



Whitepaper Flowers

Innovative insights:
transport your fresh cut
flowers all over the world,
without quality loss

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Flowers not only create atmosphere in your living or working environment, but also have a proven positive influence on work performance. In the Netherlands we are therefore proud to be the number 1 exporter worldwide when it comes to cut flowers. Although the flower sector has been hit hard by the Corona crisis, the future prospects are not unfavourable. Moreover, new research offers a refreshing look at the most optimal transport conditions for cut flowers. What developments can be seen in the cut flower market, and how do you ensure that your flowers reach their destination without loss of quality? You can read about it in this Whitepaper.

The Netherlands: the land of cut flowers

The Netherlands has a share of around 43% ([Rabobank](#)) in global cut flower exports. However, pressure on the market is increasing, due to emerging competition from abroad. Previously, most trade in flowers took place via auction, but tulip suppliers in particular are now more often able to get in touch with and deliver directly to retailers. Plant nurseries often organise themselves into branch organisations to increase collaborations.

Cut flower cultivation is mainly focused on export. Approximately 80% of the flowers grown in the Netherlands end up abroad. Important markets are European countries such as France, Germany and the United Kingdom, but also America and the Middle East.

Developments in the flower sector

The sale of flowers is highly dependent on economic developments. That is something we have noticed during the Corona crisis. During the first wave in week 12 to 25 of 2020, the revenue of cut flowers fell by no less than 24% ([Royal FloraHolland, 2020](#)). Plant nurseries were especially hit hard. Some nurseries lost around 30% of their revenue in the first half of 2020.

But the future of cut flower cultivation is not bleak. There are new opportunities in online sales and field bouquets are on the rise. In addition, there are also many marketing opportunities: scientific insights into the positive effects of flowers are still underused, and a better connection to lifestyle trends can trigger additional consumption.

Ensuring the quality of flowers

Ensuring the quality of cut flowers after harvesting is not a piece of cake. As soon as the stem is cut from the flower, the supply of nutrients to the flower stops. This triggers the natural decay of the flower. In order to keep the 'metabolism' of the flower in motion, it is important to cool the flowers immediately. For roses, cooling to a temperature of 1-2 degrees Celsius within the first day after



harvesting is recommended ([Wageningen Food & Biobased Research, 2017](#)). For other cut flowers this advice may differ slightly. Ideally, sorting and packaging should also take place in a cooled room.

In addition to creating the right ambient temperature, the right humidity is also important for maintaining the quality of your cut flowers. If the flowers are exposed to too much moisture, mould such as botrytis can occur. The flowers can also develop diseases.

If the space is too dry, you run the risk of your flowers drying out. The evaporation of water from the flowers and petals will continue even under cooled conditions. Until the cut flowers are distributed, you can store the flowers in suitable cold stores. The longer the flowers remain cooled, the more the decay of the flowers can be slowed down. However, transporting the flowers to destinations all over the world still presents a new challenge.

Flower transport: dry or in water?

In the Netherlands we still see a lot of flowers being transported in buckets of water. Dry transport of flowers, however, also has its advantages. Besides the fact that this is cheaper and more sustainable, it does not appear to be detrimental for the quality of the flowers. This is the conclusion of three-year research by Wageningen University (Wageningen Food & Biobased Research, 2017).

If flowers are transported by plane, for example to distant destinations such as America, the transport

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of flowers in buckets of water is not allowed. In these situations, dry transport is always the case. So why do we not transport our flowers dry in bulk? This has to do with the fact that on arrival, the flowers have to be put in water for a few hours to refurbish, so that they look good again for the consumer. This usually involves extra handling.

So, it is up to you to decide whether dry transport of cut flowers is a solution. Keep in mind that even during road transport the dry transport of cut flowers results in no less than 47% less greenhouse gas emissions compared to transportation with buckets of water (Wageningen Food & Biobased Research, 2017).





Transport your flowers dry

Cut flowers are usually transported in cardboard boxes with air holes for dry transport. In this way, the right degree of air humidity can be guaranteed. To keep the flowers dry, absorption materials such as absorption mats are often used. This enables you to prevent diseases or fungi such as botrytis.

The ideal transport temperature for cut flowers such as roses is around 2 degrees Celsius (Wageningen Food & Biobased Research, 2017). To guarantee this temperature during transport for up to 48 hours, you can, for example, use refrigerants such as gel packs. Regular gel packs offer you the opportunity to cool your goods at a temperature of 0-8 degrees Celsius while on the road.

Flower transporters generally opt for the [Original gel packs of 200 grams](#), because these offer the right cooling capacity for cut flowers. These are often used in combination with absorption mats, to immediately absorb any condensation that is created during transport. You can also choose No sweat gel packs. These are provided with a non-woven absorbent outer layer, which keeps your flowers dry during transport.





Custom transport solutions

It is not just the nursing, storing and trading of cut flowers that is a specialism. Transporting them is a specialism as well. Cut flowers require a unique approach. Various external factors determine the optimal transport conditions.

Coolpack offers customised solutions, so that your cut flowers arrive at their destination with good quality under all conceivable circumstances. What to think of gel packs in custom sizes or with your logo printed on them? Thanks to our own production facilities on location, we offer customised solutions that are specifically designed for your application.

Coolpack's products are of excellent quality and meet all the requirements of the law.

Do you have any questions, would you like to order or would you like advice? Feel free to [contact us](#) using the details below. Our experts will be happy to help you.

