

Critical Factors of Cut Flowers

Critical factors before starting cut flower production

See FAQI Fact Sheet 1.5 and 3.3 for relevant contact information and suggestions on how to gather more information.

Farm selection

Water - Having adequate good quality water is a most important consideration when producing quality cut flowers but it is often overlooked until it is too late? Town water is expensive but in some areas the water supply from bores and dams may be too salty, or unreliable, for flower production. Water supplies must not run out during crop production as flower quality is severely affected by water stress. If you intend to collect and re-use irrigation water, it should first be filtered and chlorinated to minimise disease problems.

Climate - Choose crops that will thrive under your local climatic conditions. Some flowers grow best under controlled conditions (e.g. tunnels, under lights) while others are grown in under field conditions. Determine your crop's specific requirements. Flower crops need good airflow around and within them to reduce disease problems. Conversely, they also need protection from strong winds and windbreaks will help. Most flower crops are frost sensitive, especially while flowers are developing and severe frost may check a season's growth. Climatic data can be obtained for the general area from the Bureau of Meteorology.

Soil - Few flower crops will tolerate waterlogging so a moderately fertile, well-drained soil is essential. However, each species have different specific requirements. Research drainage and soil nutrient requirements before choosing a crop to plant. Drainage can be improved by growing in raised beds but this is only a short-term solution if subsoil drainage is poor. Look at any existing native vegetation on the property. Learn more about the trees naturally growing on a proposed farm site. They can give an indication of the soil condition e.g. indicating poorly drained soils, or different soil types. We recommend sending soil samples away for testing to a diagnostic lab (see **FAQI Fact Sheet 3.3** for a selection of listings) to check whether your proposed site is suitable.

Pest and diseases - Most flower crops suffer from a range of pests and diseases. To reduce outbreaks is essential for growers to keep good records, check the crop regularly, monitor and maintain hygiene, maintain equipment such as spray packs correctly, learn to recognise problems in their early stages, use chemicals only as directed and learn to act appropriately.

It is also recommended that professional advice be sought from companies providing diagnostic identification of diseases and disorders. This is because many different diseases and disorders bear close similarity in their outward presentation and even very experienced growers can misdiagnose leading to incorrect treatment being applied. For contact information, access the FAQI website at www.flowersqueensland.asn.au under Technical Services or the *FAQI Industry Contacts Database*. Some pathogens such as *Fusarium spp.* and *Phytophthora spp.* and pests such as nematodes are soil borne and can build up under certain crops.

How far away are you from an international airport? Is their reliable domestic transport from your farm to the airport? How long are the flights to your export destination? Are these direct or could your flowers be held up in transit? On arrival, how long will customs clearance take?

How much farm equipment do I have/need e.g. tractors, spray equipment shed with a concrete floor.

Legislative requirements - These include permits and authorities to propagate, cultivate and market cut flowers. The requirements differ with crops and markets. Make enquires to such institutions as Queensland Parks and Wildlife Service, Environment Australia and wholesale and export agents to determine which permits and licenses are applicable to your circumstances.

For example,

1. Exporting and importing cut flowers involves a number of permits such as phytosanitary certifications and inspections to/from specified markets. Contact the Australian Quarantine Inspection Service and Australian Custom officials or relevant agents;
2. Cultivating of Australian natives identified as at risk require a permit as an Authorised Cultivator while propagators of these plants need to be Authorised Cultivators. Alternatively a Commercial Wildlife License may be more applicable;
3. Bush harvesting of some species cannot be undertaken without the relevant permits. Some of these permits will cost you money as will import duties and tariffs, and customs clearance in the country of destination.

Financial requirements - What is your level of capitalisation? How much operating capital do you have? What will the terms of payment be and will cash flows be adequate to sustain your business? What are the costs of air or sea freight? Is there any government grants you could apply for?

Product requirements - Here you must consider production economics, and assured supply, product selection and quality (pre and postharvest treatments, pesticides, insect control), product presentation and

grading, bunching, stem length, leaves, flowers, stems packaging, quality control, cool chain transport and storage.

How much labour is required - There are very few part-time flower growers. Producing high quality crops requires a great deal of time. As with most other industries there are peak, busy time of the year. A 12-15 hour working day, including trips to the markets of delivering flowers to florists may not be the relaxing, peaceful lifestyle you originally planned. It's a very labour-intensive occupation, with all harvesting done by hand. Only very large farms can afford machinery for grading and bunching flowers. Most growers' grade and bunch by hand. Much of the routine work associated with growing such as planting, 'tucking in' pruning and disbudding is also done by hand.

Production and Postharvest

Learn as much as possible before planting - First, do as much research as possible to understand the industry. Talk to a wide range of people who handle flowers, including wholesalers and florists. You need to find out about the best varieties, what time of year they are grown, what quantities and colours are required. A mix of short term and perennial crops may be prudent. Find out about postharvest handling requirements including packaging and preservative solutions. You need to get a firm idea of quality expected, bunch size required, priced, and whether or not bunches should be sleeved. Few people will commit themselves in advance to taking your produce. Florists and wholesalers are often asked these questions so they are understandably fairly skeptical. Many prefer to wait until you have grown some flowers so they can gauge your expertise as a grower. Start with a few crops and get to know how to grow and market them very well.

How much has to be in place for shelter, permanent structure, and crops to grow -

Should I consider greenhouses?

Greenhouse grown flowers are generally of higher and more consistent quality than outdoor (field) crops. Crops are protected from the weather and you can manipulate the greenhouse environment to reduce pest and disease problems as well as allowing more efficient use of water. Using micro-irrigation reduces waste and run off problems and can dramatically reduce the incidence of foliage diseases. Greenhouse production systems have a higher initial establishment cost, but are increasingly necessary to compete on the domestic market. However, you should assess potential returns before investing large amounts of capital in greenhouses and associated facilities.

Irrigation requirements - Watering flowers is not the case of fitting a sprinkler to a pipe and hoping for the best. Nearly all producers are near areas. Water management has become a key issue for producers who must cope with rising prices of town water supplies and variable quality of other water sources. They must also be aware of noise pollution (pumps),

soil degradation (erosion), drainage and runoff problems (nutrient loads). Good irrigation methods will increase yield and quality and help make flower production more reliable.

Chemical and pest requirements

Soil disinfestations - Flower growing is a very intensive horticultural activity. If grown in the field, crop rotation is essential to reduce build up of certain pests and diseases. Disinfestation by fumigation may be necessary if land area is limited or for production under tunnels. This is usually expensive, requiring licensed operators and hazardous chemicals. Chemicals available will be restricted in the future. For instance, methyl bromide, the most commonly used soil fumigant, is being phased out due to its ozone depleting nature. Weed control is a constant problem in flower growing. A limited range of herbicides is registered for flower crops.

When growing flowers in pots, effective potting media preparation should be conducted to reduce weed problems. Under field conditions, most growers use them mainly between rows, relying on chipping or hand weeding of the beds. Using organic mulch may reduce weed establishment during the life of the crop. Eliminate existing weeds thoroughly before planting. Cultivate the soil and leave it fallow for a time, allowing any remaining weed seeds to germinate. Remove these also. For perennial crops, laying down weed mat before planting may be the answer for long-term weed control.

Marketing

Current market prices - Market prices for common lines are available from two industry magazines, Australian Horticulture and Flower Link. Both are published monthly and available by subscription. Use these prices as a guide to general trends only. Don't sign any contracts until you have checked market prices to make sure that the deal is fair.

Supply situation - Over 60 different cut flower and foliage types are widely grown. They include annual, perennial and bulb crops, foliages and transition flowers. Whether they sell fluctuates with fashion and economic trends. This means no one can realistically tell you exactly what to grow. Some growers specialise in only a few types while other produce a wider variety.

Demand - Flowers are not necessities of life, sales and trends change like those in the fashion industry. Some flowers may have appeal on some markets and not on others or they may sell well at some times of the year only. In the marketplace, traditional flower lines are divided into major and minor lines. Major lines are the mainstay of the industry and retain their market share. These include roses, carnations and

chrysanthemums. Minor flowers include a huge range including asters, bulbs crops, daisies, gerberas, lavender, orchids, stock and zinnia, to name a few. There is a market for transition (of Filler) flowers and foliage as well. While unusual lines tend to attract buyers, florists may be wary of something with an unknown vase life.

The most easily grown crops are also easily oversupplied. During times of peak production, prices of such lines are very low, barely covering the cost of picking and bunching.

Export vs domestic - Market expansion relies on two things. The first is an increase in the domestic market. Australians traditionally spend little on cut flowers when compared with Europeans and Japanese but this is changing. Peak demand for fresh flowers occurs for Valentine's Day and Mother's Day, and newer occasions like Secretary's Day are boosting demand at other times. The second is further development of the export market. Exporting should not be seen as an outlet for surplus product. Although advantage can be taken of good 'spot markets', most export order require reliability of supply in both quantity and quality. Successful marketing of flowers on the domestic market is essential before attempting to export.

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