CBI Product Factsheet:
Baby Vegetables in Germany
**Introduction**

Consumer demand for fresh vegetables, combined with trends related to convenience, consumer experience and innovation, has created a new segment for luxury fresh vegetables: baby vegetables. The German market offers opportunities for selling your baby carrots (as a snack), baby courgettes (used in Mediterranean cuisine) and baby corn (for Asian stir-fry dishes).

**Product description**

Baby vegetables (also known as miniature and mini vegetables) are smaller versions of regular-sized produce. Several baby vegetables are standard cultivars which are harvested at an immature stage (for example, baby corn), while others are a new variety of a vegetable species or the result of inter-breeding several species (for example, cherry tomatoes). Smaller vegetables produced from secondary buds after the initial full-sized crop has been harvested, can also be sold as baby vegetables (for example, baby broccoli) (University of Kentucky, 2013).

Baby vegetables are found in high-end restaurants, speciality retailers, farmers’ markets and food service/catering venues. They are especially attractive to consumers due to their unique sizes, shapes, colours and enhanced taste. What’s more, the number of single households is increasing in Europe; so many people require smaller portions of fresh produce.

In addition to providing information on the German market for baby vegetables in general, this factsheet focuses on three specific products:
- Baby carrots
- Baby courgettes
- Baby corn

**Baby carrots** are root vegetables approximately 10 to 12 cm long with a sweet taste and a crispy texture. They are mostly served with some of their greens attached. The carrot, which belongs to the parsley family, is native to Afghanistan. Baby carrots may be immature carrots (Daucus carota subsp. sativus), or a specific variety of this plant grown for its small size.

**Baby courgette**, also called baby marrow or baby zucchini, is a small version of the courgette (approximately finger size). The courgette, which is a member of the cucumber family, belongs to the plant species Cucurbita pepo. The fruit can be yellow or green and generally has a similar shape to a cucumber, although some are round or bottle-shaped. Courgettes with the flowers attached are a sign of a fresh, immature fruit, which are considered to have a better flavour than the mature fruit.

**Baby corn** is the immature ears of fully grown standard cultivars of either sweet corn or field corn. There is no difference in taste when comparing the sweet baby corn and field baby corn varieties, as the ears are harvested before the sugars have had an opportunity to accumulate. Small kernel size, straight row kernel alignment and tapered tips are typical characteristics of high-quality baby corn. Baby corn, which is available in white and yellow varieties, often has an ear size of 9 to 10 cm long and is approximately 1.5 cm wide.

Within the **harmonised System (HS)**, baby carrot, baby courgettes and baby corn do not have a specific HS code, but are, instead, covered by the following general HS codes:

<table>
<thead>
<tr>
<th>HS code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0706.1000</td>
<td>Fresh or chilled carrots and turnips</td>
</tr>
<tr>
<td>0709.9310</td>
<td>Fresh of chilled courgettes</td>
</tr>
<tr>
<td>0709.9960</td>
<td>Fresh or chilled sweetcorn</td>
</tr>
</tbody>
</table>
Product specifications

Quality

General requirements

The quality requirements for fresh produce to be marketed in the European Union, including Germany, are defined under the General Marketing Standards for Fruit & Vegetables according to Commission Implementing Regulation (EU) No. 543/2011. This General Marketing Standard (GMS), which applies to baby vegetables, covers the following:

1. Minimum quality requirements
   Subject to the permitted tolerances, the products must be:
   - intact
   - sound (products affected by rotting or deterioration which makes them unfit for consumption are excluded)
   - clean, practically free of any visible foreign matter
   - practically free from pests
   - practically free from damage caused by pests
   - free of abnormal external moisture
   - free of any strange smell and/or taste.

   The condition of the products – and their packaging – must be able to:
   - withstand transport and handling
   - arrive in satisfactory condition at the place of destination.

2. Minimum maturity requirements
   The products must be sufficiently developed, but not over-developed, and the fruit must be ripe, but not be overripe.
   The development and state of maturity of the products must enable them to continue ripening and reach a satisfactory degree of ripeness.

3. Tolerance
   A tolerance of 10% not satisfying the minimum quality requirements (by number or weight of product) must be permitted in each lot. Within this tolerance, not more than 2% in total may consist of produce affected by decay.

4. Marking the origin of produce (full name of the country of origin)
   For products originating in a Member State [of the European Union], this information must be in the language of the country of origin or any other language understandable by consumers in the country of destination. For other products, this must be in any language understandable by the consumers of the country of destination. If you package products for the German consumer market, you will need a label in German. However, if you work with suppliers of retailers, it is common for buyers to provide labels. For more information, please refer to the section on Labelling below.

Specific requirements for miniature (baby) produce

General guidelines for miniature produce (including baby vegetables) ensure compliance with are Commission Regulation (EC) No 1135/2001. This regulation is designed to ensure that some small, yet mature, vegetables covered by an existing marketing standard are not excluded from the market due to e.g. small size. Nonetheless, the Regulation only relates to aubergines, cauliflowers, cabbages and courgettes. Provisions in this regulation are set to ensure uniformity of size and suitable labelling of these products, as well as to distinguish them from regular-sized produce. This requirement amends the provisions on sizing, presentation and labelling that are laid down in Regulation (EC) No 659/97, adapting them specifically to miniature fresh vegetables.

Product-specific requirements

In addition to the general quality requirements for fresh (miniature) produce, specific product-specific requirements for the selected baby corn, baby carrot and baby marrow / courgette apply.

Fresh fruits and vegetables without a specific marketing standard should follow the UNECE Standards for Fresh Fruit and Vegetables guidelines. Among the selected products, some specifications for baby / miniature vegetables are available for courgettes only, under the requirements for regular-sized produce. These are essentially the same requirements defined under Commission Regulation (EC) No 1135/2001 described above.

V. Provisions concerning presentation
   (Item A. Uniformity):
• Miniature courgettes and courgettes with flowers must be reasonably uniform in size. Miniature courgettes may be mixed with other miniature products of a different type and origin.

VI. Provisions concerning marketing

(Item C. Origin of produce):
• In the case of a mixture of miniature produce of different species of different origins, the indication of each country of origin must appear next to the name of the species concerned.

(Item D. Commercial specifications):
• Mini courgettes, baby courgettes, or equivalent for miniature produce.

Given the lack of product-specific guidelines, the quality standards for specific baby vegetables that are used in the industry are based on alternative sources. These product-specific standards are an addition to the GMS. One of these alternative sources is the Codex Alimentarius, which was established by the Food and Agriculture Organisation of the United Nations and the World Health Organisation. Among the baby vegetables discussed in this document, the only one containing specific Codex Alimentarius standards is baby corn (CODEX STAN 188-1993, which is available on the List of Standards).

If no organisational quality reference is available at the international level, as in the case of baby carrot and baby marrow / courgette, each retailer defines his or her own standards, usually in close cooperation with the supplier. In such cases, reference can be made to standards available locally, as in the case of the Agricultural Product Standards Act No. 119 of 1990 of South Africa, which defines the regulations relating to the grading, packing and marking of fresh vegetables intended for sale. An important principle in developing and applying standards at the retailers’ level is consistency. For German retailers following GLOBALG.A.P. is also important. Please refer to Additional buyer requirements for more information.

Labelling

General requirements

The labelling requirements for baby vegetables in Germany also follow the GMS as described above (see Product Specifications).

All fresh vegetables subject to European Union’s marketing standards must be labelled with:
• the nature of the produce
• the country of origin
• the standard/class
• the variety (if included in the standard).

If the produce is sold pre-packaged, the following additional information must be stated on the product label:
• the name and address of the packer
• the weight or number of items in the package
• the lot number
• the average size (if required by the standard).

If the product is sold in retail packaging, all of the information above must be in German. In addition, any certification logo, or retailer logo in the case of private label products, should be displayed on the label.

Organic: In order for fresh baby vegetables to be marketed as certified organic in Germany – and generally in the European Union – they must be labelled with the European Union’s organic logo, along with other information (e.g. the registration number of the certification body). In order to include the organic logo, the product must comply with the European Union regulation for organic farming & marketing. Read more about the EU organic logo here. The regulation is explained more extensively in the section of this document under “What are the niche requirements?”. In addition to the European Union logo, Germany has its own organic logo, the Biosiegel. This is less commonly used than the European organic logo, but may be required by some retailers. Discuss these options with your buyers.

Specific requirements for miniature (baby) produce

In addition to general requirements, the following labelling requirements apply specifically to baby vegetables:

The expression "mini corns / carrots / courgettes" or "baby corn / carrots / courgettes" (or another appropriate term for miniature produce) should be placed on the product’s label. If several types of miniature produce are mixed in the same package, all products must be listed.
Packaging and transport

Baby vegetables are often harvested when they are immature, so they are more perishable than traditional vegetables harvested at physiological maturity (University of Kentucky, 2013). Packaging requirements are also stricter compared to traditional produce, in order to maintain the integrity of the produce. Note that baby vegetables must be harvested, packaged and shipped within a few hours to maximise freshness and quality.

Most baby vegetables should be kept at a relative humidity of 90-95% during transport and storage. In terms of temperatures, optimal conditions vary widely (baby corn: 4 to 8°C; baby carrots: 0 to 2°C; baby marrows / courgettes: approx. 13°C).

Bulk packaging

Most baby vegetables are shipped in waxed fibreboard boxes, which can withstand moisture from outside as well as inside, with holes for ventilation. Products are normally arranged in the boxes as follows:

- bunched baby carrots: 24 count
- baby corn: 48 count
- baby marrows / courgettes: 4.5 kg (10 lb).

Retail packaging

Common retail packaging for baby vegetables in supermarkets includes flow pack, tray and plastic wrapper, and plastic punnets ranging between 125 and 300 grams, but other weights are available – depending on the retailer.

What is the demand for baby vegetables in Germany and which trends offer opportunities for baby vegetables on the German market?

As luxury convenience products, baby vegetables represent a niche segment in the German fresh vegetables market. Specific data for the demand for these products are limited or unavailable. This is why in this section we discuss developments and trends to provide a picture of the growing popularity of baby vegetables in Germany.

In Germany, there is increased consumption of fresh food in general and fresh fruits and vegetables in particular (Euromonitor, 2015). Every second household in Germany consumes fresh vegetables on a daily basis (Gemüse Online). This trend is driven by a growing interest in healthier lifestyles. Moreover, German consumers increasingly value quality and freshness of food products rather than price (GfK, 2013). In this fresh vegetables market, companies use innovations to differentiate their products on the market and respond to growing consumer demand for consumption of fresh vegetables (Fruit Logistica). This demand, combined with trends for convenience, consumer experience and innovation, has led to a new segment for luxury fresh vegetables: baby vegetables.

These mini vegetables are highly successful among consumers, for their taste, presentation and decorative qualities and the fact that they make a healthy snack (Zu Hause).

Tips:

- Make sure you supply immature vegetables that can ripen before they reach the consumer. Poor-quality and immature vegetables will reduce consumption and damage your reputation, especially in the market for baby vegetables, where quality and taste are key criteria.
- Organise your logistic and seasonal planning to ensure good quality and taste of your products.

Food safety is one of the main concerns related to fresh produce, particularly regarding contamination. Pesticide residues are among the most common forms of contamination and one of the main concerns in food safety for consumers (Eurobarometer Food-Related Risks). As of yet, few cases have been reported of contamination issues in baby vegetables on the European market, as these products are still quite new (see example below).

In addition to contamination issues, consumers are, mistakenly, concerned that baby vegetables may be genetically modified. Most German consumers disapprove of genetically modified food products and ingredients (Library of Congress).
Convenience is one of the main drivers for sales of baby vegetables. **Convenience** in eating is an important trend in Germany, as consumers wanting to cook at home are often pressed for time. Convenience products include frozen as well as chilled ready meals and on-the-go breakfasts ([Frozen Food Europe, Mintel](#)). However, the increased importance of healthy living is changing the demand for convenience food ([Agriculture and Agri-Food Canada, 2012](#)). Focus is shifting to fresh food products and ingredients, while maintaining convenience. Both of these criteria are met by baby vegetables. Moreover, an increase in the number of single households in Germany is leading to growing demand for smaller quantities of fresh vegetables.

**Tip:** Inform your buyers about how your baby vegetables fit into the convenience trend. Do they have a shorter cooking time or can they be consumed raw, or perhaps as a snack?

German and other Western European consumers are increasingly adventurous in their cooking. Online recipe sites are expanding vastly (see e.g. sites such as [Chefkoch.de](#), [Lecker.de](#) and [Kochen-Und-Geniessen.lecker.de](#)). German companies such as [Hello Fresh](#) and [Marley Spoon](#) have responded to this trend by delivering fresh ingredients, including recipes, to consumers’ doorsteps. Sales of these companies are growing rapidly ([LMK, 2015](#)). These companies base their recipes on fresh ingredients.

**Tip:** Demonstrate how your baby vegetables can be used in different new and exciting recipes.

### Product-specific trends and demand

**Carrots** are one of the most popular vegetables in Germany, only topped by potatoes and tomatoes. In 2012, consumption of carrots amounted to 8.9 kg per capita ([Euromonitor, 2014](#)). Moreover, carrot consumption is rising steadily; from 2007 to 2012 consumption grew by 1.3% per year. Although baby carrots represent only a small proportion of this consumption, the data show that there is strong potential for baby carrots on the German market.
Baby carrots fit well into several trends on the German market, most importantly the interest in convenience and healthy living. As baby carrots do not need to be cooked before consumption, they have great potential as a healthy snack, which can be consumed on-the-go and is additionally well accepted by children (Freshplaza, 2015). These snacks make it easier for consumers to eat more vegetables throughout the day (Samstag).

Moreover, as a new product, baby carrots have led to a consumption trigger (Freshplaza, 2014). There is even potential for coloured baby carrots, which are increasingly seen in their normal-sized varieties (Freshplaza, 2015).

The main consumption of baby corn in Germany is in two forms: pickled, for example as a side dish in Raclette, and fresh, mostly in Asian stir-fry dishes. In the latter, preserved baby corn is used as well. Asian cuisine is increasingly popular among German consumers, as this style of food is considered light and easy to digest (Lieferheld). This cuisine fits in with general health trends in Europe.

Traditionally, courgette has been most popular in Southern European countries. However, over the last decade, consumption of the vegetable has been increasing in Germany (Frutas & Hortalizas). This growth in consumption is probably also driven by the increasing popularity of Mediterranean and Italian cuisines in Italy, as well as their ingredients.

Baby courgettes have a very short cooking time, which indicates that they match for convenience in home cooking in Germany.

Tip:
- Inform your buyers about the best ways to cook baby vegetables, especially courgette and corn.

Production

Baby vegetables can be produced in a wide range of countries. Baby carrots and courgette are also produced in Europe. The normal-sized versions of these vegetables can be grown in Europe all year round. European production of corn is limited to the summer months. Generally, the production of these baby vegetables is labour-intensive (Mini Gemuese). However, as baby vegetables are luxury products, consumers are more willing to pay a higher price for them.

Baby vegetables include:
- Baby carrots that are produced in Germany, particularly in the Pfalz (Freshplaza, 2014). The consumption levels of baby carrots are highest during the main harvest period from June to August, although they are available throughout the year. Moreover, baby carrots are produced in Southern Europe and Africa (e.g. South Africa).
- Baby corn, which is commonly produced in Asia (e.g. Thailand and India) and Africa (e.g. Kenya).
- Baby courgettes, which are produced in (Southern) Europe, are also imported from Africa (e.g. from South Africa and Kenya).

Tip:
- Determine your potential to produce baby vegetables in Europe's off-season.

What legal requirements must my product comply with?

Marketing standards in the European Union

The quality requirements for fresh produce in general, and baby vegetables and individual products in particular, are described under the 'Product specifications> Quality: General requirements / Specific requirements for miniature (baby) produce / Product-specific requirements sections of this document.

Food safety: Traceability, hygiene and control

Food safety is a key issue in EU food legislation. All food products in the European Union, including fresh (baby) vegetables, must comply with the General Food Law (Regulation (EC) 178/2002), laying down the general principles and requirements of food legislation, establishing the European Food Safety Authority and laying down procedures in matters of food safety. It also includes provisions on the traceability of food; the ability to track food products through the stages of production. For exporters to the EU, your buyers (at least) expect you to know and document your buyers and suppliers and which products are used during production, and to label final products for traceability if there is a food safety problem.
Control of food imported to the EU

In the event of repeated non-compliance with specific products originating from particular countries, such products can only be imported under stricter conditions such as having to be accompanied with a health certificate and analytical test report. Products from countries that have shown repeated non-compliance are put on a list included in the Annex of Regulation (EC) 669/2009. Regarding fresh produce, take a look at relevant cases to find out for what specific non-compliance hazards products from your country are checked extra strictly. For example:

- **Peppers** (other than sweet [Capsicum ssp.]) [CN code: ex07096099]. Origin: Thailand. Hazard: Pesticide residues analysed with multi-residue methods based on GC-MS and LC-MS or with single-residue methods. Frequency of physical and identity checks: 10%.

Tips:

- Read more about sanitary and phytosanitary requirements at the EU Export Helpdesk and pay special attention to the following documents from the European Commission:
  - Import requirements and the new rules on food hygiene and official food controls
- Check if there are any increased levels of controls for your product and country. The list is updated regularly. Check the Regulation periodically for the most recent list.

Plant health

Fruit and vegetables exported to European Union must comply with legislation on plant health. The EU has laid down phytosanitary requirements to prevent the introduction and spread of organisms that may be harmful to plants and plant products in the EU. These requirements include:

- Certain listed organisms are not allowed to be imported into the EU, unless specific circumstances apply.
- Plants or plant products specified in Part B of Annex V of Directive 2000/29/EC must be accompanied by a plant health certificate. The baby vegetables covered in this study are not listed here and do not require a certificate. However, if you also supply other (baby) vegetables, you need to check the Annex for these products. Make sure you search by using the **Botanical name** of your product.

Tips:

- Check with the relevant Plant Protection Organisation (NPPO) in Germany or with your importer what requirements apply to your product.
- If a phytosanitary certificate is needed to be allowed entry into Germany / the EU, refer to the model phytosanitary certificate on Annex VII (p.170) of Directive 2000/29/EC and/or ask your importer for assistance.
- Read more about plant health on the website of the European Commission: Plant Health.
- The European Union’s legislation on Plant Health has been subjected to recent modifications. The final decision on such changes, which affect issues such as impact assessment, stakeholder consultations and evaluation will take several years, but the website of European Commission: Plant Health: New EU Plant Rules contains useful information which will help you plan ahead.

Maximum Residue Levels (MRLs)

The European Union has set MRLs for pesticides in and on food products, which are particularly relevant. Products containing more pesticides than allowed will be simply withdrawn from the EU market.

Note that buyers in several EU Member States use MRLs which are stricter than the MRLs laid down in EU legislation. In particular this is the case in Germany which, alongside the United Kingdom, applies the strictest MRLs at the retail level in Europe. As a general rule, German retailers apply an MRL rule which is three times stricter than EU legislation – but some German retail chains can set the MRL limit even higher.
Contamination sources and maximum levels

Contaminants are substances that may be present as a result of the various stages of pre-harvest, harvest or post-harvest (incl. packaging) of baby vegetables. One of the most common problems faced by exporters of baby vegetables and other fresh produce is contamination derived from external sources. For this reason, it is crucial for exporters to learn about and comply with the maximum contamination levels allowed by European legislation. The different sources of contamination in baby vegetables, and the respective legislation addressing them, are:

- **Nitrate**: vegetables, particularly green leaf vegetables, are the major source of nitrate for humans. Maximum nitrate levels allowed in the EU range between 2,000 and 7,000 mg NO3/kg (see section 1 of Annex of Regulation (EC) No 1881/2006).
- **Heavy metals** (see section 3 of Annex of Regulation (EC) No 1881/2006):
  - The maximum limit of lead allowed for fresh vegetables, including baby vegetables, is 0.10 mg/kg wet weight.
  - The maximum limit of cadmium allowed for vegetables and fruit, including baby vegetables, is 0.050 mg/kg wet weight. The limit for stem vegetables, root and tuber vegetables is 0.10 mg/kg wet weight.
- **Microbiological**: In the current EU legislation (Commission Regulation (EC) No 2073/2005), microbiological criteria have been set specifically for fresh vegetables:
  - Pre-cut vegetables (ready-to-eat): *E. coli* – Limit value m of 100 cfu/g; limit value M of 1,000 cfu/g (Analytical reference method: ISO 16649-1 or 2).
  - In other cases, where no specific legislation for microbiological contamination is available, food safety authorities can withdraw imported food products from the market or prevent them from entering the European Union if *Salmonella, E. coli* or other microbes are found.
- **Foreign matter**: Contamination by foreign matter such as excessive dirt, soil or other materials that are a threat to the quality of fresh (baby) vegetables.

General requirements on packaging and liability

Note that there is also specific non-product legislation on packaging and liability that applies to all goods marketed in the European Union.

Full overview of requirements for fresh vegetables, including baby vegetables:

For a list of requirements, please consult the EU Export Helpdesk where you can select your specific product code under Chapter 07 (Edible vegetables and certain tubers); you can select your respective origin and export destination (e.g. Germany).

What additional requirements do buyers often have?

GLOBALG.A.P., QS and other quality management standards

The most commonly requested food safety certification scheme, which is essential for exporting fresh (baby vegetables) to the European Union, and Germany in particular, is GLOBALG.A.P.. Even though GLOBALG.A.P. is not a legislative requirement per se, it is requested by practically all retailers in the European Union.

GLOBALG.A.P. is a pre-farm-gate standard which covers the whole agricultural production process from farm inputs such as seedlings, until the product leaves the farm, i.e. only primary in-field processing is covered. In order to cover further steps in the value chain, GLOBALG.A.P. is often supplemented by quality management systems which relate to post-harvest handling, packaging and other processes.

Implementing a quality management system according to HACCP is a minimum requirement for handling and processing steps in the value chain. This system is thus additional to GLOBALG.A.P., which only covers processing steps until products leave the farm. HACCP is specified in both the Codex Alimentarius standard on General principles of Food Hygiene and...
mentioned under General Food Law Regulation (EC) 178/2002. Social practices are increasingly part of the agenda of German retailers and their audit processes. This is why German retailers will probably ask for additional Quality Management System certificates such as International Featured Standards (IFS): Food, which is a quality and safety standard published by the union of German supermarket chains, HDE (Hauptverband des Deutschen Einzelhandels).

An alternative requirement often used by German retailers is the GLOBALG.A.P.-equivalent standard QS. Whereas QS is equivalent to GLOBALG.A.P. at the farm level (QS-GAP), it also covers further food safety steps along the value chain, from the farm gate to wholesalers and retailers. QS is a 3-tier system which involves every stakeholder in the value chain. A combined certification for both QS and GLOBALG.A.P at the same time is possible at the producer level. Apart from QS you will also need a specific HACCP based system for quality management, such as IFS.

**Tips:**
- Refer to the European Commission’s document on the Implementation of procedures based on the HACCP principles.
- If you plan to target one or more markets, check which specific food safety management systems are most commonly requested. In any case choose a management system that is GFSI approved.
- Read more on the different Food Safety Management Systems at the Standards Map.

**GRASP, a GLOBALG.A.P. / QS(GAP) add-on**

GRASP stands for GLOBALG.A.P. Risk Assessment on Social Practice, and is a voluntary ready-to-use module developed to assess social practices on the farm, addressing specific aspects of workers’ health, safety and welfare. Operators certified against GLOBALG.A.P. and/or QS(GAP) can get certified according to this additional module in order to substantiate their social practices at the farm level. This module is increasingly important to retailers in Germany, as it addresses social risks intrinsic to the value chain of fresh products and can strengthen their Corporate Social Responsibility (CSR) policies.

**Tip:**
- Have a look at the quality management systems mentioned above, in addition to compulsory HACCP systems. Third-party certification of such systems can strengthen your competitiveness. Discuss these options with your buyer.

**Packaging and Waste Avoidance**


The Green Dot (Der Grüne Punkt) system was developed to assure that product information materials will be recycled in a controlled facility. The Green Dot symbol is found on the packaging material of virtually all retail products in Germany.

The use of the Green Dot is not a legal requirement for all products but, in practice, it will be very difficult to market a (pre-packaged) product in Germany without it. Typically, the producer or the importer pays a fee and enters into a licensing agreement with Der Grüne Punkt - Duales System Deutschland, and provides the licensing company necessary product information in order to use the Green Dot (GAIN REPORT, 2015).

**Tip:**
- Read more about the Green Dot in Germany and the EU legislation on packaging and packaging waste.

**What are the requirements for niche markets?**

**Organic**

Germany is the biggest European market for organic food. From 2013 to 2014, this market grew by 4.8%, reaching a value of €7.9 billion, which represents 3.8-4.0% of the total food market (AMI, 2015). As baby vegetables are already a niche, luxury product, demand for organic certified baby vegetables is deemed weaker than for other vegetables. It can be more interesting for baby carrots, or preserved baby corn, to distinguish your products from what is available on the market.
Organic certification is a non-legislative requirement for fresh (baby) vegetables but in order for a company to market their product as 'organic' in Germany and in the European market, it must comply with EU Regulation (Council Regulation (EC) No 834/2007 and Commission Regulation (EC) No 889/2008 (OJ L-250 18/09/2008) for organic production and labelling – which is in itself a legal requirement. Organic products must be grown using organic production methods, which are laid down in legislation – and growing and processing facilities must be audited by an accredited certifier, before you may put the EU and the German organic logo on your products.

One of the factors exporters must pay special attention to is whether their organic certification is de facto recognised by the EU legislation. This is why producers/exporters should search for a certifier whose standards are recognised by the EU. The European Commission’s Agriculture and Rural Development website provides a thorough explanation of import regulations and other related issues.


**Tips:**
- Investigate the possibilities for organic certification, including the opportunities and costs involved in the process. Always discuss these options with your buyers.
- For information on organic certification in Europe, visit the website of Organic Farming in the European Union, which also contains guidelines concerning imports of organic products. Also consult the International Federation of Organic Agriculture Movements (IFOAM) website for information on certification standards.
- Check the Biosiegel website to acquaint yourself with Germany’s national organic label.

**Fair Trade**

Fairtrade International is the leading standard-setting and certification organisation for Fairtrade. In 2014, sales of German Fairtrade products amounted to €850 billion, an increase of 27% since 2013 (Fairtrade FLO). In general, vegetables make up a small part of Fairtrade certified products. This is why potential for Fairtrade certified baby vegetables is deemed limited in Germany.

Products which carry the Fairtrade label indicate that producers are paid a Fairtrade Minimum Price. Regarding baby vegetables, Fairtrade International only has a minimum price structure for baby corn; minimum prices are distinguished per region (Northern Africa, Latin America and the Caribbean or worldwide) and conventional / organic.

Other Fairtrade standards available in the European market are Fair Trade Ecocert and IMO’s Fair for Life. Fair Trade Ecocert provides for guaranteed minimum prices, producer support and good agricultural practices; this standard requires an organic certification. IMO’s Fair for Life, which has a similar proposition, is a standard for companies which ensure decent working conditions and commit to fair sourcing and responsibilities in relation to their primary producers. Organic certification is not compulsory for Fair for Life holders.

**Tips:**
- Before engaging in a Fairtrade certification programme, make sure you check (in consultation with your potential buyer) that this label has sufficient demand in your target market and whether it will be cost beneficial for your product.
- Consult the Standards Map database for more information on Fairtrade and other voluntary standards relevant for fresh baby vegetables.
**What competition do I face on the German market for baby vegetables?**

**Market entry**

Requirements to enter the fresh produce market in Germany are (increasingly) strict, which complicates market entry.

**Tips:**
- Comply with market access requirements on food safety, quality and traceability.
- If you want to comply with specific certifications, discuss these options with your buyers.
- For more information on German and European buyer requirements, including those on contamination and certifications, refer to the [Buyer Requirements](#) section of this factsheet.

**Product competition**

Product competition depends on the threat of substitution with other products. As baby vegetables fall in the high-end, convenience market segment, this threat depends less on price (compared to other fresh vegetables). German consumers are willing to pay a higher price for these vegetables than their normal-sized versions (see [Market Segments](#)).

Rather, the threat of substitution depends on the use of baby vegetables and is weaker than for other fresh convenience products. Particularly, these cover fresh ready-to-eat or cook vegetables or fruits, such as pre-cut varieties. Threats of substitution with products outside of the fruit and vegetable market are limited. The growing market for ‘pre-cut fruit’ and ‘snack vegetables’ is, in turn, a substitute for ‘unhealthy snacks’.

As **baby carrots** are marketed as snack vegetables, they compete directly with other vegetables and fruits that serve the same purpose. Products include pre-cut vegetables (e.g. carrots), other baby vegetables (e.g. cherry tomatoes or snack cucumbers) and even pre-cut fruits (e.g. ready-to-eat pomegranate or fruit salads).

For **baby courgette and corn** substitution is strongest from other baby vegetables, or different exotic or peculiar high-end fresh vegetables, particularly if they are ready to cook. Examples include baby fennel, Asian vegetables such as pak choi, or ready-to-cook vegetable packages. For baby corn in particular, preserved baby corn is a substitute product as well. However, often consumers will buy these baby vegetables to use in a specific dish, which limits the threat of substitution.

**Company competition**

Your **competitive advantage** on the baby vegetables market also depends on where your competitors are located, the sales channel and market segment. Demand for these products is growing in Germany and in other European countries, but supply is still low. Specialising in the supply of baby vegetables may fill a growing gap in the EU market. Not only are these products sold for a far higher value at retail in the more developed European countries, there are also significant opportunities for adding value through pre-preparing, bundling (having more than one variety in one packet) and packaging.

Baby vegetables are a differentiated product on the German market; competition for suppliers of these products is weaker than for many commodity products, such as normal-sized carrots or tomatoes.

**Tips:**
- To fill gaps in supply on the German and European markets for baby vegetables, you need to ensure the freshness and quality of your products. Employ good post-harvest processes: store your products in clean containers in a clean warehouse, ensure hygienic grading and sorting conditions and apply strict sorting and grading standards. Store baby vegetables at the right temperature. Refer to [transportation requirements](#) and the [Buyer Requirements](#) for more info. You also need logistic and planning skills to ensure that your products arrive fresh in Germany.
- Focus your exports of fresh baby vegetables to Germany in European’s off-season, especially in December when demand for baby vegetables is highest.

In general, German retailers, particularly supermarkets, have a strong position in the **supply chain**. As a result, they have very strict requirements and conditions for products. Moreover, competition between supermarkets is mainly on price, which makes price an issue for importers/wholesalers who supply these retailers as well. They will put some pressure on you as a supplier to meet competitive prices, although this will be less than for suppliers of normal-sized fresh vegetables.
What are the market channels and interesting market segments for baby vegetables in Germany?

**Market channels**

**Production and exports**

Baby vegetables are grown for export by large-scale farming, small-scale, traditional farming as well as small to medium-scale contract farming enterprises. The vegetables are usually harvested before the product has fully grown. Producers can grow vegetables solely for their immature produce or can grow vegetable as a dual-purpose crop that yields both immature and fully mature vegetables, or finally as a specialty crop which grows to mature small-sized vegetables (for example, some sorts of baby carrots).

Growers of baby vegetables deliver their produce to exporters, which usually carry out post-harvest treatments such as sorting, grading, cleaning or washing, and packaging and labelling. The post-harvest steps carried out at the producing country will depend on the requirements of the customers further down the supply chain. Usually, sorting and cleaning is done in the country of origin, as well as packaging in wholesale containers (boxes or crates). Baby vegetables are commonly transported by air freight (from Africa, Latin America and Asia) because they are more perishable than normal-sized vegetables.

Exporting companies then sell the produce to the export markets via import agents or directly to wholesalers or supermarkets (Monaren, 2013).

**Imports and distribution**

The most interesting trade channels for exporters of baby vegetables are importers. They purchase produce from various producing countries and resell to domestic retailers, or re-export to other countries. The Netherlands is an important entry point for baby vegetables coming into Europe. Dutch importers/wholesalers also provide baby vegetables to the German import market. A supermarket chain may use the following entry points:

- Air Cargo
- Truck Transport
- Rail Transport

**Tips:**

- Try to develop long-term partnerships with European buyers, for example in a long-term buying programme with a European retailer. Make sure that your company is ready for that commitment.
- Make sure that you are a reliable and accessible partner. Adhere to your agreements and make sure you are easy to contact.
- Always be available for communication. Be open and honest in your communications and promptly answer questions and requests from your (potential) buyers.
- Make sure that you can trace your baby vegetables back to the farm that produced them and communicate this with your buyers. Increasing transparency builds trust with buyers.
- Contact an experienced importer/distributor before you enter the German market for more information on requirements and expectations from supermarkets. Be aware that delivering to supermarkets is very demanding in terms of buyer requirements and price.
market. Some importers/wholesalers use agents to facilitate transactions. The **wholesale / distribution activities** might be integrated into the importer’s service portfolio or outsourced to a separate company.

**Importers of baby vegetables** usually specialise in fresh produce such as fruits and vegetables or are more specialised importers. Examples include Bud Holland and Nature’s Pride in the Netherlands, which specialise in exotic fruits and vegetables, also supplying to the German market, as well as German importers, e.g. Sandner Fruechte. Importers take care of necessary administrative formalities and often provide services such as (re-) packaging (e.g. in retail-sized packaging), transportation and logistics to then sell the produce to the retail market. These specialist wholesalers increasingly by-pass traditional importers as they handle direct import and distribution of produce (Monaren, 2013).

**Other increasingly important actors are wholesalers**, such as FrischeParadies, which traditionally solely supplied to catering companies, restaurants and hotels but are increasingly supplying end consumers as well.

### Market segments

Generally, baby vegetables are situated at the higher end of the market segment; the prices of baby vegetables compared to mature vegetables can be up to four times as high. The prices of, for example, baby carrots are two to three times those of their conventional counterparts (GfK Consumer Panel, 2013). This is why it is estimated that around one third of baby vegetable sales in Germany takes place during December, because consumers are willing to pay more for produce during holiday periods (Prince de Bretagne, 2011) Nevertheless, German consumers are in general increasingly focusing on convenience, quality and freshness rather than the price of produce.

Baby vegetables reach two main channels in Germany:

- **Retail**, sub-divided into:
  - supermarkets
  - specialised shops
- **Food service / catering**, sub-divided into mainly:
  - Restaurants
  - Hotels

### Retail

As luxury products, baby vegetables are mostly sold through speciality retailers and farmers’ markets. There are comparatively few baby vegetables in supermarkets as yet, but the volume is increasing. In general, around 90% of fresh vegetables are sold through supermarkets, discounters and specialised vegetable shops, with the supermarket chains Edeka, Rewe, Aldi, Lidl and Kaufland covering around 85% of the food market (CIR, 2014). The availability of baby vegetables in these retail shops is to a large extent influenced by increasing demand for convenience snacks, and this is why vegetables that can be consumed raw, such as carrots (but also tomatoes and cucumber), are now widely available in supermarkets. Baby vegetables, such as baby courgette and baby corn, are sold to a lesser extent in supermarkets, but are increasingly available especially during festive days or during special seasonal offers (FreshPlaze, 2015). Baby corn is usually available in preserved form, in cans and jars.

Moreover, special retailers/wholesalers (for example FrischeParadies), which traditionally supplied baby vegetables to the food service sector, are increasingly available.

### Food service

The food services sector is an important market segment for baby vegetables. In this sector, baby vegetables are used for their taste, as flavouring is more concentrated than in conventional vegetables (Fruchthof Northeim). Also within this market segment, baby vegetables are mostly used for high-end food service due to their high prices.

### What are end market prices for baby vegetables?

**Table 1: Indicative end-market prices for baby vegetables in Germany, in € per 100 gram**

<table>
<thead>
<tr>
<th>Baby carrots</th>
<th>€0.40 – 2.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby corn</td>
<td>€1.65 – 2.00</td>
</tr>
<tr>
<td>Baby courgette</td>
<td>around €1.00</td>
</tr>
</tbody>
</table>

*Source: Supermarktcheck.de, Frischeparadies, Sandner-Fruechte, petit Rungis*

The table above gives an indication of prices of baby vegetables. Baby carrots are widely available, as these vegetables have been on the market for longer and are even sold at several discounter shops. The availability of preserved baby corn
(jars) in supermarkets is also relatively good, although the availability of fresh baby corn is limited. Prices for preserved baby corn vary from €0.20 to €1.20 per 100 grams.

**Useful sources**

**Press and associations**

- European Fresh Produce Association (Freshfel) – http://www.freshfel.org
- Fresh Plaza - http://www.freshplaza.com - news and information portal covering fresh produce
- Fresh Info - http://www.freshinfo.com - weekly journal for the fresh fruit and vegetables business which includes industry news and market data
- German Retail Federation (HDE) - http://www.einzelhandel.de
- German Fresh Fruit and Vegetable Association (DFHV): www.dfhv.de

German/European importers and wholesalers include:

- Best Fresh Group – www.bestfreshgroup.com
- Wealmoor – www.wealmoor.co.uk
- Herbafrucht GmbH – www.herbafrucht.de
- HPW AG – www.hppag.ch
- Frische Paradies – www.frischeparadies-shop.de
- Sandner Früchte Online – www.sandner-fruechte.de
- Petit Rungis express GmbH – www.petitrungis.com

**Relevant trade fairs**

Visiting or even participating in trade fairs is highly recommended as one of the most efficient methods of testing market response, obtaining market information and finding prospective business partners. The most relevant trade fairs for exporters of baby vegetables are:

- BioFach, Nuremberg, Germany - https://www.biofach.de/en
- Fruit Logistica, Germany - http://www.fruitlogistica.de/en/

**More information**

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