolus* production. Lahore, Chunian, Okara, Kallarkhar, Rawalpindi, Faisalabad, Narowal, Sahiwal and Gujranwala are important constituencies where it is cultivated on commercial scale. Lahore,

Rawalpindi, Faisalabad and Federal Capital Islamabad are important cities for its consumption. Construction of motorway, G.T. Road and Ring Road also has improved the transportation among the cities and within the city. Good quality flowers get high prices in cities like Lahore, Rawalpindi and Faisalabad depending upon season.

The results of surveys at grower level indicate that 37% farmers have shifted to floriculture from conventional cropping pattern only in Kasur district of the Punjab (Fig. 1). The main reason for this change is related with economic return and consideration of floribusiness as an innovation. Many growers in Kasur district have switched to *Gladiolus* production from sugar cane due to net economic return for which they do not have to wait for payments. The establishment of floral markets in big cities likes Lahore, Rawalpindi, Faisalabad and Islamabad is another aspect.

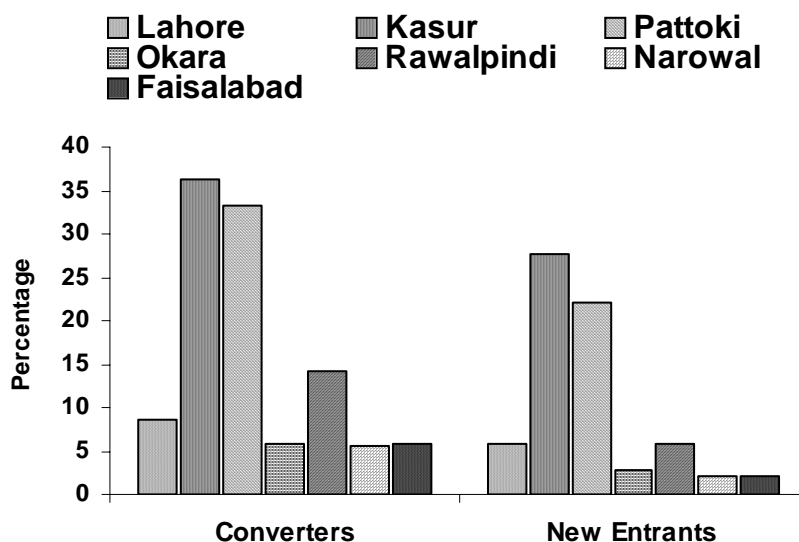


Fig. 1. Trend of shift from conventional to non-conventional crops in Punjab, Pakistan

Data presented in Table 2 indicates that *Gladiolus* is the third most popular cut flower among the males of 15-25 years while it ranks second among the males of 26-60 years of age. Similarly, *Gladiolus* is also a third most popular cut flower among the females of 15-25 years and ranked third among the females of 26-35 years of age (Table 2).

Uncertified germplasm, lack of storage facilities for corms, poor farming and cultural practices, need of infrastructure for supply and marketing both locally and globally, demand of training to growers, guidance about the selection of pesticides and their applications, non availability of cool chain system near airports are major obstacles in production and quality of *Gladiolus*. From July to August climate is not suitable for its production in Punjab due to monsoon season. Floribusiness in Punjab still need proper marketing infrastructure. The middleman determines prices of the cut flowers and it fluctuates daily. The middleman or the shopkeepers take a major share of the profit than the grower. Fig. 2 indicates the various business channels in Punjab Province.

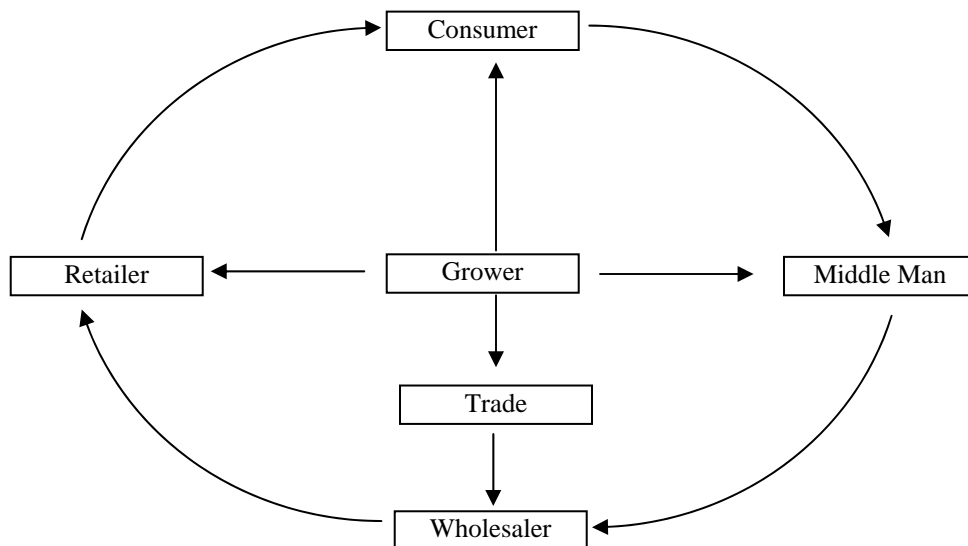


Fig. 2. Marketing channels for *Gladiolus* business in Punjab, Pakistan.

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