

Practical market insights for your product

Baby Vegetables in Germany

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

PRODUCT DESCRIPTION

Baby (also known as miniature and mini) vegetables are smaller versions of their respective regular-sized produce. Several baby vegetables are standard cultivars which are harvested at an immature stage (for example, baby corns), while others are a new variety of a vegetable species or an inter-breed of 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 available through 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 concentrated taste. Additionally, more and more single households exist in Europe, thus requiring fresh produce but in smaller portions.

Next to providing information on the German market for baby vegetables in general, this factsheet focuses on 3 specific products:

1. Baby carrots
2. Baby courgettes
3. Baby corns

Baby carrots are root vegetables of about 10 to 12 cm long, having a sweet taste and a crispy texture. They are mostly served with some of their greens. The baby carrot belongs to the parsley family and is native to Afghanistan. They are either the immature roots of the carrot plant (*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 is a family member of the cucumber and is a fruit from the plant species *Cucurbita pepo*. The fruit can be yellow or green and generally has a similar shape to a cucumber, though some are round or bottle-shaped. Courgettes with the flowers attached are a sign of a fresh and immature fruit, which are considered to contain more flavour than a mature fruit.

Baby corn is the immature ears of fully grown standard cultivars of either sweet corn or field corn. There is no taste difference in the sweet baby corn variety over field baby corn, since the ears are harvested before the sugars have an opportunity to accumulate. Small kernel size, straight row kernel alignment and tapered tips are typical characteristics for high quality baby corn.

Baby corn is available in white and yellow varieties and commonly have ear size of 9 to 10 cm long and approximately 1.5 cm in width.

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

HS CODES	DESCRIPTION
■ 0706.1000:	Fresh or chilled carrots and turnips
■ 0709.9310:	Fresh or chilled courgettes
■ 0709.9960:	Fresh or chilled sweetcorn

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) applies to baby vegetables. It covers the following:

1. Minimum quality requirements

Subject to the tolerances allowed, the products shall be:

- Intact,
- Sound; products affected by rotting or deterioration such as to make 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 affecting the flesh,
- Free of abnormal external moisture,
- Free of any foreign smell and/or taste.

The condition of the products must be such as to enable them:

- To withstand transport and handling,
- To arrive in satisfactory condition at the place of destination

2. Minimum maturity requirements

The products must be sufficiently developed, but not over-developed, and fruit must display satisfactory ripeness and must not be overripe.

The development and state of maturity of the products must be such as to enable them to continue their ripening process and to reach a satisfactory degree of ripeness.

3. Tolerance

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

4. Marking of origin of produce

Full name of the country of origin. For products originating in a Member State [of the European Union], this shall be in the language of the country of origin or any other language understandable by the consumers of the country of destination. For other products, this shall 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 that the buyer provides the 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) are given according to [Commission Regulation \(EC\) No 1135/2001](#). This regulation seeks to ensure that some small, yet mature, vegetables covered by an existing marketing standard are not excluded from the market due to reasons of small size. Nonetheless, the Regulation only concerns 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. It 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 guidelines of the [UNECE Standards for Fresh Fruit and Vegetables](#). 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 the flower 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 shall appear next to the name of the species concerned.

(Item D. Commercial specifications):

- Mini courgettes, baby courgettes, or equivalent denomination for miniature produce.

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

In case no organisational quality reference is available at the international level, as in the case of **baby carrot** and **baby marrow/courgette**, each retailer usually defines their own standards, usually in close cooperation with the supplier. In such cases, references can be made to standards available locally, as in the case of the [Agricultural Product Standards Act No. 119 of 1990 of South Africa](#), defining 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 the section on additional buyer requirements for more information.

LABELLING

General requirements

The labelling requirements for baby vegetables in Germany also follow the GMS as described above.

All fresh vegetables subject to European Union's marketing standards must be labelled with:

- Nature of produce
- Country of origin
- Standard/class
- Variety (if stated so in the standard)

If the produce is sold **pre-packaged**, the following additional information has to be stated on the product label:

- Name and address of packer
- Weight or number of items in the package
- Lot number
- Size (if stated so in the standard)

If the product is sold in retail packaging, all information above will have to 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 organic-certified in Germany and generally in the European Union, they must contain the European Union's organic logo, along with other information on the label (e.g. No. of the certification body). In order to include the organic logo, the product has to comply with the European Union regulation for organic farming & marketing. Read more about the EU organic logo [here](#). The regulation is explained more extensively on the section "What are the niche requirements?" of this document. In addition to the European Union logo, Germany has its own organic logo, the [Biosiegel](#). This logo is less commonly used than the European organic logo, but may be demanded by some retailers. Discuss these options with your buyers.

Specific requirements for miniature (baby) produce

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

The expression "mini corns/carrots/courgettes" or "baby corns/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 mentioned.

Packaging and transport

Baby vegetables are often harvested immature, thus they are more perishable than traditional vegetables harvested at physiological maturity ([University of Kentucky, 2013](#)). As such, packaging requirements are also stricter compared to traditional produce, so as to maintain the integrity of the produce. Note that baby vegetables have to be harvested, packaged and shipped within a few hours after readiness to ensure maximum 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 corns: 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. The selected products are normally arranged in the boxes as follows:

- bunched baby carrots: 24 count
- baby corns: 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 WHAT TRENDS OFFER OPPORTUNITIES FOR BABY VEGETABLES ON THE GERMAN MARKET?

As luxury convenience products, baby vegetables represent a niche market segment on the German fresh vegetables market. Specific data for the demand for these products are limited/unavailable. Therefore, this section discusses developments and trends to provide a picture of the growing popularity of baby vegetables in Germany.

In Germany, there is an 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 an increased need for healthier lifestyles. Moreover, German consumers increasingly value quality and freshness of food products over price ([GfK 2013](#)). In this fresh vegetables market, companies use innovations to differentiate their products on the market and respond to growing consumer need for consumption of fresh vegetables ([Fruit Logistica](#)). This demand for fresh vegetables, 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 a big hit among consumers, for their taste, presentable and decorative qualities and as a healthy snack ([Zu Hause](#)).

TIPS:

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

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

In addition to contamination issues, consumers are, mistakenly, concerned that baby vegetables are genetically modified. Most German consumers are against genetically modified food products and ingredients ([Library of Congress](#)).

FIGURE 6: RASFF PORTAL RESULT FOR FRESH BABY CARROTS

Notification details - 2014.0201				
prohibited substance dieldrin (0.31 mg/kg - ppm) in fresh baby carrots from Albania				
Reference:	2014.0201	Notification type:	food - information for attention - official control on the market	
Notification date:	11/02/2014	Action taken:	informing recipients	
Last update:	11/02/2014	Distribution status:	distribution restricted to notifying country	
Notification from:	Denmark (DK)	Product:	fresh baby carrots	
Classification:	information for attention	Product category:	fruits and vegetables	
Risk decision:	serious	Published in RASFF Consumers' Portal:	has been published before	
Hazards				
Substance / Hazard	Category	Analytical result	Units	Sampling date
prohibited substance dieldrin	pesticide residues	0.31	mg/kg - nom	13/01/2014

Source: [RASFF Portal](#)

TIPS:

- Make sure that your fresh baby vegetables comply with food safety legislation. Browse through border rejections and alerts for specific baby vegetables under the product category 'fruits and vegetables' after accessing the [RASFF Portal](#). In this manner, you can learn about common problems faced by suppliers during border controls and adopt appropriate measures to avoid them.
- Develop an Identity Preservation (IP) system for your products (i.e. maintaining their segregation and documenting their identity), focusing on their origin and on transparency along the chain.
- In your product materials, be specific on the species you use for your baby vegetables. Make sure that these are not genetically modified.

The interest in convenience is one of the main drivers for baby vegetables. **Convenience** in eating is an important trend in Germany, as consumers wanting to cook at home are pressed for time. Convenience products include frozen or chilled ready meals or on-the-go breakfasts ([Frozen Food Europe, Mintel](#)). However, the increased importance of healthy living is changing the demand for convenience and ready meals ([Agriculture and Agri-Food Canada, 2012](#)). Focus is shifting to fresh food products and ingredients while maintaining convenience, both qualities which are covered by baby vegetables. Moreover, the increase in the number of single households in Germany is leading to a growing demand for smaller quantities of fresh vegetables.

TIPS:

- Inform your buyers how your baby vegetables fit with the convenience trend. Do they have a shorter cooking time or can they be consumed raw, as a snack?

German and other West-European consumers are increasingly adventurous in their cooking. Online recipe sites are expanding vastly and includes 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.

TIPS:

- 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. Moreover, carrot consumption is rising steadily, from 2007 to 2012 consumption grew by 1.3% per year. Although baby carrots take up a small part of this consumption, it shows that there is a convenience and healthy living. Since baby carrots do not need to be cooked before consumption, they have great potential for 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 ([5amtag](#)).

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](#)).

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](#)). As such, the cuisine fits with the general health trend in Europe.

Traditionally, **courgette** has been most popular in South European countries. However, over the last decade, consumption of the vegetable is rising in Germany. This growth in consumption is likely also driven by the increasing popularity of Mediterranean and Italian cuisines, as well as their ingredients.

Baby courgettes have a very short cooking time, which indicates that they fit the German demand for convenience in home cooking.

TIPS:

- Inform your buyers on the cooking uses of baby vegetables, especially for 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 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, since baby vegetables are luxury products, consumers are more willing to pay a higher price for them. Baby vegetables are

- Baby carrots are produced in Germany, particularly in the Pfalz ([Freshplaza, 2014](#)). Consumption of baby carrots is strongest during the main harvest time 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 is commonly produced in Asia (e.g. Thailand and India) and Africa (e.g. Kenya).
- Baby courgettes are produced in (Southern) Europe and they are imported from Africa (e.g. South Africa and Kenya).

TIPS:

- 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 specifically, are described under the section on product specifications 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 (minimally) expect you to know and document your buyers and suppliers, which products are used during your production process and to label final products for traceability in case of a food safety problem.

Control of food imported to the EU

In the event of repeated non-compliance of 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, have a look at relevant cases to find out for what specific non-compliance hazards products from your country are checked extra strictly. For example:

- *Brassica oleracea* (other edible Brassica, 'Chinese Broccoli') [CN code: ex070490 90].
Origin: China. 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: 20%.
- Peppers (other than sweet [*Capsicum* ssp.]) [CN code: ex070960 99]. 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](#)
 - [Implementation of certain provisions of Regulation \(EC\) No 852/2004 of the European Parliament and of the Council on the hygiene of foodstuffs](#)
- 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 the legislation on plant health. The EU has laid down phytosanitary requirements to prevent introduction and spread of organisms harmful to plants and plant products in the EU. The requirements mainly imply that:

- Certain listed organisms are not allowed to be imported into the EU, unless specific circumstances apply.
- Plants or plant products specified in Part B, 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 to search by using the **Botanical name** of your product.

TIPS:

- Check with the relevant [Plant Protection Organisation \(NPPPO\) in Germany](#) or with your importer what the requirements are applying 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: Plan Health](#).
- The European Union's legislation on Plan 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: Plan Health: New EU Plant Rules](#) contains useful information which will help you plan ahead.

Maximum Residue Levels (MRLs)

The European Union has set maximum residue levels (MRLs) for pesticides in and on food products, which is especially relevant. Products containing more pesticides than allowed will be 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. This is especially 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 3 times stricter than the EU legislation – but some German retail chains can set the MRL limit even higher.

TIPS:

- To find out the MRLs that are relevant for your products, you can use the EU [MRL database](#) in which all harmonised MRLs can be found. You can search on your product or pesticide used and the database shows the list of the MRLs associated to your product or pesticide.
- Consult your Germany buyer on their specific MRL requirements and on their expectations for compliance. As mentioned above, company policies might limit the MRLs to 30%, 50%, 70% or even higher parameters in relation to the EU legislation.

Contamination sources and maximum levels

Contaminants are substances that may be present as a result of the various stages of preharvest, 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 and comply with the maximum contamination levels allowed by the 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 for the human intake of nitrate. Maximum nitrate levels allowed in the EU range according to different vegetables 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): **Salmonella** – Absence in 25 g (Analytical reference method: EN/ISO 6579).
 - 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 when *Salmonella*, *E. coli* or other microbes are found.
- **Foreign matter:** Contamination by foreign matter like excessive filth, soil or other materials is a threat for the quality of fresh (baby) vegetables.

General requirements on packaging and liability

Note that there is also non product specific legislation on [packaging](#) and [liability](#) that apply to all goods marketed in the European Union.

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

For a list of requirements 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, *essential* for exporting fresh (baby vegetables) to the European Union, and Germany specifically, 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 seedling, until the product leaves the farm, i.e. only primary in-field processing is covered. So as to cover further steps in the value chain, GLOBALG.A.P. is often supplemented by quality management systems which is related to post-harvest handling, packaging and other processes out of the farm.

Implementing a quality management system according to HACCP is a minimum requirement regarding 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. Therefore, German retailers will most 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. As such, 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](#)
- When you plan to target one or more markets, check which specific food safety management systems are most commonly requested. In any case choose for 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 so as to substantiate their social practices at the farm level. This module is increasingly important to retailers in Germany, since it addresses social risks intrinsic to the value chain of fresh products and can strengthen their Corporate Social Responsibility (CSR) policies.

TIPS:

- 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 Packaging and Waste Avoidance Law/*Green Dot*, the German Packaging and Waste Avoidance Law ([Verordnung über die Vermeidung und Verwertung von Verpackungsabfällen, or VerpackV](#)) establishes recyclability requirements for packaging material in the framework of the European Parliament and Council [Directive 94/62/EC](#) (and amendments), on packaging and packaging waste.

The *Green Dot* (Der Grüne Punkt) system was developed to assure that product 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](#)).

TIPS:

- 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 market of 7.9 billion euros, which represents 3.8-4.0% of the total food market ([AMI, 2015](#)). Since baby vegetables are already a niche, luxury product, demand for organic certified baby vegetables is deemed less strong 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 the [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 which exporters have to pay special attention to is whether their organic certification is *de facto* recognised by the EU legislation. Therefore, 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.

Commission Regulation (EC) No 1235/2008 of 8 December 2008 laying down detailed rules for implementation of Council Regulation (EC) No 834/2007 and its latest amendments, as regards the arrangements for imports of organic products from third countries, can be found on the [EUR-Lex website](#).

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 [Bio-Siegel](#) to become acquainted 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 euros, an increase of 27% since 2013 ([Fairtrade FLO](#)). In general, vegetables make up a small part of Fairtrade certified products. Therefore, 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 corns; minimum prices are distinguished per region (Northern Africa, Latin America and the Caribbean or worldwide) and conventional/organic.

Other fair trade 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 has a similar proposition, and is a standard for companies which demonstrate decent working conditions and commit to fair sourcing and responsibilities towards their primary producers. Organic certification is not compulsory for Fair for Life holders.

TIPS:

- Before engaging in a Fair Trade certification programme, make sure to 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 Fair Trade 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 complicate 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 section on buyer requirements of this factsheet.

Product competition

Product competition depends on the threat of substitution with other products. Since baby vegetables fall in the high-end, convenience market segment, the force of this threat depends less strongly 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 section on market segments).

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

Since **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 specifically, 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, sales channel and segment. Demand for these products is growing in Germany and 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 less strong than for many commodity products, such as normal-sized carrots or tomatoes.

TIPS:

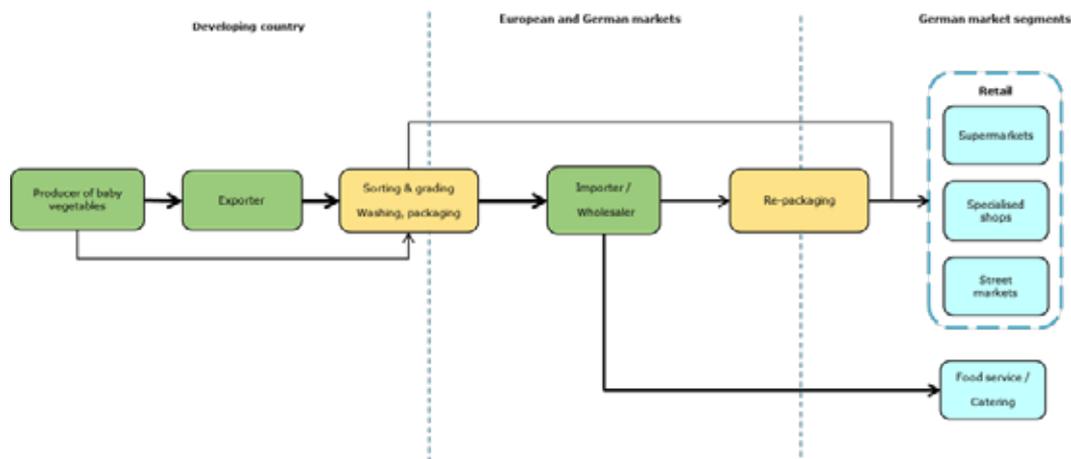
- To fill gaps in supply on the German and European markets for baby vegetables, you need to ensure freshness and quality of your products. Employ good post-harvest processes: store your products in clean containers in a clean warehouse, ensure hygienic grading and sorting conditions and apply strict sorting and grading standards. Store baby vegetables at the right temperature. Refer to the sections on transportation and buyer requirements for more info. You also need logistical and planning skills to ensure that your products arrive fresh in Germany.
- Focus your exports of fresh baby vegetables to Germany during Europe'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 pressure on you as a supplier as well to meet competitive prices, although this will be less strong compared to suppliers of normal-sized fresh vegetables.

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 it and communicate this with your buyers. Increasing this transparency builds trust with your 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 buyer requirements and price.

WHAT ARE THE MARKET CHANNELS AND INTERESTING MARKET SEGMENTS FOR BABY VEGETABLES IN GERMANY?



Market channels

Production and exports

Baby vegetables for exports are grown by large-scale farming, small-scale, traditional farming as well as small to medium-scale contract farming. 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 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 exporting companies, which usually carry out post-harvest treatments such as sorting, grading, cleaning or washing, and packaging & labelling. The post-harvest steps carried out at the producing country will depend on the requirements of the customers 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 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 are usually specialised in fresh produce like fruits and vegetables at large or are more specialised importers. Examples include [Bud Holland](#) and [Nature's Pride](#) in the Netherlands, specialised 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 specialised 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 were traditionally solely supplying to catering, restaurants, hotels but are increasingly open to end consumers as well.

Market segments

Generally, baby vegetables can be situated in 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 as high as their conventional counterpart ([GfK Consumer Panel, 2013](#)). Therefore, it is estimated that around one third of baby vegetable sales in Germany takes place during the month of December, when consumers are willing to pay more for produce during festive days ([Prince de Bretagne, 2011](#)). Nevertheless, the German consumers are in general increasingly paying attention to convenience, quality, 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 sold through speciality retailers and farmers' markets. Comparatively, availability of baby vegetables in supermarkets is small, but increasing. In general, around 90% of fresh vegetables is 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 the increasing demand for convenience snacks, and therefore, 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 ([FreshPlaza, 2015](#)). Baby corn is usually available in preserved form, in cans and jars.

Moreover, special retailers/wholesalers (for example [FrischeParadies](#)), which were traditionally supplying baby vegetables to the food service sector, are increasingly open to end consumers.

Food service

The food services sector is an important market segment for baby vegetables. In the food services sector, baby vegetables are used for their tastefulness, as flavouring substances are more concentrated than in conventional vegetables ([Fruchthof Northeim](#)). Also within this market segment, baby vegetables are mostly used in the 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 EURO PER 100 GRAM

- Baby carrots: 0.40 – 2.50 euros
- Baby corn: 1.65 – 2.00 euros
- Baby courgette: around 1.00 euro

Source: [Supermarktcheck.de](#), [Frischeparadies](#), [Sandner-Fruechte](#), [petit Rungis](#)

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

USEFUL SOURCES

Press and associations

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

German/European importers and wholesalers include:

- Nature's Pride – <http://naturespride.eu/home>
- Best Fresh Group – www.bestfreshgroup.com
- Wealmoor – www.wealmoor.co.uk
- Herbafrucht GmbH – www.herbafrucht.de
- HPW AG – www.hpwag.ch
- Frische Paradies – www.frischeparadies-shop.de
- Sandner Früchte Online – www.sandner-fruechte.de
- Petit Rungis express GmbH

RELEVANT TRADE FAIRS

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

- BioFach, Nuremberg, Germany – www.biofach.de/en
- Fruit Logistica, Germany – www.fruitlogistica.de/en/

MORE INFORMATION

CBI market information: Promising EU export markets.

EU Expanding Exports Helpdesk – <http://exporthelp.europa.eu> – go to 'trade statistics'.

Eurostat – <http://epp.eurostat.ec.europa.eu/newxtweb> – statistical database of the EU.

Several queries are possible. For trade, choose 'EU27 Trade Since 1995 By CN8'.

International Trade Statistics – www.trademap.org – you have to register.

This survey was compiled for CBI by ProFound – Advisers In Development in collaboration with CBI sector expert Jos Leeters. December 2015
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