

Study on market-related issues
regarding plant variety protection
Final Report



August 2016

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1. Introduction

Plant Varieties and Community trademarks are closely interrelated: the Community Plant Variety Office (CPVO) examines the suitability of plant variety denominations and part of its examination is to check whether earlier trademarks with the same denominations exist; EU Intellectual Property Office (EUIPO) examines grounds for refusal and part of this examination is to check if plant variety denominations exist which coincide with or are confusingly similar to the trade mark.

This shows the importance of understanding the economic impact of plant varieties. Trademarks and plant varieties constitute market values and grant market monopolies. They represent considerably important business interests and, in case of conflict, they may trigger infringement actions and long court disputes.

Analysis, mainly based on former cases filed at the EUIPO Boards of Appeal (BoA), raises a lot of questions which are likely to arise in the process of the application of the new absolute ground for rejecting a CTM application.

This study was commissioned to undertake market research into the relationship between trade mark name and variety plant name protection within the EU market. BoA will use the results of this study as reference for future cases, and within the frame of the new AG (Article 7(1)(m) CTMR) introduced by the legal reform.

Summary Findings

- The four industries (Agriculture, Fruit, Vegetable and Ornamental) may be divided into 8 segments, which correspond to the end use of the plant or plant-derived product,
- The products are delivered to the consumer via either a food or an ornamental supply chain, with many of the same actors involved across different segments within the supply chains,
- Interactions between actors in the supply chains can be complex, involving both physical transfer of plant material and plant-derived products as well as financial interactions involving royalty agreements and growing contracts,
- There is a clear differentiation between Professionals and Consumers within the supply chain, both in terms of product knowledge and buying behaviours,
- In general, variety names are not commonly used in marketing and branding, with trademarks used more readily when product marketing is required,
- For processed foods, variety name is invisible to the consumer at the point of sale,
- Variety name may be used for fresh produce, but this is mainly for old varieties for which the breeders rights have expired,
- The Fresh Produce segment and Ornamental industry use trademark names when marketing specific products that are highly differentiated,
- There are several pieces of EU legislation that governs food labeling, but the one that is relevant to variety name is EU Regulation 543/2011, which sets marketing standards for fresh produce,
- Professional buyers in the supply chain have a relatively high technical and biological knowledge of the products, and purchasing decisions are made in a highly rational manner,
- Consumers have a much lower technical and biological knowledge, with purchasing decisions made on the perception of quality vs. price,

- Large retailers increasingly undertake the variety selection on behalf of consumers, and use quality appropriate packaging and branding to allow the consumer to differentiate between product quality grades quickly and easily,
- Globalisation of supply chains is delivering an ever increasing range of product varieties to retailers, which is confusing to consumers,
- Mid-sized & smaller sized agricultural breeders use variety names as the brand, rather than a trademark name, but the brands are not that well known,
- It is generally only older varieties of staple foods that are well known to consumers – apples, potatoes plus newer products that require the variety name for differentiation e.g. chili peppers, mushrooms,
- There are very few famous ornamental variety names, consumers instead associating with the botanical and common name,
- Breeders may use PBR and Trademarks to protect IP in different ways in different geographies, to control supply, quality and to maximise revenue generation,
- The strategies employed depend on the competitiveness of the segment and the geographies of interest,
- Professional Buyers are, in general, not confused by the same or similar product variety names,
- Likewise, consumers, in the event that variety name is presented at the point of sale, would not normally notice, or be confused by the same name,
- Only the same name applied to plants or products of the same genus is perceived to cause confusion,
- Trademarked names that have a close association with a single variety (and / or growing location), and that is used to market a number of different varieties is perceived by some experts as confusing to consumers,
- The possibility of a consumer being presented with the same variety of (e.g.) apples, one that is trademarked and the other not, and sold for a difference price is equally viewed by some experts as unfair practice,
- The implementation of EU Trademark Directive 2015/2424, interpreted within the context of CPVO Articles 63 and 17 is perceived by most experts to provide the framework for a pragmatic means of avoiding conflict between variety name and trademark within EU-28,
- There is no evidence of anti-competitiveness in the market as a result of awarding either a plant variety denomination or trademark within the existing legal framework.
- There are a number of examples of unscrupulous behavior with regard to the propagation and sale of protected plant varieties, especially in the Ornamental sector, but the majority of which are dealt with through a mixture of market self-regulation and policing.

2. Project Background, Objectives and Approach

2.1 Introduction

The Boards of Appeal have, in the past, had cases in which the registration of a trade mark was refused because marks requested consisted of protected plant variety denominations protected (or having had protection) in Europe. Several questions on market-related issues regarding plant variety protection were raised during BoA deliberations. Recently, the BoA decided in a case to summon the parties to an oral hearing where experts from the plant variety sector were invited.

In the future, the Office and its Boards of Appeal can expect to have more and more cases regarding plant variety protection issues. The Office can expect not only AG cases but also invalidity cases based on Article 53(2)(d) of the CTM Regulation. An advanced level of knowledge in this area would enable the whole Office to treat all these cases in a harmonized way and the Boards to resolve all the disputes efficiently.

In that context, it is also noted that the EU Regulation (CPVO) establishes a non-exclusive system of plant variety rights, which coexist with national plant variety rights and denomination. Furthermore, the European Union is contracting party of the UPOV Convention.

2.2 Project Scope, Approach, Methodology & Results

The scope of the project is to provide EUIPO BoA with a study on market-related issues regarding plant variety protection. The scope of the project considers the following industries¹:

- Ornamental Crop
- Agricultural Crop
- Vegetable Crop
- Fruit Crop

BoA requested the study to explicitly address 33 questions, grouped into 11 different Areas.

Deloitte elected to engage its strategic delivery partner, 10EQS, to lead the execution of the project, on the basis of its unique crowd sourcing approach. The 10EQS model leverages targeted on-demand expertise to hard-to-answer questions and hard-to-find insights. Consulting engagements are led by highly experienced management consultants, selected for their knowledge and experience of the subject matter at hand.

For this project, 10EQS recruited a network of experts from across the four industries of interest, and augmented this with a comprehensive secondary research initiative in order to answer each of EUIPO's questions explicitly and individually, combining the various data points, insights and information to generate a single triangulated and robust market-driven 'point of view'.

The research methodology comprised an iterative approach of expert interviews (expert profiles referenced in the Annex) and through analysis of publically available data and analyst reports.

A summary of the answers to the questions is presented in the following table.

Area	#	Question
1 - The relevant public	Q1	How the relevant consumer circles are to be distinguished between general public and professionals?
	Q2	Which is the targeted sector of professionals and/or end consumers for each of the categories of goods described before?
	Q3	Who is the typical seller and the typical buyer of the different goods applied for in the distribution system? Please elaborate on those different groups (for example: plant breeder, plant propagating, retailing, gardener, hobby gardener, farmer, online retailers, general retail stores)
	Q4	Finally, how the relevant consumer circles perceive plant varieties in relation to trade marks? How is the consumer able to distinguish on the label a trade mark from the plants' name(s)?
2 - Marketing, Branding and labelling	Q5	How plant varieties and plant variety products are marketed?
	Q6	How does a plant breeder prepare the marketing of a newly bred variety and how does he obtain and maintain protection of IP rights?
	Q7	How propagation material is marketed?
	Q8	How the plant variety names are used in the market?
	Q9	How are these different categories of goods branded and labelled?
	Q10	What is the information given on the packaging or in advertising?
3 - Choice by the buyer	Q11	What type of information or way of presentation is obligatory? Please determine which regulations are in place at national and EU level and their impact on the market.
	Q12	On which criteria does the buyer (professional / end consumer) make his choice between competing products?

¹ This industry categorisation is compliant with CPVO classification

Area	#	Question
	Q13	What is the importance of the variety name and / or the trade mark?
4 - Market description	Q14	What are the main actors in this field and how the market is shared between them?
	Q15	What are the different segments of the market and do they correspond to specific categories of varieties/products?
	Q16	What plant variety brands gained reputation on the market and in which sector?
6 - Filing strategies	Q17	What is the interest in filing broadly for all types of plants?
	Q18	Does the applicant intend to use the trade mark for all types of plants?
	Q19	Will a trade mark usually be used for different plants?
7 - Related species, similar products or same type of product	Q20	How the market and consumers understand the concepts of related species, similar products or same type of products?
	Q21	Could you please explain what could be related species for, e.g. a rose variety; for an apple tree; for a tomato plant?
	Q22	What should one understand as similar or same type of products?
	Q23	What may the relevant public believe if it is shown a plant variety under the name of another species of same or different genus? For instance, what may the relevant public believe if it is shown a rose branded under the generic name of an Iris?
8 - Deceptiveness	Q24	What is the impact of an Iris variety name or other varieties for a trade mark applied for roses?
	Q25	Does the relevant consumer necessarily consider that for instance the Skyfire® rose will have any common characteristics with the 'Skyfire Iris'?
	Q26	How a consumer will perceive an onion branded under the name of a potato? What about the hybrids?
9 - Conflict of trademarks and plant variety designations	Q27	Does a registered trade mark, independently of any use, block the registration of a sign as a variety name for any new variety? According to Article 63 CPVO, the CPVO may not allow registration of a plant variety name if the same or similar name is already registered as a trade mark
	Q28	Is it common in the market to use plant varieties denomination names as trade marks or transform an earlier trade mark into a plant variety denomination?
10 - Products deriving from plant varieties	Q29	How these products are marketed?
	Q30	Are they identified by using a trade mark and also the plant variety denomination?
	Q31	Are product ingredients coming from plant varieties identified with the plant variety name in the indication of the composition of that product?
11 - Competition aspects	Q32	May tensions between trademarks and plant varieties generate distortions of the competition in the EU market?
	Q33	May competitors use these rights in combination in order to delimit market territories or segments?

3. Research Findings

The questions posed of this project were initially divided into 11 separate question Areas, and the research findings presented in this report address each question individually, within the context of the Area, and addressed in the order that the questions were posed. The exception is *Area 4: Market Description*, which is addressed first as a means of providing the foundational context for each subsequent question Area.

A valuable point of introduction to variety names is by a definition provided by the Community Plant Variety Office (CPVO) which defines a plant variety right as an “*intellectual property right, like a patent, but designed for plant varieties of which material is produced and commercialised.*”² A variety name (or denomination) is selected by the applicant for the new variety, that could be a recognisable name or an alpha-numeric code, which serves as the unique identifier for that plant variety. Plant variety denominations are unique within the plant genus, but may be duplicated between different genera.

The successful applicant is granted Breeder’s Rights by CPVO, protecting the intellectual property associated with the new variety that has been developed for a defined period of time, which allows for the control over the distribution of the plant material. The breeder’s rights do not in any way limit the use of the variety name per se by a third party, but it does restrict its use in association with the propagation and trade of plant material within the designated genus.

While not directly linked to a specific question in any question Area, it is important to note the market-related macro trends that impact on the importance of variety names to professional buyers and consumers alike over the last 30 years.

The research revealed a general decrease in awareness of variety names caused in part by two global macro trends: the increasing globalization of supply chains and the rise of the supermarket retail chain.

Following the rapid growth in air transportation, supply chains are more globalised than they have ever been and perishable foods can often be harvested and shipped across the globe to be sold to a consumer within 48 hours. Indeed, plant breeders in Europe regularly contract with propagators and growers in Africa in order to access optimum growing conditions for their varieties. Competition is global rather than local or regional making the range of products available to European consumers increasingly vast and available all year round.

In turn, supermarkets now dominate the retail landscape across many European countries. As retail ‘multiples’, they offer a staggering variety of product categories under one roof, with high levels of consistency between sites meaning they increasingly control their supply chains. For non-manufactured goods, the preference is to apply supermarket branding based on its own quality classifications, which drives customer loyalty to the store rather than a specific product.

The impacts of these trends are that there are so many different varieties on offer that it is almost impossible for the vast majority of consumers to make a rational purchasing decision based on the variety name, which would require an understanding of the individual attributes of each variety available. Instead, supermarkets increasingly make the variety selection decisions on behalf of their customers. As a result, consumers of plant-derived products are becoming less and less aware of variety names, relying increasingly on large retailers for guidance, distilling the decision to buy based on a trade-off between perceived quality and price.

² http://www.cpvo.europa.eu/documents/infodd/Notes_for_applicants_EN_2016.pdf

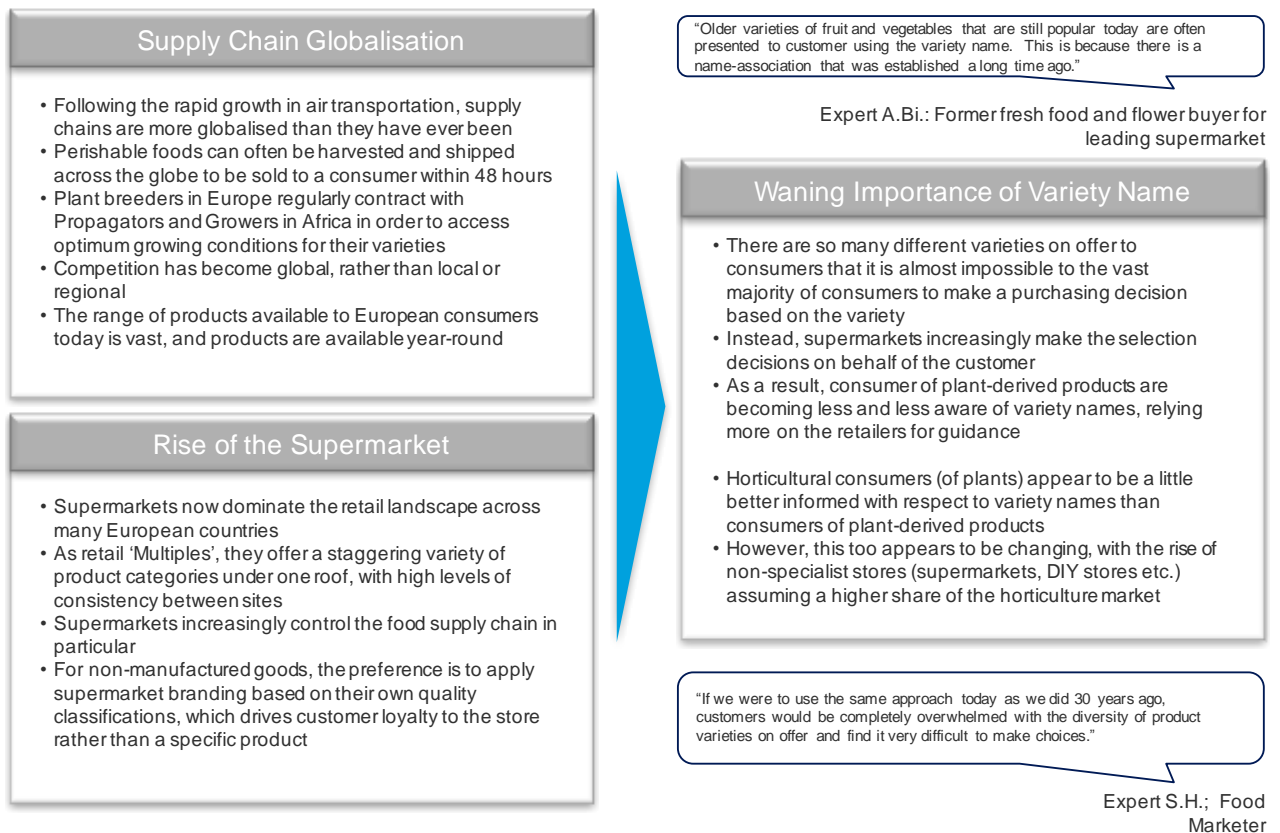


Figure 1 – Macro-trends of food supply chains

While horticultural consumers (i.e. buyers of live plants) appear to be a little better informed with respect to variety names than consumers of plant-derived products, this too appears to be changing, with the rise of non-specialist stores (supermarkets, DIY stores etc.) assuming a higher share of the horticulture market.

"If we were to use the same approach today as we did 30 years ago, customers would be completely overwhelmed with the diversity of product varieties on offer and find it very difficult to make choices."

Expert S.H.; Food Marketer

"Older varieties of fruit and vegetables that are still popular today are often presented to customer using the variety name. This is because there is a name-association that was established a long time ago"

Expert A.Bi.: Former fresh food and flower buyer for leading supermarket

Experts suggested strongly that this trend is set to continue into the future, with variety names decreasing in importance, other than a unique identifier for a plant and plant-derived tradable products.

3.1 Area 4: Market Description

Q14 - What are the main actors in this field and how the market is shared between them?

There are roughly ten specific actor types that exist within the four industries. The table on the following page summarizes each actor, their interactions and the relevant industries.





There are numerous specific organisations involved in these industries, from large multi-national organisations to local small and medium-sized enterprises.





A number of the larger actors are represented in figures 2-9.

Market share between actors was not assessed owing to the large number of actors and complexity of the market. However, the overall size of the four industries across the EU was investigated and found to be approximately €280 billion annually (measured in terms of the value of goods sold to the consumer). The market size was subdivided by segments where possible, as illustrated in Figure 1.

The Industrial-related segments (refer to Q15 for definitions) represent around 95% of the market, with the Domestic-related segments just 5% of the market. This is critical context for understanding the tangible market impact of variety name and trademark name conflict between segments.

The approximate split of revenues between the different actors was also assessed for each segment. In general, the retailers and the growers take the largest share of the retail value of the goods produced in each case. Refer to Figure 2..

	Breeders	Seed Distributors	Seed Propagators	Plant Propagators
Description	<ul style="list-style-type: none"> • Most usually large multi-national companies engaging in research & development of new plant varieties. • Usually address multiple plant markets • Requires significant capital investment • High risk business with 5-10 year development, testing and certification cycles • Secure Breeders Rights for each new commercial variety developed • Generate revenue through monetisation of the IP (most usually a royalty-based income) 	<ul style="list-style-type: none"> • Most Breeders do not have the capacity to produce seed at scale or sell to Growers • They most often contract with Seed Distributors, who will work under license to the Breeder to propagate the seed, market and distribute to Growers • Will often contract with a portfolio of Propagators Growers to produce the seed, which is then sold to 'product' Growers • Generate revenue through the sale of seeds and plants 	<ul style="list-style-type: none"> • Scale the new variety ready for sale to commercial Growers • Produce seeds for Seed Distributors, under conditions that maintain the variety IP • Propagate as a service to the Breeder / Distributor and paid a propagation fee • Also undertake large-scale trials and testing for Breeders 	<ul style="list-style-type: none"> • Scale the new variety ready for sale to commercial Growers • Produce plant material using a variety of vegetative (i.e. asexual) processes to rapidly scale the new variety • Either propagate as a service to the Breeder / Distributor and paid a propagation fee or, • Buy a license to propagate from the Breeder, and sell plants directly to Growers, paying a royalty back to the Breeder
Interactions	<ul style="list-style-type: none"> • Food crop Breeders engage with retailers, traders, food processors and their agents on an ongoing basis as a means of understand what product attributes the market requires • Also engage with the Grower community to understand what yield improvements are required • Breeders 'sell' their product to distributors in the form of a license • Flower Breeders interact across the supply chain to create demand for their product 	<ul style="list-style-type: none"> • Seed Distributors sell the new variety seeds to Growers (as well as other agricultural products and services) • They invest in the license to propagate and distribute new varieties and pay a royalty back to the Breeder for every tonne of seed sold • They invest in marketing the product to Growers, Traders, Processors and Retailers to build demand 	<ul style="list-style-type: none"> • Seed Propagators most usually are paid by the Seed Distributors to grow the seed in commercial quantities • Can also work with Breeders during the trials and testing process 	<ul style="list-style-type: none"> • Plant propagators may work directly for Breeders, but this is rare • Most usually, Plant Propagators operate under license from the Breeders and sell directly to commercial Growers • Plant Propagators directly market new varieties to Growers, usually in a coordinated effort with the Breeders or a Marketer or Brand Licensor
Ind.				

	Growers	Brand Licensor	Merchants / Cooperatives / Specialist Traders	Food Processors / Manufacturers
Description	<ul style="list-style-type: none"> Usually a Grower will produce a percentage of its crop under contract with a Merchant / Trader, Processor or Retailer The Grower is directed what it needs to produce – selecting from a list of acceptable varieties Seeds are usually purchased from Seed Distributors, or provided by the buyer (who has purchased from a Distributor) Fruit and Flower growers may grow under license from the Breeder or purchase plants from licensed Propagators 	<ul style="list-style-type: none"> Plant varieties that are trademarked usually involve a network of Brand Licensors, usually with specific geographic remits Brand Licensors purchase the rights to the trademarked product (from the Trademark holder) and control the supply of the product Licensors may in turn license Merchants to sell the trademarked variety to wholesalers, retailers, restaurants etc. Brand Licensors generate revenue through royalty payments They pay for all marketing and advertising 	<ul style="list-style-type: none"> Large, multi-national produce and flower traders, regional players or Grower-owned Cooperatives that buy from Growers May be highly influential players in the supply chain acting as supply chain aggregators and global distributors Buy from Growers only what they can sell to their customers – processors, manufacturers, wholesalers and retailers Often contract with Growers to grow certain crops, or advise or crops to grow based on demand Make a profit margin on the sale of every product 	<ul style="list-style-type: none"> Buy raw inputs from Merchants or direct from Growers Convert plant-derived raw materials into a food product (e.g. ready-meals, cakes, desserts, juice), or extend the shelf-life of perishable foods through preservation (e.g. canning, freezing) Processing is often a means of utilising 'seconds' grade fresh produce that would otherwise be wasted (e.g. fruit juice) Also use 'firsts' grade and even premium ingredients in manufacturing Sell finished goods to Wholesalers and Retailers
Interactions	<ul style="list-style-type: none"> Growers have relationships with buyers – Merchants, Traders, Processors, Retailers - on the downstream side of the supply chain that direct the Grower as to what he/she should be producing Growers will also have relationships with Seed Distributors and Breeders on the upstream side, from which they select the varieties to grow Growers sell the plant products to their buyers The sale of certain varieties may incur a royalty payment to the Breeder 	<ul style="list-style-type: none"> Brand Licensors compete to buy the marketing and distribution rights to potentially high value trademarked products from the Trademark holder The Trademark holder is most usually the Breeder, and occasionally an intermediary in the supply chain Brand Licensor then license the rights to sell to specialist Merchants who actively market the product to their buyers <i>Brand Licensors, could be a formal partnership between the Breeder, Growers and a Marketer</i> 	<ul style="list-style-type: none"> Engage heavily both upstream and downstream in the supply chain to ensure that they are able to supply exactly what the market needs Interact with buyers to develop short and long term demand forecasts for different products Growers actively market new varieties to Merchants who work to create wholesale and retail demand Merchants negotiate a price with Growers – usually based on agreed volumes and quality criteria 	<ul style="list-style-type: none"> Processed and Manufactured products are driven by retailer demand as well as new product innovation Processors / Manufacturers develop product specifications that are provided to Merchants and Growers The finished products are marketed to wholesalers and retailers, as well as direct to consumers through advertising media
Ind.				



	Wholesalers	Retailers
Description	<ul style="list-style-type: none"> • Purchase processed and manufactured foods from producers in large volumes, and sell to small-scale retailers, restaurants and other food establishments in smaller volumes • Also act as product aggregators and 'last mile' distributors • Wholesalers make a profit margin on the sale of every product 	<ul style="list-style-type: none"> • Supermarkets, shops, restaurants, garden centres, gas stations... • Larger retailers usually disintermediate the Wholesalers as they have the size and scale to deal direct with Growers, Merchants and Processors (depending on the product) • Market and sell products direct to the end consumer • Large retailers invest heavily in product marketing and promotion • May pay royalties on the sale of trademarked products
Interactions	<ul style="list-style-type: none"> • Wholesalers buy from Food Processors and Manufacturers based on what they believe their customers will buy • In turn, they market the products to their buyers – small scale retailers and food establishments 	<ul style="list-style-type: none"> • Large retailers are highly influential in the value chain, generating a demand 'pull' effect that informs the supply chain what products are needed • Retailer Buyers engage with every supply chain function, and provide on-the-ground support to Growers and Merchants to ensure product quality • Small retailers have no influence on the supply chain, they simply purchase products from Wholesalers
Ind.		

Figure 2- Actor description summaries

Industry	Segment	Market* (€)	Description
Agricultural Crops	Industrial Agriculture	€80 billion	Production of cereal and grain crops that are used as raw inputs into a food manufacturing process to create products such as flour, bread, pasta, breakfast cereals, whisky, or alternatively used as animal feed
Vegetable Crops	Industrial Fresh Vegetable Produce	€100 billion	Production of vegetable crops that are sold to the customer in their raw form, either in loose form or washed, pre-cut and packaged. Around 80% of vegetables sold in Europe are classed as Fresh Produce
	Industrial Processed Vegetables		Production of vegetable crops that are either (i) manufactured into finished good such as ready-meals, or (ii) processed to extend shelf life using procedures such as freezing, canning or juicing and bottling
Fruit Crops	Domestic Horticulture	€5 billion	Production of seeds and young plants of fruit & vegetable varieties that are sold to consumers for growing in domestic homes and gardens
	Industrial Fresh Fruit Produce	€75 billion	Production of fruit crops that are sold to the customer in their raw form, either in loose form or washed, pre-cut and packaged. 90% of fruit sold in Europe is classed as Fresh Produce.
	Industrial Processed Fruit		Production of fruit crops that are either (i) manufactured into finished good such as cakes and desserts, or (ii) processed to extend shelf life using procedures such as freezing, canning or juicing and bottling
Ornamental Crops	Domestic Floriculture	€9 billion	Production of seeds and young plants of ornamental varieties that are sold to consumers for growing in domestic homes and gardens
	Industrial Floriculture	€10 billion	Production of ornamental plants for harvesting as cut flower stems and sold to consumers

Figure 3 - Supply chain actor summary

The market size is an approximation of the total consumer market value and the sources are listed in the Annex at the end of the document.

The markets within the four target industries where plant variety names are relevant can be broadly categorized within two generic supply chains: termed by this study as “food” and “ornamental”.

The food supply chain incorporates three of the target segments Agriculture, Fruit and Vegetable which includes all fresh and processed fruits and vegetables as well as grains, wheats and corn used (mostly) in processed food and drinks. This supply chain therefore inevitably scales a whole range of products that are found along supermarket shelves around the world. These include products like fresh fruits, fresh vegetables, frozen foods, ready-made meals, juices, purées, breads, pastas, whiskey, beer, etc. The food chain also includes edible domestic plants that are purchased by hobbyist gardener for their own consumption. The ornamental supply chain includes cut flowers, house plants and garden plants.

As illustrated Figure 4, the supply chains share many of the same actors across segments, and most often the same relatively small community of Breeders. The supply chains differ depending on whether the plant products are sold to the consumer as fresh produce, processed or manufactured into finished goods. Ornamental products have a different set of actors in the supply chain, but with some overlap in retail (namely the big supermarkets).

The following Figures also provide a summary of the characteristics, key players and approximate market share of each actor in each of the 8 specific supply chains across the 4 target industries to provide greater detail on each actor and their market motivations.

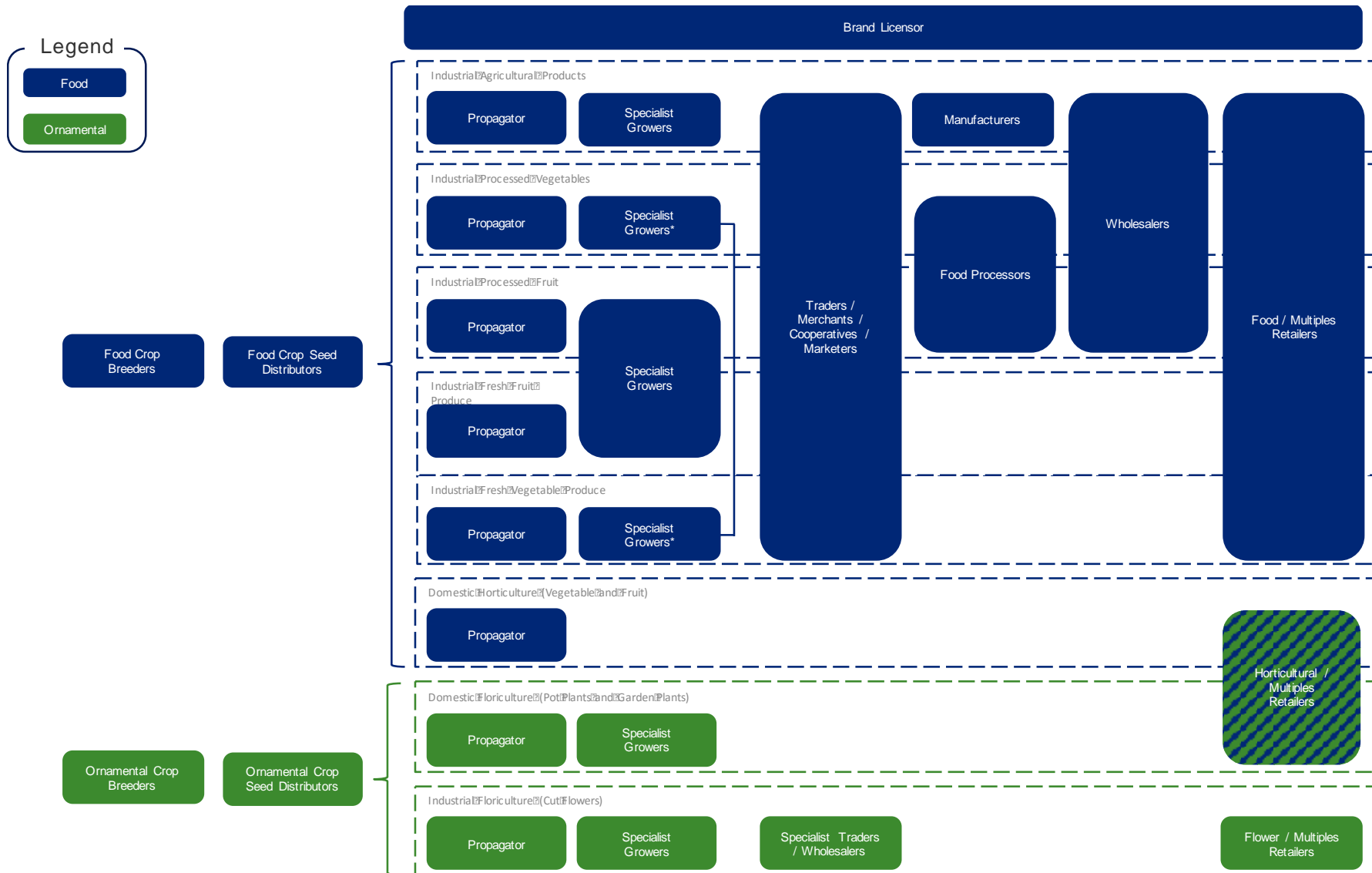


Figure 4 - Supply chain map

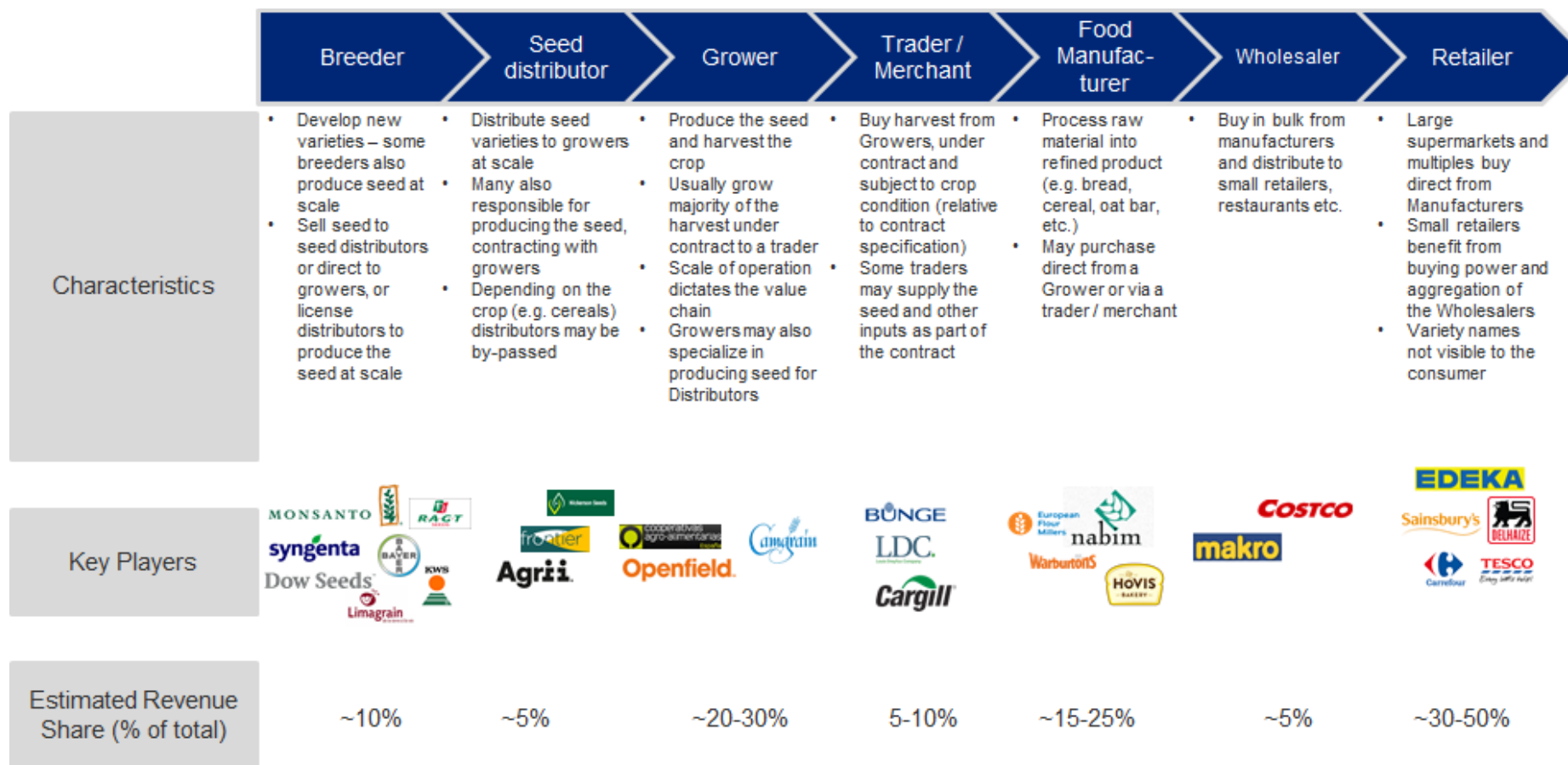


Figure 5 - Industrial Agricultural Products Supply Chain

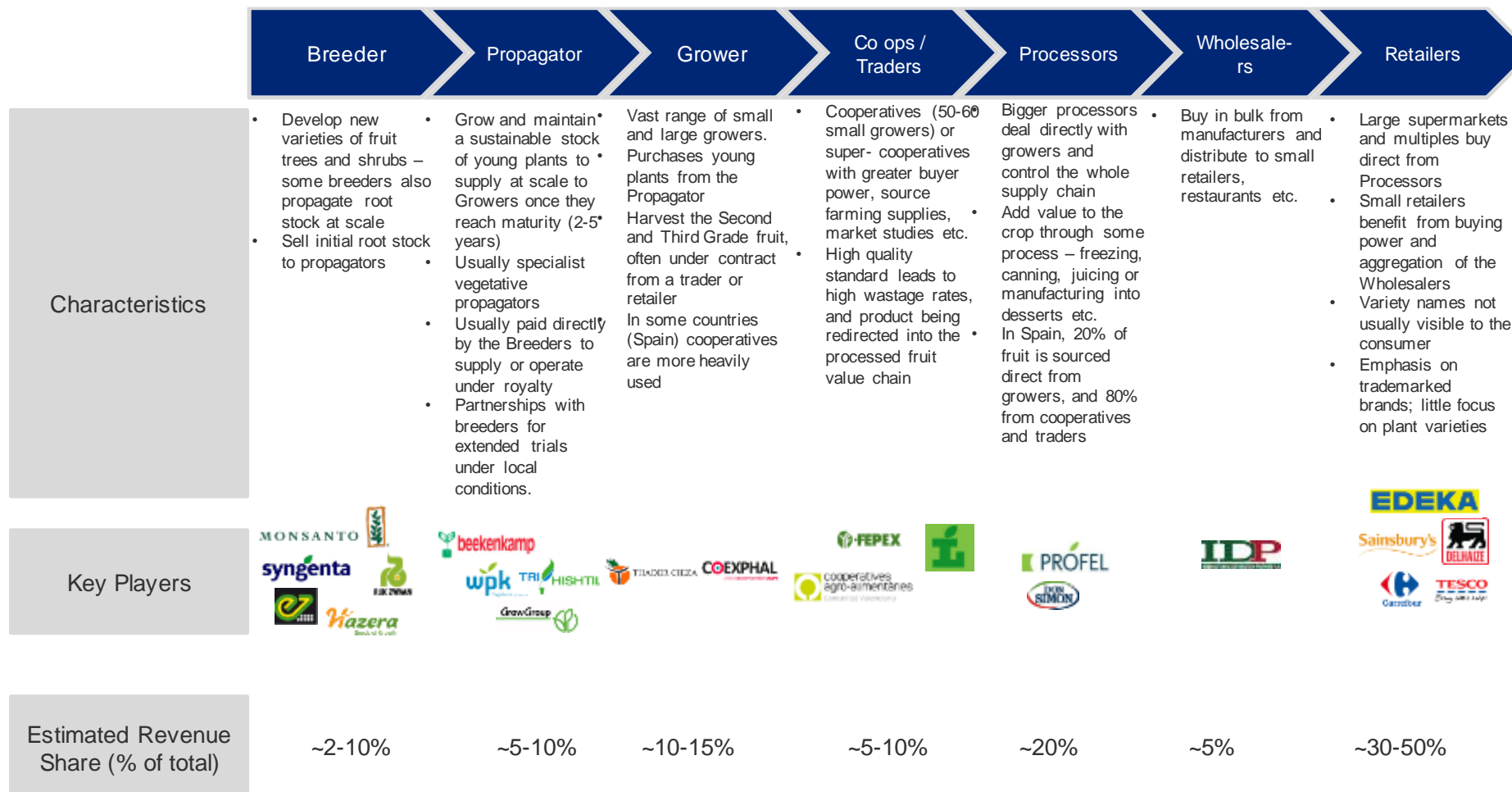


Figure 6 - Industrial Processed Fruit Supply Chain

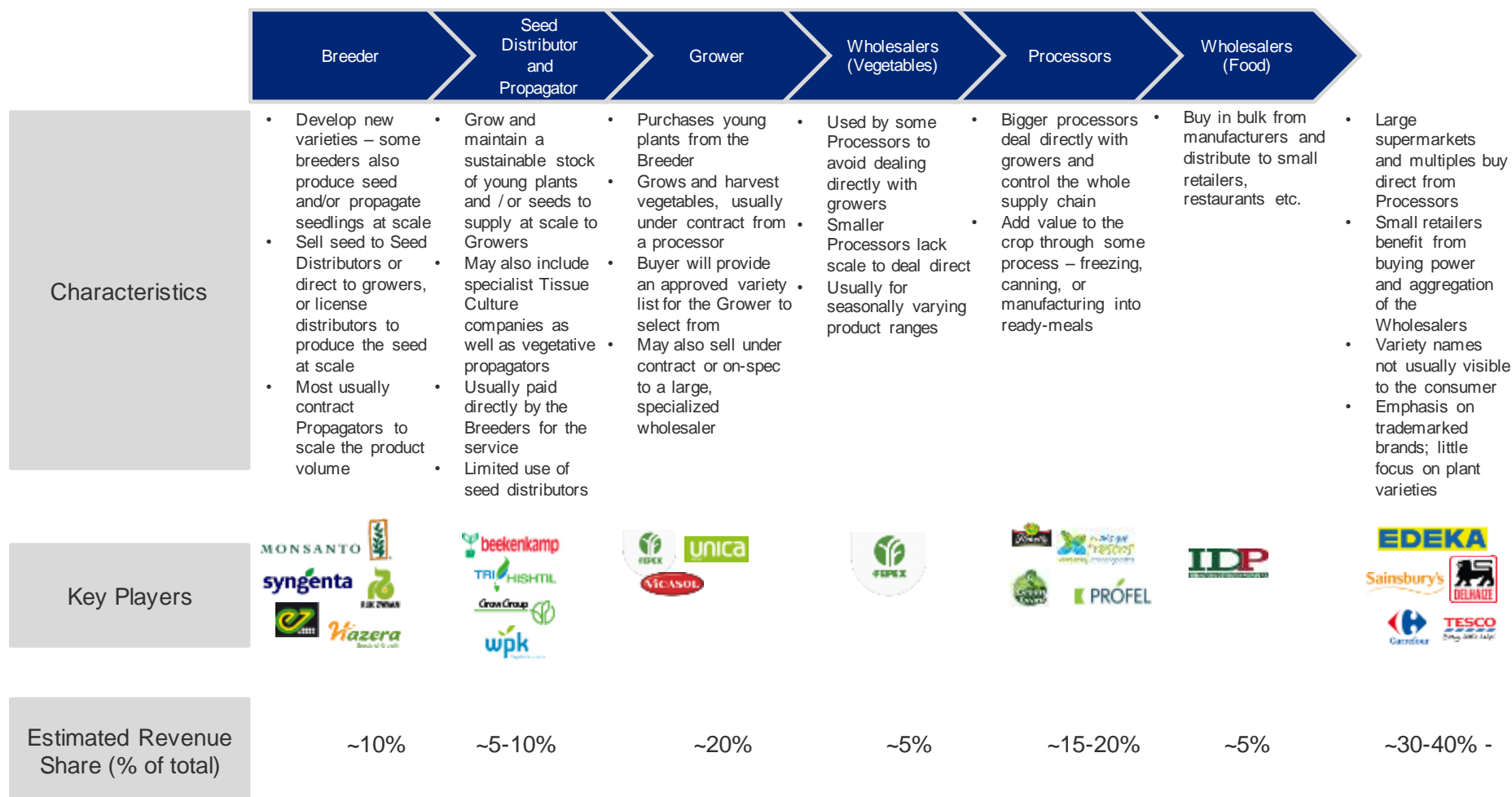


Figure 7 - Industrial Processed Vegetables Supply Chain

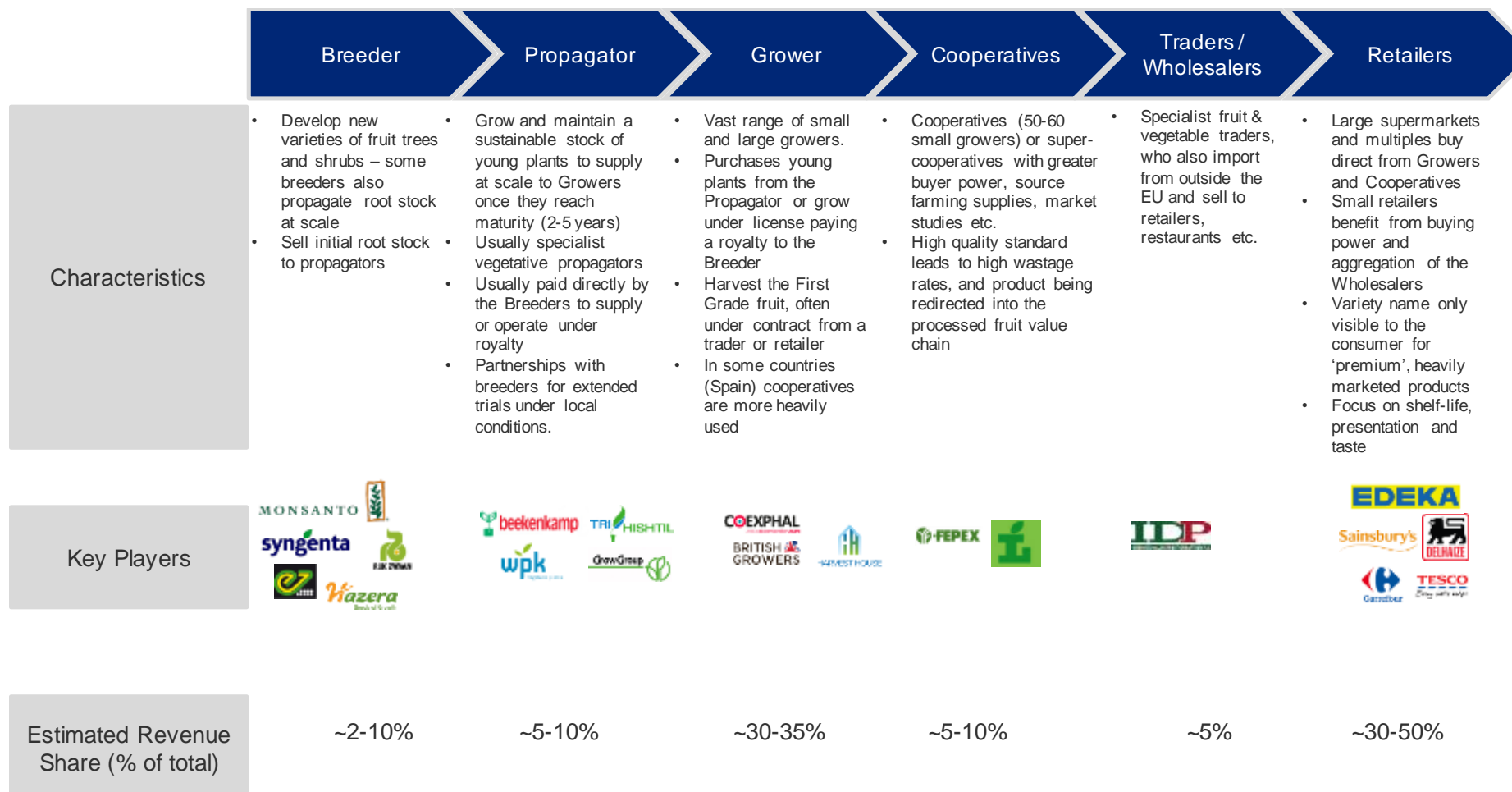


Figure 8 - Industrial Fresh Fruit Supply Chain

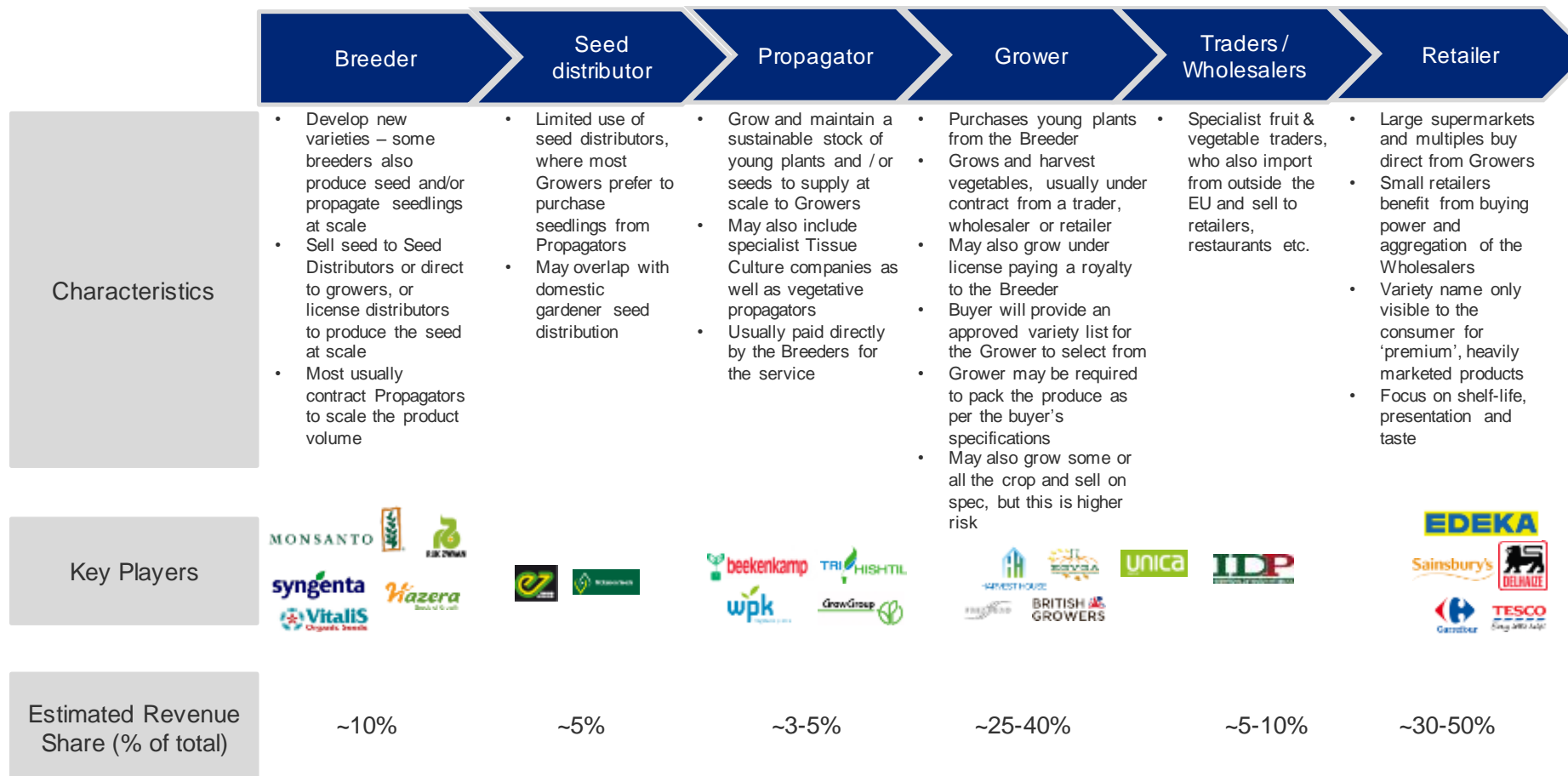


Figure 9 - Industrial Vegetable Supply Chain

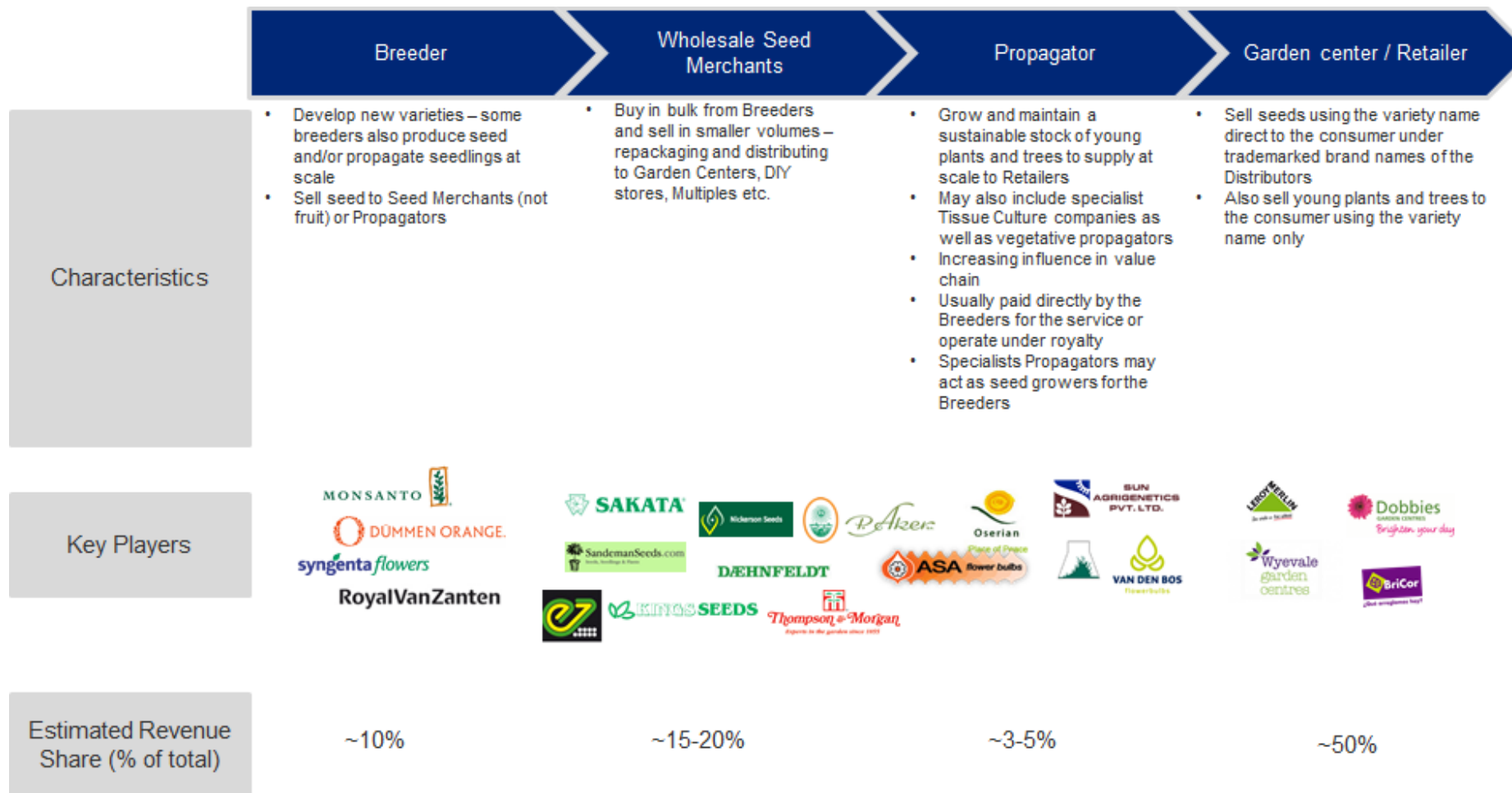


Figure 10 - Domestic Floriculture Supply Chain

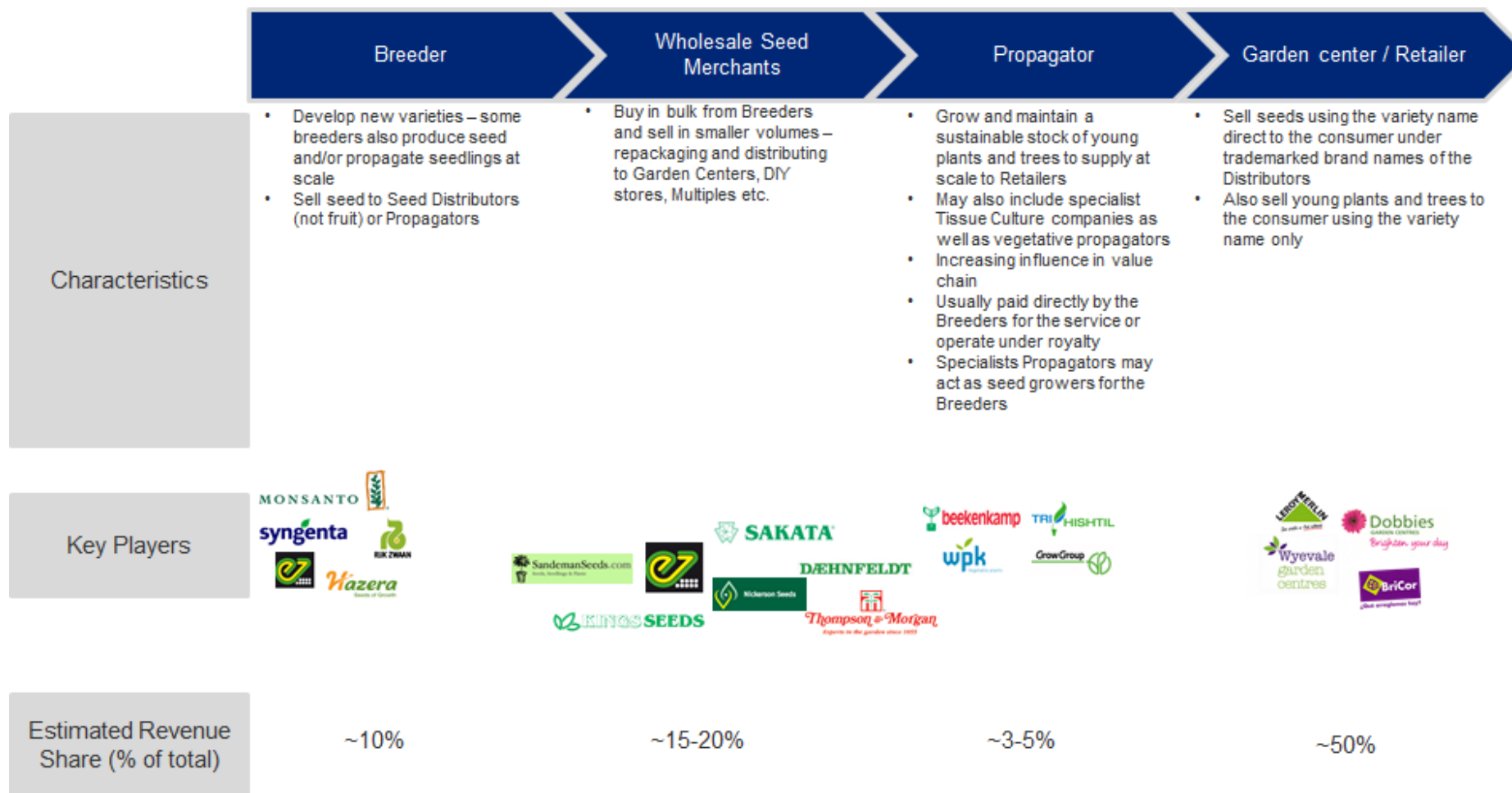


Figure 11 - Domestic Horticulture Supply Chain

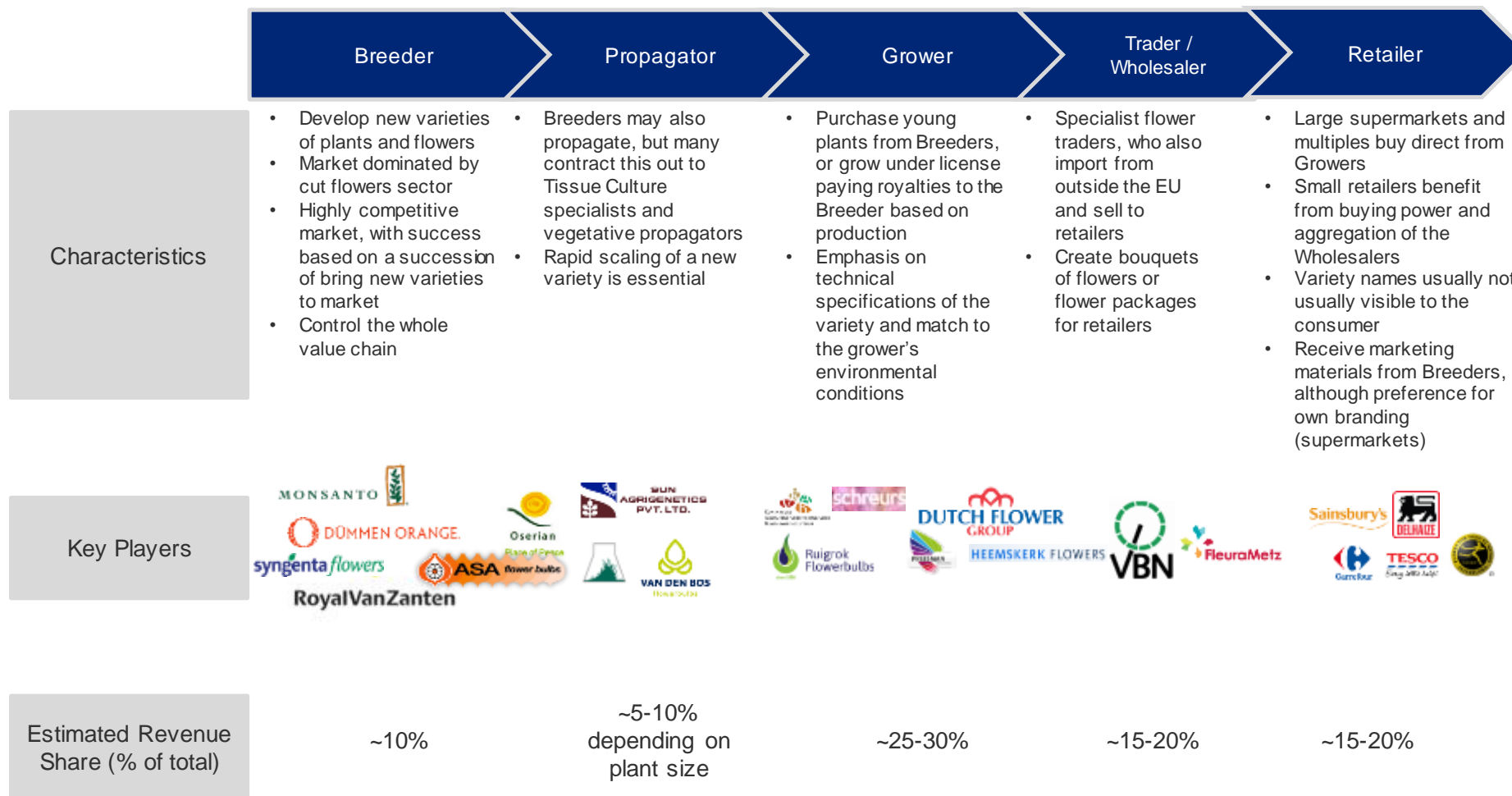


Figure 12 - Industrial Floriculture Supply Chain

Q15 - What are the different segments of the market and do they correspond to specific categories of varieties/products?

The four target industries may be subdivided into 8 different segments according to the way that the plant material is ultimately consumed, as follows:

- Industrial Agricultural Products (processed cereals and grains)
- Industrial Fresh Fruit Produce
- Industrial Fresh Vegetable Produce
- Industrial Processed Fruit
- Industrial Processed Vegetables
- Industrial Floriculture (cut flowers)
- Domestic Floriculture (house and garden plants)
- Domestic Horticultural (fruit & vegetables)

“Industrial” segments are those in which the consumable product is plant-derived – either foodstuff or cut stem flowers. “Domestic” segments are those in which the consumable product is a growing plant, or seeds from which the consumer will grow the plant themselves. Refer to Figure 1 and Figure 10 for more detail.

The segments do not relate to different categories of plant varieties. Each segment deals in hundreds of different products and varieties, often overlapping (e.g. fresh vs processed fruit & vegetables) where the differentiator is product quality – a “first” quality fruit being used for fresh produce, and a “seconds” quality fruit being processed or manufactured into a finished product.

3.2 Area 1: Relevant Public

Q1 - How the relevant consumer circles are to be distinguished between general public and professionals?

Each of the 8 segment supply chains, as presented in Figure 4, ends in a consumer purchase (i.e. general public). The intermediary actors in each supply chain are professionals engaging in a business-to-business (or B2B) transaction, whereas the end purchase is made by a consumer (or B2C transaction).

Q2 - Which is the targeted sector of professionals and/or end consumers for each of the categories of goods described before?

Professional buyers are best characterized as intermediaries – Breeders, Growers, Merchants, Traders, Processors, Wholesalers, Marketers and Retailers. Each actor is described in greater detail in **Error! Reference source not found.** Consumers ultimately buy manufactured and processed food, fresh produce, cut flowers and horticultural products.

Consumers (i.e. general public) can be segmented into 2 categories, relating to whether the retail outlet used is a generalist retailer (i.e. supermarket, DIY chain store) or a specialist retailer (i.e. market stall, green grocer, garden centre). Consumers who shop at a supermarket or DIY chain store are, in general, less well informed in terms of plant variety names compared to consumers that shop at a specialist retailer.



Target sector	Characteristics
Professional buyers 	<ul style="list-style-type: none"> • Intermediaries in the supply chain of each of the 8 market segments • The specific functional buyers vary by supply chain • Characterised as Business-to-Business (B2B) transactions • Decisions are highly rational, based on product attribute, volume and price <hr/> <ul style="list-style-type: none"> • Plant variety name is important as a product differentiator, but could just as easily be an alpha-numeric code as a catchy name • Breeders will sometimes trademark a product range to make it easier for growers to make seed selections • Experts state that this type of B2B marketing is not particularly effective • Technical product specification is paramount
Consumers 	<ul style="list-style-type: none"> • Consumers are the ultimate buyer of the plant, or plant-derived product, at the end of every segment supply chain • Consumers are either purchasing Food, Cut Flowers or Live Plants • Purchasing decisions are a combination of rational and emotional, based on a perception of quality and price <hr/> <ul style="list-style-type: none"> • Plant variety name is increasingly unimportant to consumers, particularly as the range of products available grows larger • Retailers undertake variety selection on behalf of their consumers • Consumers are often unaware of the difference between trademarked names, non-trademarked names and variety names on product packaging

Table 1 - Professional buyer and consumer characteristics

Q3 - Who is the typical seller and the typical buyer of the different goods applied for in the distribution system? Please elaborate on those different groups (for example: plant breeder, plant propagating, retailing, gardener, hobby gardener, farmer, online retailers, general retail stores)

The typical seller and buyer in a distribution system varies by segment and also by the revenue model employed by the breeder's rights holder. It also differs by segments depending on the degree of vertical integration in the supply chain. For example, a merchant may contract with a grower to produce a crop, and also provide the seed (under license from the breeder) as well as all the other agricultural inputs. A distribution system therefore does not often adhere to a linear process flow, but rather involves circular flows between different actors exchanging not only physical products but also financial transactions.

"Customers are not aware of the product biology. It is the retailers job to make these selection decisions for customers and to distinguish between different grades of products using brands and trademarks."

Expert A.Bi.; Fresh Produce Buyer for a large supermarket

These typical actor interactions are described in Figure 13 on page 29.

Q4 - Finally, how the relevant consumer circles perceive plant varieties in relation to trademarks? How is the consumer able to distinguish on the label a trademark from the plants' name(s)?

An important distinction to make between professional buyers and consumers is final purchase decision-making criteria. Professional buyers make buying decisions very rationally and are not influenced by a particular variety name. They place emphasis on product performance, technical specifications and ensuring the variety they are buying fits in with their business model and the requirements of their customers. The consumer (i.e. the general public), on the other hand, has a much more emotive or spur-of-the-moment element to their purchases. Purchasing decisions are a combination of rational and emotional, based on a perception of quality and price.

In B2B transactions, plant variety name is important as a product differentiator, but it could just as easily be an alpha-numeric code as a catchy name. Indeed, while some breeders will trademark a product range of seeds for marketing purposes, experts suggest that the effectiveness of this is questionable. It does, however, impact on growers who do demonstrate a degree of loyalty to particular trademarked product lines.

Moreover, retailers make the variety selection on behalf of the consumer and present the products according to perception of quality and price (value, premium, standard, etc.). Customers, generally speaking, do not therefore distinguish between trademark and variety name because they are increasingly sheltered by retailers from the variety name of fresh produce as availability of products becomes larger and more diverse. Variety names are also not generally viewed as important in the sale of garden plants, where botanical names (i.e. botanical names) are most common.

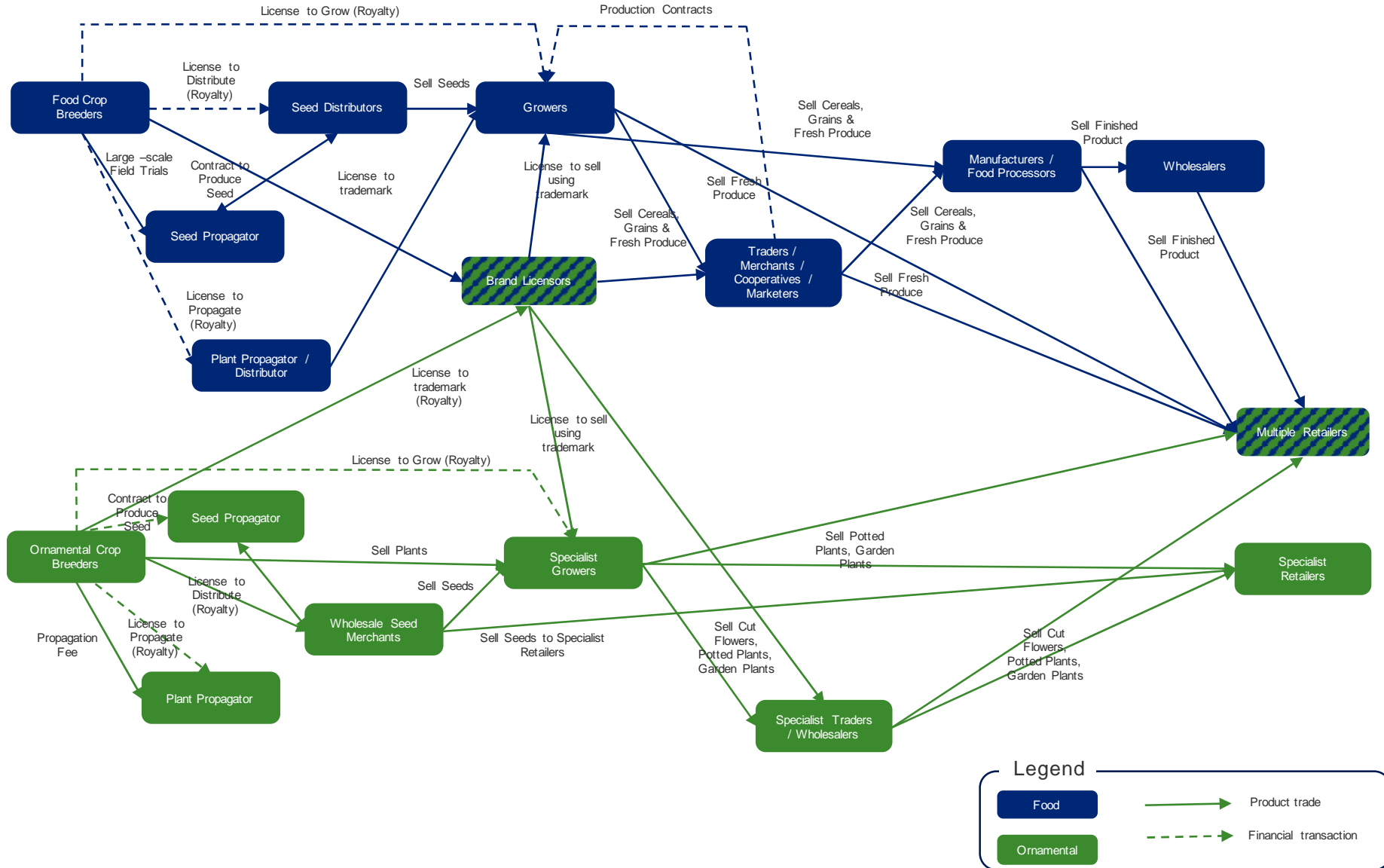


Figure 13 - Product and Financial flows

3.3 Area 2: Marketing, Branding & Labelling

Q5 - How plant varieties and plant variety products are marketed?

In the food and agriculture categories, the stimulus for new variety development is driven by growers (improved yield and quality), processors (raw materials specification) and retailers (product specification). Breeders often collaborate with supply chain actors to ensure that their R&D and product development processes are aligned with market requirements. Marketing of new varieties by breeders and seed distributors is therefore limited, other than to growers on the basis of yield improvement. In cases where a new variety possesses specific market differentiation characteristics (i.e. colour, shape, flavour, etc.) then this will likely be marketed with greater visibility of the variety name or under a trademark name. However, only an estimated 2-5% of fresh produce (fruit and vegetables) are marketed using a variety or trademark name.

Importantly, the ornamental categories are different to the food industries in this respect, in particular cut flowers. New varieties are selected and marketed by breeders independent of market influence from other supply chain actors. Flower breeders invest heavily in marketing new varieties to traders and wholesalers, and provide promotional material to retailers. New varieties are generally assigned a trademark name which is used throughout the supply chain to market the product. The competitiveness of the market is in part driven by the accelerated timeframes to bring a new product to market (c.3-5 years from concept to market).

Q6 - How does a plant breeder prepare the marketing of a newly bred variety and how does he obtain and maintain protection of IP rights?

Securing plant breeder's rights (PBR) are key for breeders in all of the 8 segments. PBR are registered via the CPVO which provides protection across EU-28. The breeder must individually secure PBR in other countries as necessary to provide adequate IP protection. In general, PBR are sought in all countries where the plant material is likely to be resident – propagated, grown, auctioned or sold to the consumer – and where there is the potential for the plant material to be appropriated and cultivated without the knowledge or consent of the PBR holder.

A new plant variety is only granted by CPVO if it conforms to distinctness, uniformity and stability criteria. Convincing CPVO of these criteria often takes around 3 years of field trials, which can delay the introduction of the variety to the market. However, the breeder can take the risk to launch a new variety into the market without acquiring breeders rights and monetize their IP through a trademark. Marketing by breeders is particularly important in the cut flower market, which is the most competitive (much more so than the other segments) and where breeders generally consider that they have just 2-3 years to make the return on investment. Because of this, in many cases, breeders do not register the variety name, preferring to register a trademark name instead and invest heavily in marketing in order to create a high volume of demand as quickly as possible, and accept that within 2-3 years the IP value has been lost. A trademark may be granted within a matter of months, rather than years for PBR, which is increasingly perceived by ornamental breeders as offsetting the risk of forgoing breeder's rights.

Q7 - How is propagation material marketed?

Propagation is the means of scaling the newly developed variety ready to sell into the market. The breeder will generally develop only a very limited volume of the new variety.

A high proportion of plant propagation is undertaken as a service to breeders (particularly vegetative propagation, where new plants are grown in a lab environment from non-sex cells taken from a parent plant) by specialist propagators. Often, natural (or "sexual") propagation is often undertaken by specialist growers under license to the breeder. Vegetative propagation provides the means to scale up a new variety very quickly, in many cases within 12 months, compared to natural propagation, which can take 5+ years to up-scale.

Marketing propagation material does not differ markedly from the approach to marketing plant varieties and plant variety products as presented in Q5 (above). The following 8 Figures provide greater detail on each segment.

New Variety Introduction

- Stimulation for research & development is driven by (i) Manufacturer / Processor demand (driven in turn by Retailers) and (ii) Grower's needs (yield improvement, disease resistance etc.)
- New varieties are most often developed in collaboration with the supply chain (in terms of testing and product validation) to ensure the process is focused and efficient
- Breeders and Seed Distributors will often agree a regional marketing strategy
- The new variety is usually marketed under an existing, or a new trademarked name or variety name to Growers, promoting the positive attributes i.e. downstream demand, higher yields and productivity, market price etc.

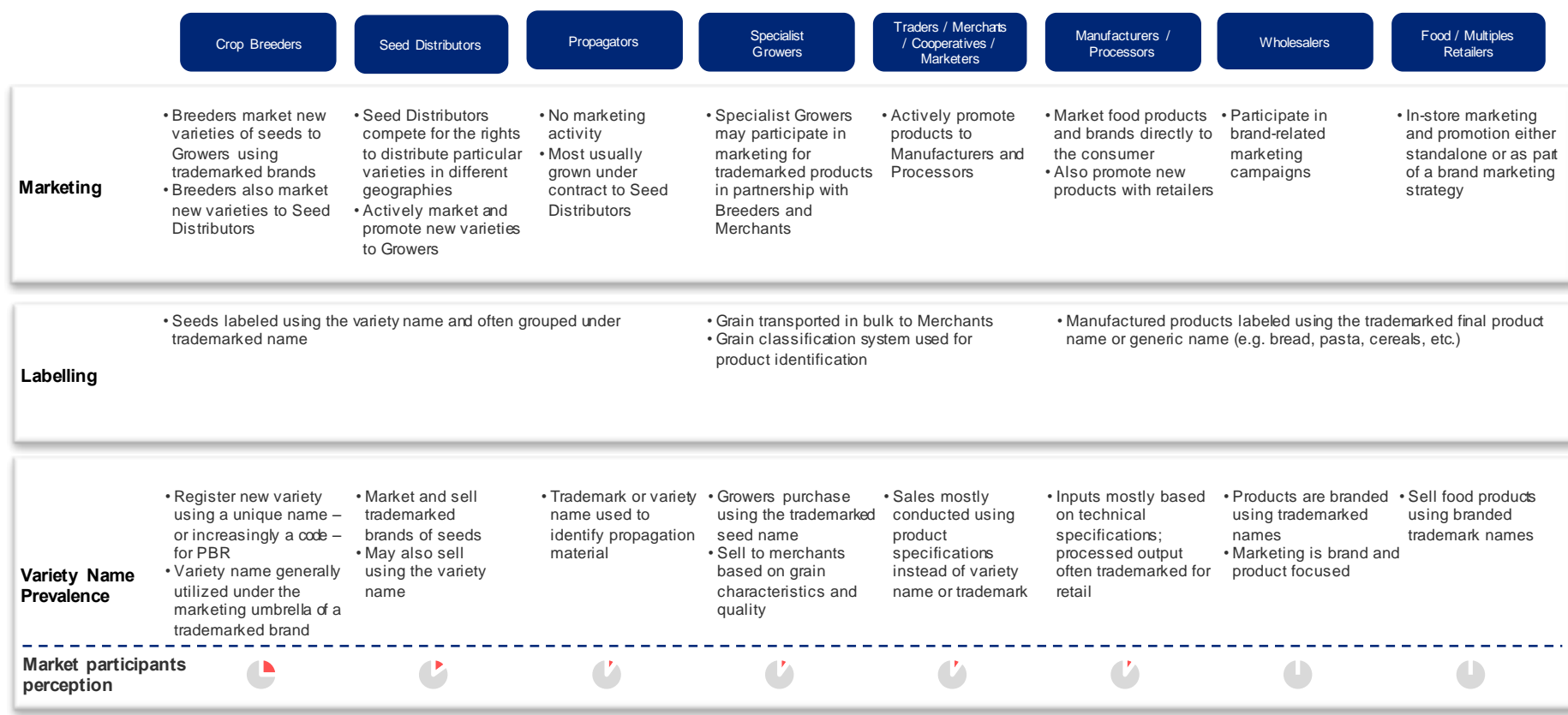


Figure 14 - Industrial Agricultural Products product development & marketing

New Variety Introduction

- The processed vegetable industry is generally not a major driver for new variety development – often utilises poorer quality produce that was originally grown for the fresh product market
- Exception is preserved vegetables (e.g. varieties that are specifically developed to freeze well, or retain more flavour in the canning process)
- The new variety is usually marketed under an existing, or a new trademarked name or variety name to Growers, promoting the positive attributes i.e. downstream demand, higher yields and productivity, market price etc.

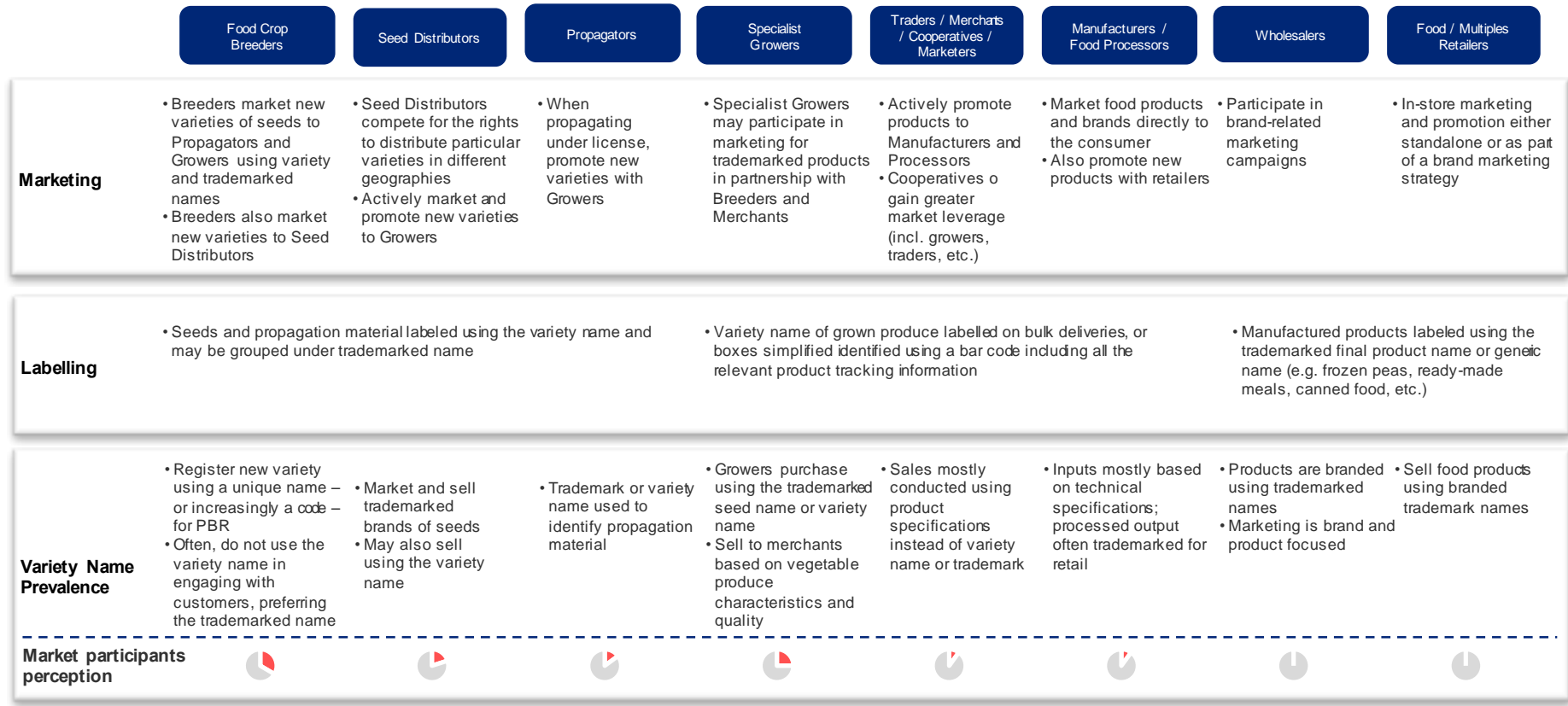


Figure 15 - Industrial Processed Vegetables product development and marketing

New Variety Introduction

- The processed fruit industry is not a major driver for new variety development – often utilises poorer quality produce that was originally grown for the fresh product market
- The rare exception is preserved fruit (e.g. varieties that are specifically developed specifically for jams, jellies etc.)
- The new variety is usually marketed under an existing, or a new trademarked name or variety name to Growers, promoting the positive attributes i.e. downstream demand, higher yields and productivity, market price etc.

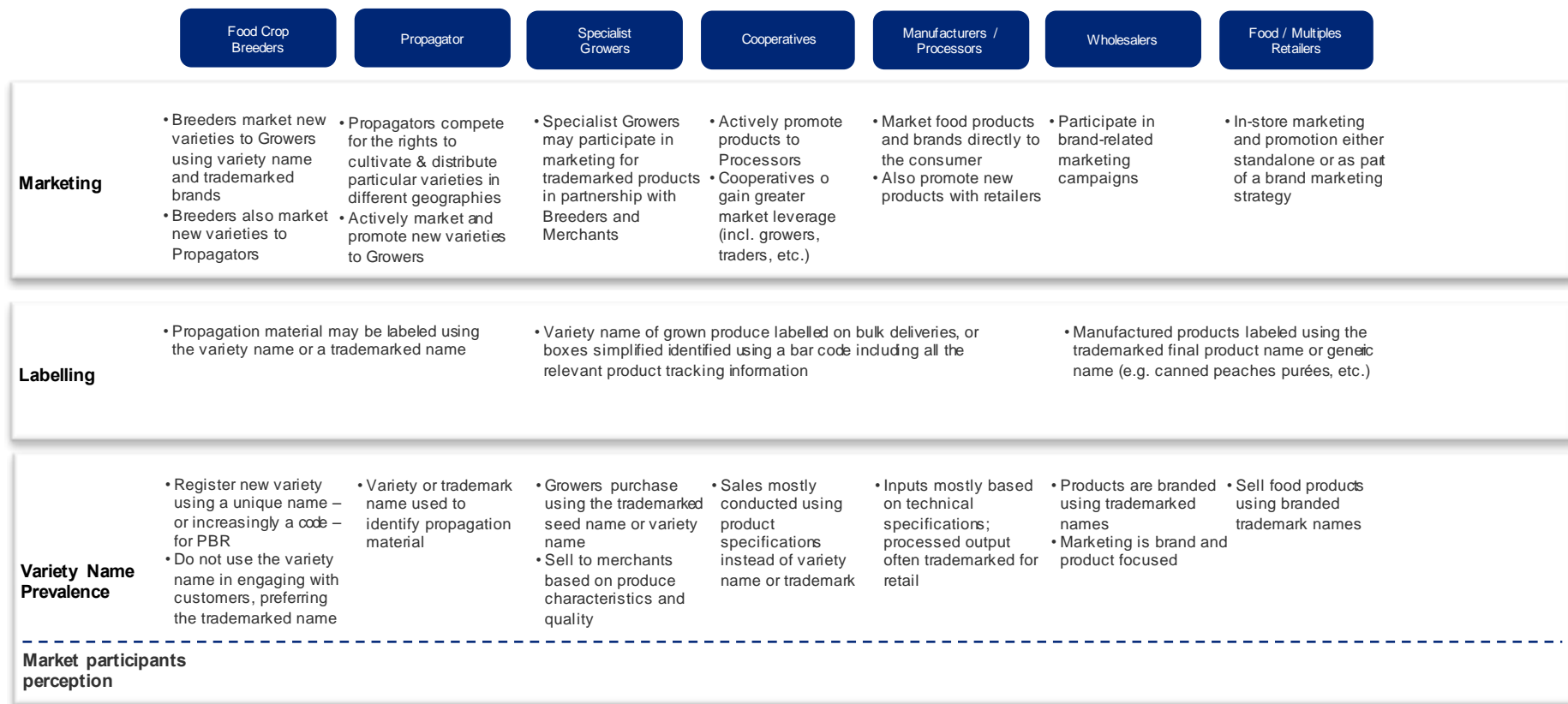


Figure 16 - Industrial Processed Fruit product development and marketing

New Variety Introduction

- Stimulation for research & development is driven by (i) Retailers and (ii) Grower's needs (yield improvement, disease resistance etc.)
- New varieties are most often developed in collaboration with the supply chain (in terms of testing and product validation) to ensure the process is focused and efficient
- Breeders and Seed Distributors will often agree a regional marketing strategy
- The new variety is usually marketed under an existing, or a new trademarked name or variety name to Growers, promoting the positive attributes i.e. downstream demand, higher yields and productivity, market price etc.
- Trademarks may also be used as a marketing vehicle to stimulate end-consumer demand to command higher revenues (e.g. Pink Lady)

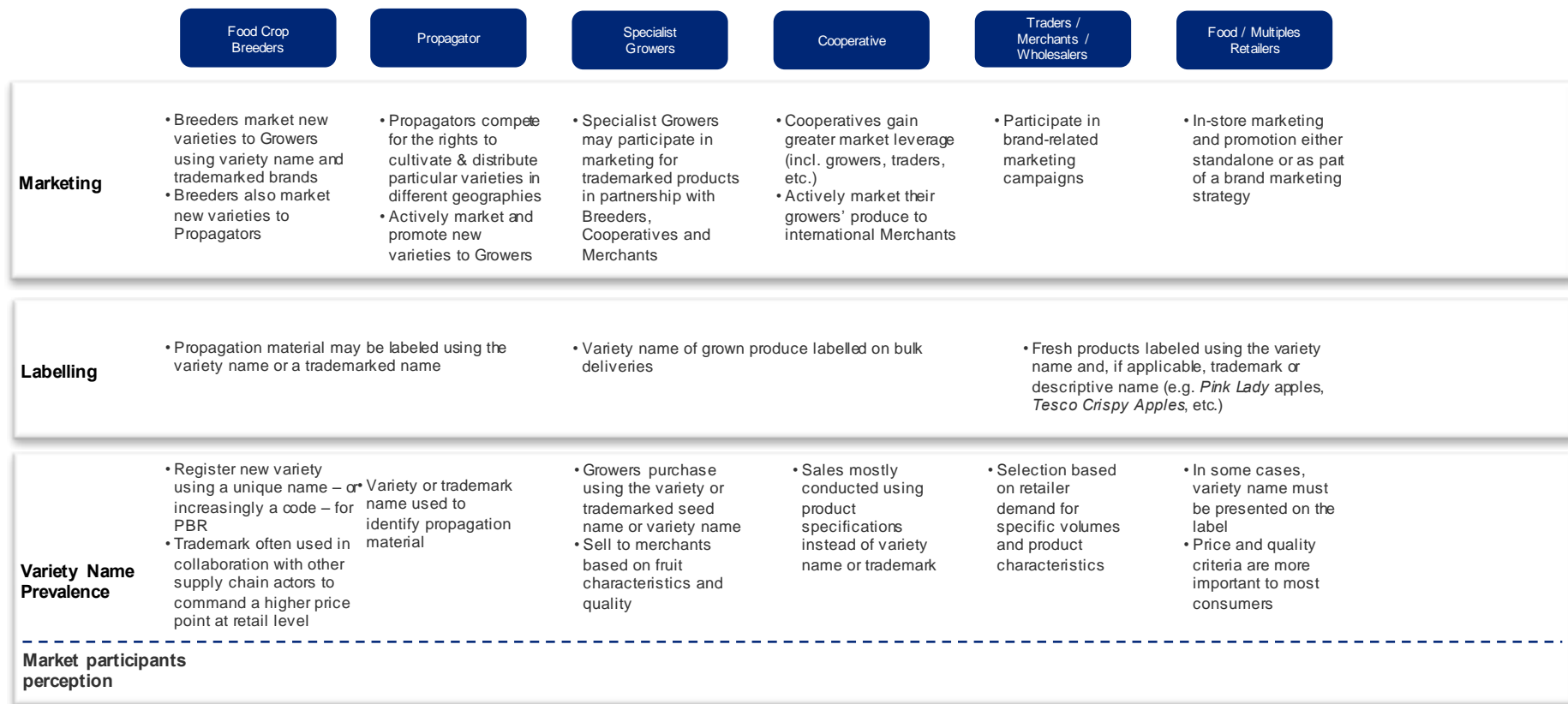


Figure 17 - Industrial Fresh Fruit product development and marketing

New Variety Introduction

- Stimulation for research & development is driven by (i) Retailers and (ii) Grower's needs (yield improvement, disease resistance etc.)
- New varieties are most often developed in collaboration with the supply chain (in terms of testing and product validation) to ensure the process is focused and efficient
- Breeders and Seed Distributors will often agree a regional marketing strategy;
- The new variety is usually marketed under an existing, or a new trademarked name or variety name to Growers and Cooperatives, promoting the positive attributes i.e. downstream demand, higher yields and productivity, market price etc.
- Trademarks may also be used as a marketing vehicle to stimulate end-consumer demand to command higher revenues (e.g. Tenderstem)

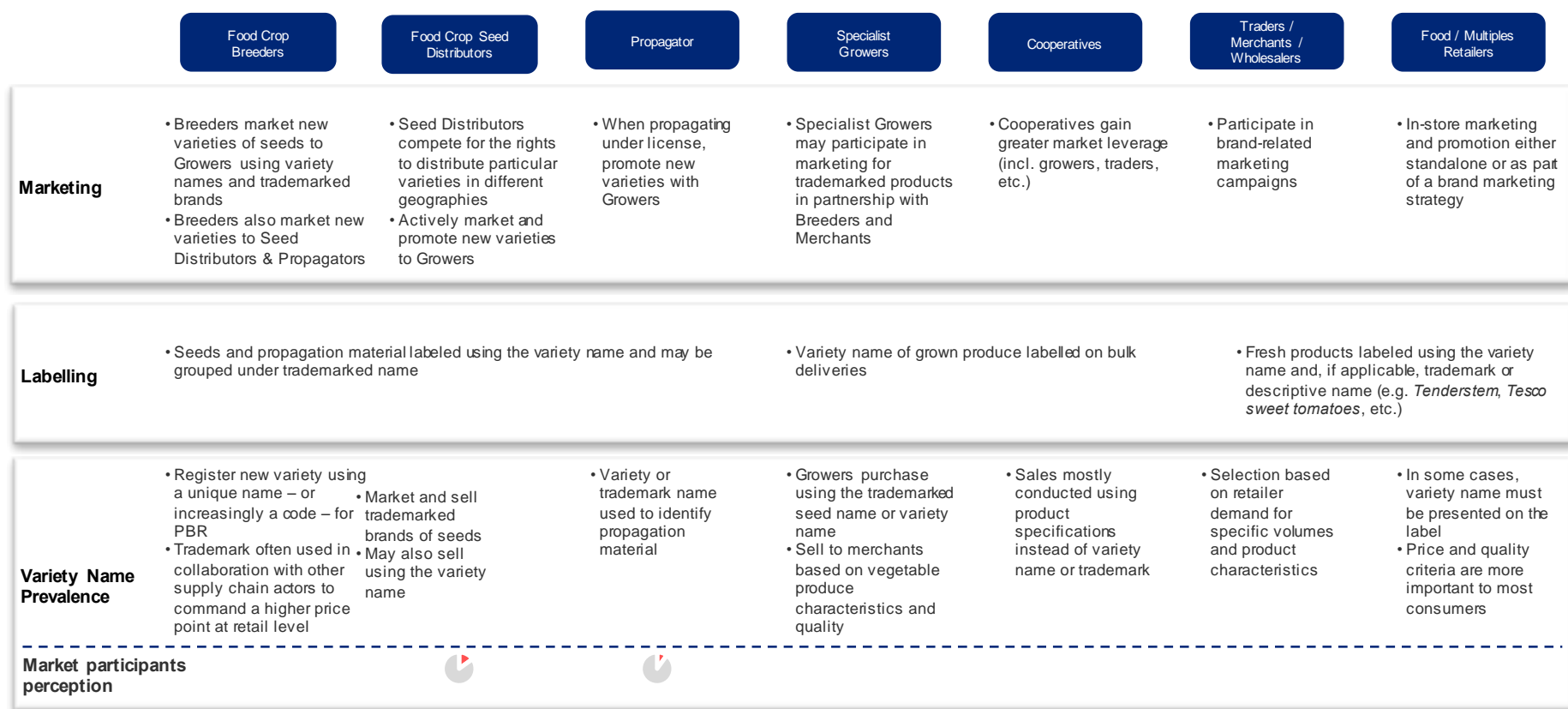


Figure 18 - Industrial Fresh Vegetables product development and marketing

New Variety Introduction

- Highly competitive market for breeders due to accelerated development timeframes (3-5 years from concept to market)
- Stimulation for research & development is largely driven by Breeder innovation, influenced by market demand
- New varieties are generally always assigned a trade marked name, which is used throughout the supply chain to market the product
- Breeders invest heavily in marketing to Propagators, Growers, Merchants and Retailers, either on their own or in partnership with other supply chain actors for specific crops and varieties

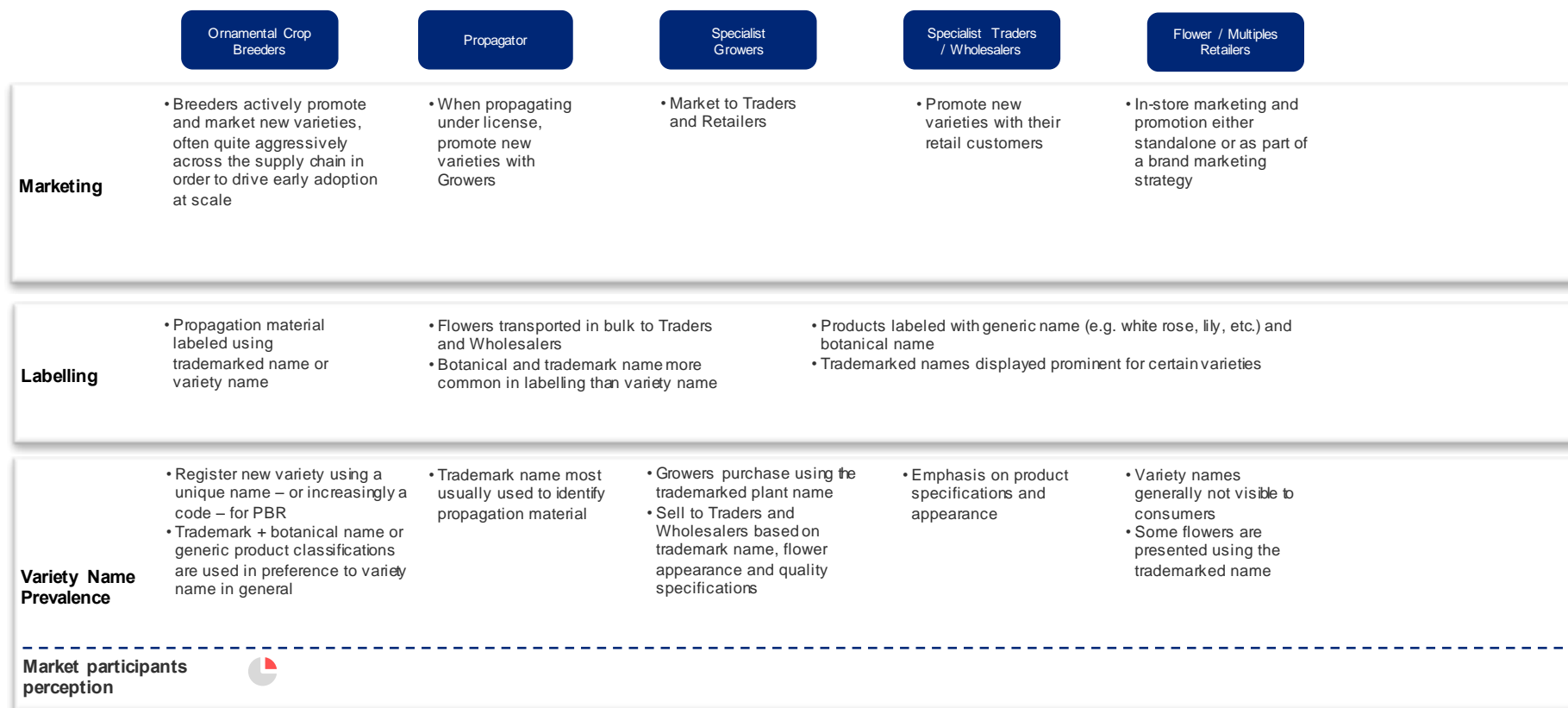


Figure 19 - Industrial Floriculture product development and marketing

New Variety Introduction

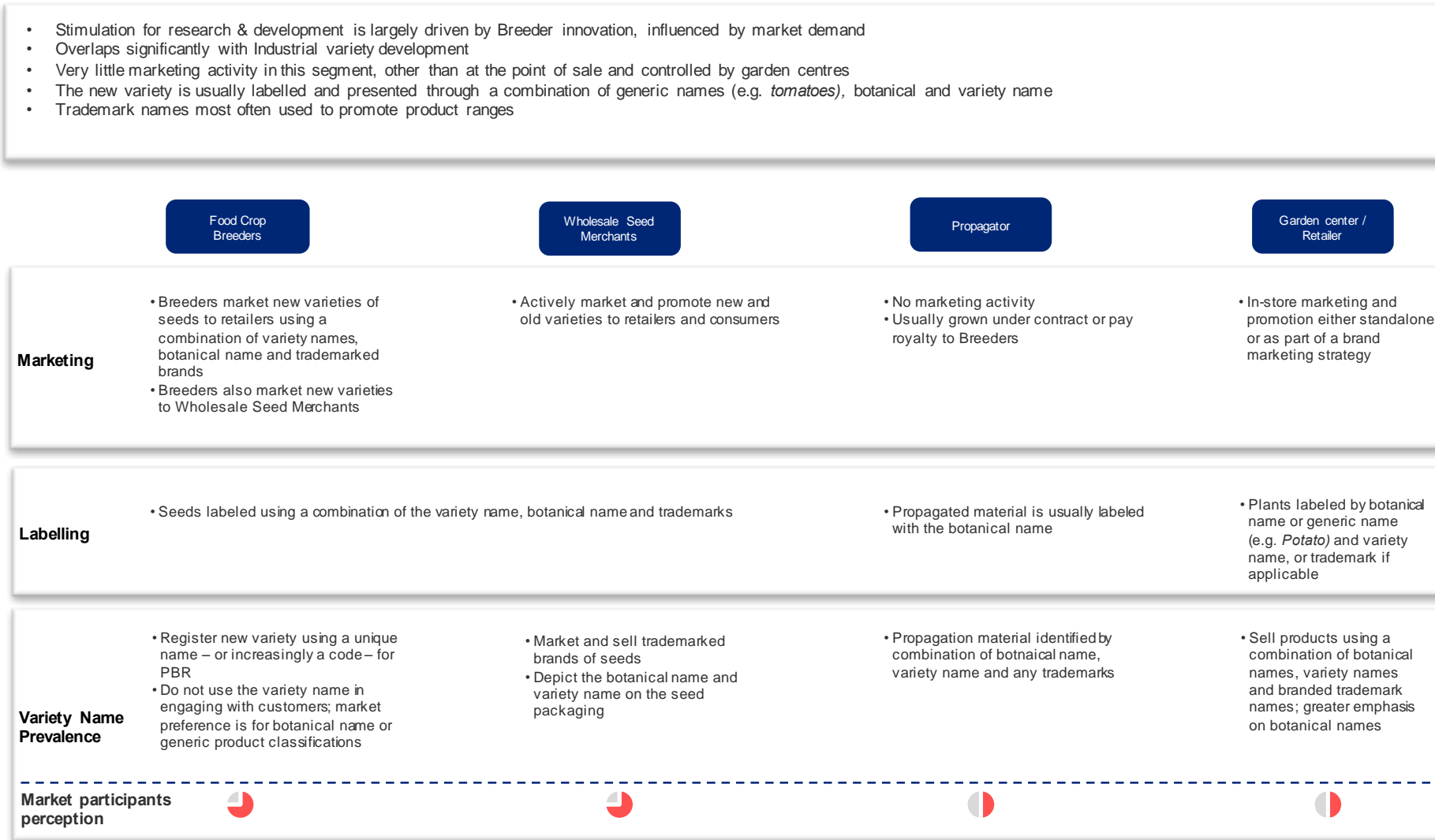


Figure 20 - Domestic Horticulture (Fruit & Vegetables) product development and marketing

- Stimulation for research & development is largely driven by Breeder innovation, influenced by market demand
- Some overlap with Industrial variety development, but more limited than fruit & vegetables segments
- Very little marketing activity, other than at the point of sale and controlled by garden centres
- The new variety is usually labelled and presented through a combination of generic names (e.g. *Lily*), botanical and variety name
- Trademark names most often used to promote product ranges

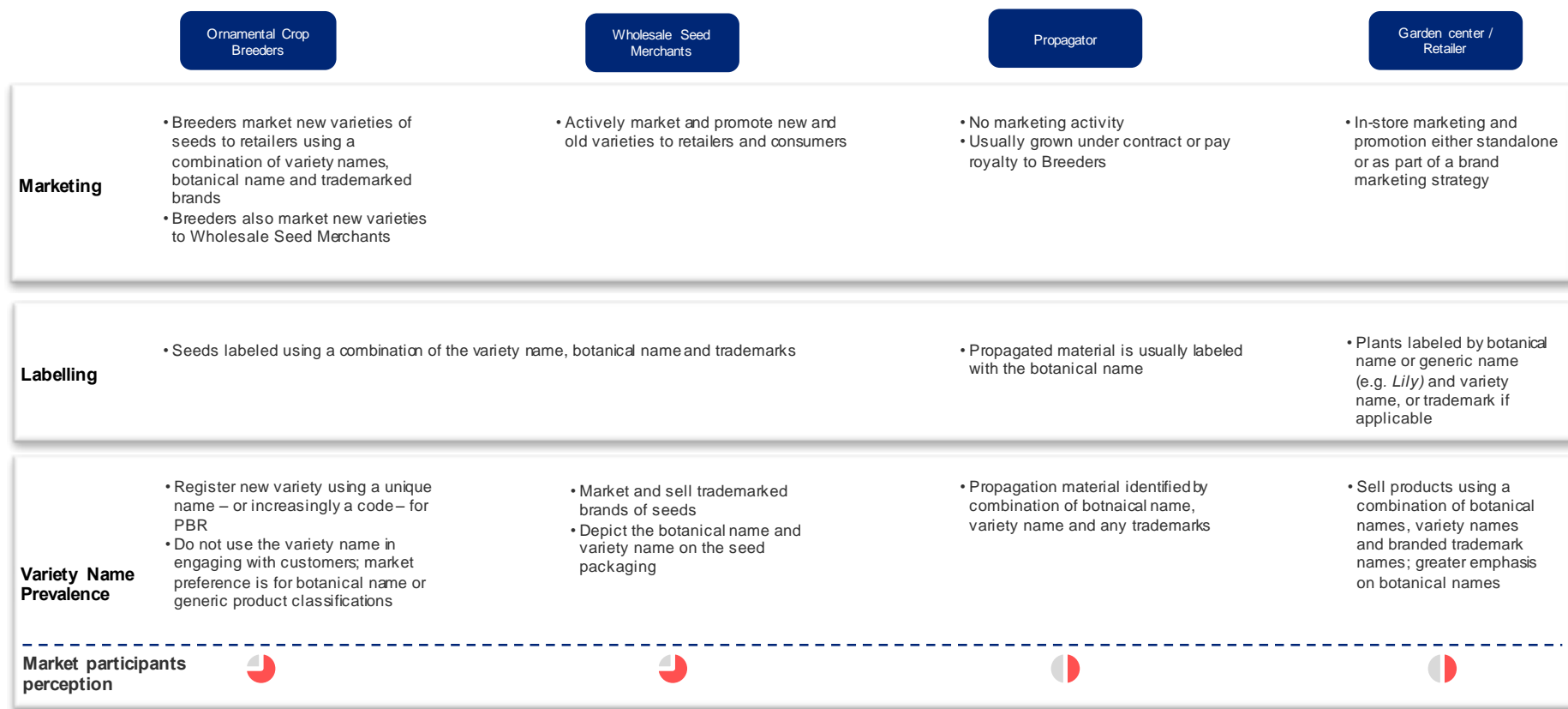


Figure 21 - Domestic Floriculture (Pot Plants and Garden Plants) product development and marketing

Q8 - How the plant variety names are used in the market?

Variety names are rarely visible to the end consumer at the point of sale. Fresh produce labelling is regulated by EU Regulation 243/2011 (European Union Marketing Standards for Fresh Horticultural Produce). This regulation specifies a standard and a specific marketing standard which apply to the following products: apples, citrus fruit, kiwi fruit, lettuces (including curled and broadleaved endives), peaches/nectarines, pears, strawberries, sweet peppers, table grapes and tomatoes. General standards apply to all other fresh produce.

Specific Quality Standards:

Stipulates that the product label should clearly display the product Quality Class, Country or Origin and the Variety or Type (product specific requirements). Variety is the plant variety name (e.g. Granny Smith) and type is descriptive – White peaches, Satsumas, Cherry Tomatoes, etc.

Requirement		Label (example wording)
Quality class	This can be either Extra Class, Class I or Class II (except for lettuces which do not have an Extra Class). The quality of the product on display must meet the requirements for that class.	Extra Class Class I Class II
Country of origin	This should be shown in full, abbreviations are not acceptable.	France, Spain
Variety (V) or Type (T)	Product: Apples (V) Citrus fruit (V) or (T) for example: Oranges (V) Soft (easy) peelers (T) Peaches/nectarines (T) Pears (V) Sweet peppers (T) (the only labelling requirement is for 'hot' sweet peppers) Table grapes (V) Tomatoes (T) (the only labelling requirement is for Cherry or Cocktail tomatoes) Kiwi fruit, lettuces or strawberries; the variety or type is not required but the quality class and country of origin are required.	Granny Smith, Gala Navel, Valencia Satsuma, Clementine White or yellow flesh Conference, Williams Hot Italia, Crimson Cherry or Cocktail

General Quality Standards: Applies to fresh products that need not be graded based on quality, but all produce must adhere to basic quality criteria, deeming the product to be 'sound, fair and marketable'. Labelling simply requires the country of origin to be displayed but nothing else (no legal requirement to display variety or type).



While labelling of the product variety is therefore required by law for specific fresh fruits and vegetables, only a small percentage of these products are presented to the consumer using the variety name as part of the product brand. Processed and manufactured food products do not mention variety names used, unless an ingredient is trademarked. Furthermore, agricultural products do not specify variety names at all.

Q9 - How are these different categories of goods branded and labelled?

For fresh fruits and vegetables, retailers accept that part of their job is to undertake the variety selection on behalf of their consumers. Products are packaged and presented, typically relating to quality categories e.g. Premium, Standard and Value and consumers make purchasing decisions based on the quality category and the price they are willing to pay. Variety name is generally not used in product branding, or in the presentation of the product to the consumer.

Distinctive varieties that are perceived to have a premium value in the market may be marketed most often using a trademarked name (i.e. rather than the variety name), in which case the name is used prominently on the packaging or the variety name may also be used.

Processed foods (grains, cereals, fruit and vegetables) are branded by the processor or manufacturer. Variety name is generally not used in the product presentation. The exception would be if an ingredient was a trademarked plant-derived product it would be identified in the ingredients list and may also be displayed prominently on the packaging as a means of premium marketing.

Cut stem flowers are often branded by the retailer, or not labeled at all. Seeds and plants destined for the horticulture market are most often branded by the plant propagator or seed wholesaler. For seeds, the variety name will most usually appear on the label, whereas for plants the generic and / or botanical name are most often used in labelling.

Q10 - What is the information given on the packaging or in advertising?

Most often, distinctive varieties of fresh produce are packaged and displayed using the trademark or variety name. Generally, advertising and marketing material are used to promote the 'product experience' rather than any technical aspects of the product.

Supermarkets will package and market products according to the quality category it is sourced for, often creating their own range names (which may or may not be trademarked). The name given may be used for a range of similar varieties (e.g. small tomatoes) to allow the retailer to sell the product line year-round.

For processed and manufactured products, the ingredients used in the finished product and any allergy information must be displayed by law. However, this is not used for any form of product promotion.

Q11 - What type of information or way of presentation is obligatory? Please determine which regulations are in place at national and EU level and their impact on the market.

As previously outlined, fresh produce is sold subject to EU Regulation 543/2011, which defines a set of marketing standards. The Regulation dictates how fresh produce must be labeled for sale to the consumer across the EU-28. Other labeling regulations also exist, but do not impact on disclosure of variety name, but rather focus on food safety e.g. (EC) 2200/96, (EC) 1580/2007, Food Information to Consumers (FIC) Regulation (EU) No 1169/2011 in December 2014.

3.4 Area: 3: Choice by the Buyer

Q12 - On which criteria does the buyer (professional / end consumer) make his choice between competing products?

Professional buyers and consumers make purchasing decisions very differently. Professional buyers make variety selections based on product attribute data and product specifications, in a highly rational and business-like way. Variety options are assessed alongside the price of the product (accounting for any breeders rights and Trademark royalties payable).

Variety names and trademarks can be used as a mechanism to assist growers to filter the options (e.g. from 200 varieties of wheat, to 5 trademarked ranges grouped by similar attribute). However, it is important to note that several experts suggest that B2B marketing using variety names or trademarked names within these segments is of limited commercial benefit.

The criteria used are different for different actors. For example, growers base decisions around crop yield (tonnage per hectare, disease resilience, condition suitability etc.) as well as product demand. Processors and manufacturers need specific attributes – sweetness, colour, flavor, hard-/softness etc. Merchants, wholesalers and retailers are driven by consumer demand, selecting for size, shape, colour, flavor, as well as aspects such as transportability, shelf-life and cropping period.

“Consumer has zero visibility on the variety name. Retailer has zero visibility. Food manufacturer does have the visibility and can use it for tracking and supply chain visibility, but generally does not care as long as it matches the product criteria it needs.”

Expert M.S.; Procurement Manager for leading processed food manufacturer

By contrast, consumers have a very little technical product knowledge, and decisions to buy based are generally more emotive and impulsive. Consumer purchases are overwhelmingly visually driven, particularly as regards packaging and presentation. Descriptions reflecting the product experience are influential (as opposed to a variety name). Presentation is perceived as a proxy for product quality, reducing the decision to one based on a perception of quality level vs. price.

Q13 - What is the importance of the variety name and / or the trademark?

For agricultural crop-derived products the variety name has very low importance. Breeders of new varieties of wheat (e.g. Monsanto and Syngenta) will often choose a recognizable denomination and market that seed under a trademarked group of similar products. However, the importance that growers and other actors down the supply chain attach to the actual names is minimal, focusing instead on the product specifications and whether it matches their selection criteria.

For processed fruit or vegetable crops the variety name also has very low importance, other than the rare instances in which a trademarked plant product name is used in the product and is promoted on the packaging. Indeed, variety name is all but invisible in processed foods, unless highlighted as a means of enhanced marketing.

For fresh fruit and vegetables, the variety name has low value. A small percentage (c.2-5%) of fresh produce is presented using a variety name or a trademarked brand name, but experts suggest that these do not work particularly effectively in terms of driving customer loyalty. In fact, generally only older varieties are more likely to be presented to the consumer using the variety name because of the already built-up consumer association.

For cut flowers, the variety name has almost zero value – consumers simply look for (e.g.) red roses, or pink lilies, or trademarked names which are pushed by the breeders. Indeed, for with regards to plants and seeds for the domestic market, the generic name (e.g.

“Plant variety name is very important for exclusive, higher cost and higher margin products for the retailer. However, most consumers do not care about the variety name – they simply want a rose that looks good. Supermarkets will specify certain variety names to suppliers for product consistency, but it is not specified on a label to the consumer.”

Expert H.D.; Horticulture supply chain specialist

Lily) and the botanical (latin) name of the variety are used rather than the variety name itself, which are arguably sold to more informed consumers.

Professional Buyers



- Rational purchasing decisions, based largely on product attribute, volume and price
- Variety name is important as a means of identifying the product
- Trademarks are often used when an upstream actor is marketing to a downstream actor (e.g. a Breeder influencing a Grower)
- They are also a mechanism to assist Growers filter the options (e.g. from 200 varieties of wheat, to 5 trademarked ranges grouped by similar attribute)
- Experts suggests that B2B marketing using variety names or trademarked names within these segments is of limited commercial benefit

Consumers



- Retailers leverage consumers' emotional and impulsive buying behaviours in order to maximise the value of each shopping trip
- Consumers shop visually, and make decisions based on the way in which a product is presented (packaging, shelf position, surrounding promotional material)
- Presenting the variety name is a means of product differentiation, or highlighting a premium product, however, this accounts for between 2-5% of the market (varies by segment)
- Trademarks are used in the same way, and both are tools used to encourage customer loyalty and repeat buying

3.5 Area 5: Famous Brands

Q16 - What plant variety brands gained reputation on the market and in which sector?

It is generally agreed by experts that there no plant variety brands as such (other than old varieties for which the breeder's rights have expired). Trademarked names are used to develop brands rather than variety names.

However, some variety names are more recognisable to consumers than others.

The research undertaken suggests that the use of product variety names by retailers was more prevalent 10-15+ years ago than it is today. This trend is detailed at the beginning of Section 3 of this report, and explains why the typical consumer of the past was better informed in terms of plant varieties, and the choice of products available was much more limited than it is today.

Whether or not a variety is highly recognisable is highly subjective, and depends upon each consumer's individual technical knowledge and experience. Generally speaking, the plant variety names that are the most recognisable tend to be old and loved varieties like Granny Smiths and Golden Delicious apples; King Edwards and Jersey Royal potatoes. Importantly, newer varieties appear to struggle to attain the same levels of variety name recognition and loyalty (and hence longevity) in the market. The Rooster potato was actively marketed by Albert Bartlet, a large scale potato farmer, investing over £3 million over 5 years. However, despite widespread recognition of the brand in the UK market in particular, it did not translate into higher sales of potatoes. The campaign was eventually dropped.

Variety names may endure for newer varieties or products that have recently become available, where there is a practical need for differentiation. For example, chili peppers need to be differentiated based on the associated level of 'heat'; mushrooms on the basis of colour, size and shape. Other varieties are well known for other reasons like grape varieties used in wine production, where the variety is perceived to be a factor in the consumers' decision to purchase (although there is little cross-over between wine grapes and desert grapes). However, in the majority of cases, the breeder's rights associated with these varieties have expired, so there is no direct benefit to the original Breeder from the consumer's association with the variety name.

The table on the following page provides a (non -exhaustive) list of well-known varieties identified by the experts interviewed during the course of this project. Importantly, this list mostly only includes fruits and vegetables as agriculture crop breeders generally use trademark names (although some smaller companies use variety names, listed below).

Experts also suggest there are no “famous” varieties of ornamentals, in the same way we think about fresh produce. The degree to which different flowering plant varieties are recognisable is highly variable and depends greatly upon any one individual’s horticultural knowledge.

Please also refer to the accompanying table which provides a more detailed assessment of consumer awareness of variety names by different product categories.

Variety	Plant Type
Skyfall	Winter wheat
Viscount	Winter wheat
Revelation	Winter wheat
King Edward	Potato
Rooster	Potato
Kerrs Pink	Potato
Jersey Royal	Potato
British Queen	Potato
Golden Wonder	Potato
Iceberg	Lettuce
Little Gem	Lettuce
Romaine	Lettuce
Salad Bowl	Lettuce
Arugula	Lettuce
Bell Pepper	Pepper
Cayenne	Pepper
Birds Eye	Pepper
Banana	Pepper
Scotch Bonnet	Pepper
White Button	Mushroom
Shitake	Mushroom
Oyster	Mushroom
Portabella	Mushroom
Granny Smith	Apple
Golden Delicious	Apple
Braeburn	Apple
Fuji	Apple
El Santa	Strawberry
Victoria	Plum
Conference	Pear
Moneymaker	Tomato
Navel	Orange
Valencia	Orange
Hass	Avocado
Cabernet Sauvignon	Grape
Chardonnay	Grape
Merlot	Grape
Pinot Noir	Grape
Sauvignon Blanc	Grape

Table 2 - List of famous plant varieties

3.6 Area 6: Filing Strategies

Q17 - What plant variety brands gained reputation on the market and in which sector?

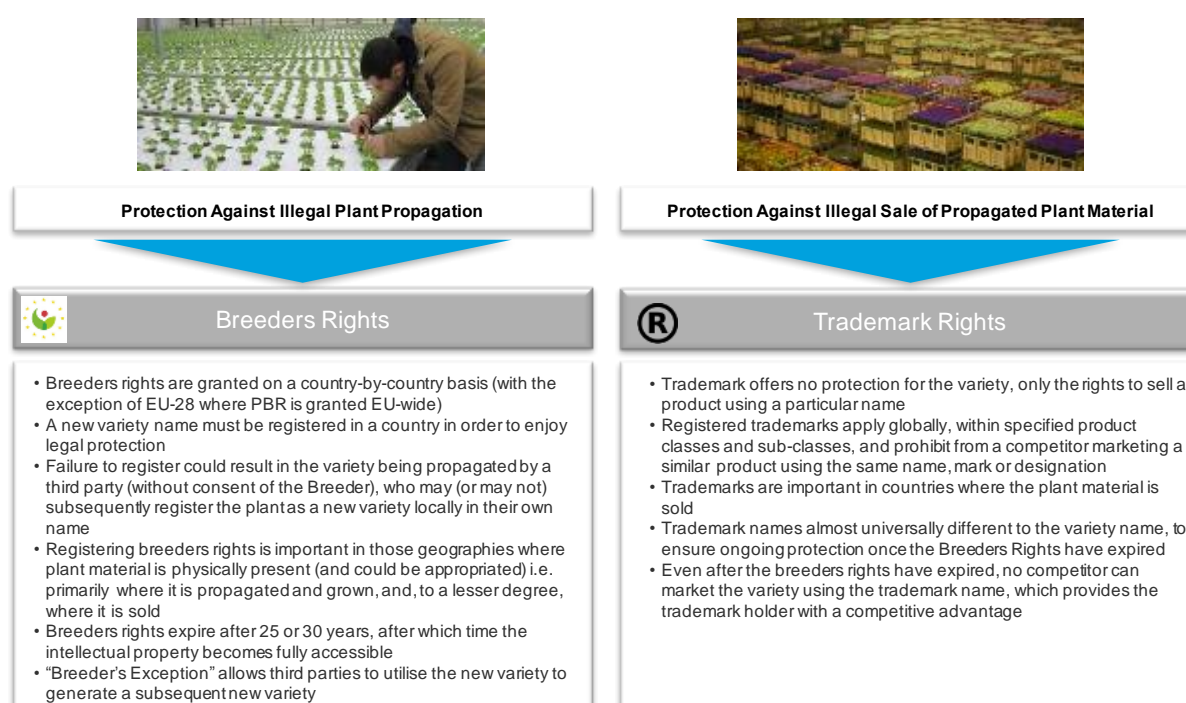
Unique plant variety denominations are granted within a specific genus, as per the International Union for the Protection of New Varieties of Plants (UPOV) classification system. By contrast, Trademarks can apply more broadly across classifications, depending upon how the rights are awarded within the trademark classification system.

In general, breeders across all segments will routinely file for breeders rights and assign a variety name – this is perceived as critical in protecting the IP of the plant variety.

In practice, a breeder's decision whether to file for breeders rights and/or a trademark depends on the competitiveness of the segment, the variety product life cycle, and the number of years a breeder has within which to make the necessary return on investment. Agricultural, Fruit and Vegetable segments, for example, have long variety development cycles (6-20+ years). However, the increasing trend in the cut flowers segment is for breeders to forego breeder's rights (which can take 3 years of trials), in favour of trademarking a name and introducing the product to market as rapidly as possible.

Variety name and Trademark protection can be used to create revenue streams for the rights holders, which results in greater degrees of control over the genetic stock, but also potentially limit the supply of product into the market. Breeders rights must be applied for individually in different countries, which protects against illegal propagation and growing. Failure to register could result in the variety being propagated by a third party (without consent of the breeder), who may (or may not) subsequently register the plant as a new variety locally in their own name. On the other hand, the trademark protects the right to sell the variety using the trade name. Trademark offers no protection for the variety, only the rights to sell a product using a particular name.

A combination of trademark rights and breeders rights are used to protect a breeder's interests in countries where the variety is propagated, grown and sold. PBR protects against third parties accessing and propagating the plant material without the consent of the breeder. Trademarks protect the product brand, and ensures that a third party cannot market and sell a related product using the same name. Refer to Figure 22 below.



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Figure 22 - Usage of Breeders Rights and Trademarks

“Flower breeders have just 3-4 years within which to get the product into the market and make their money, otherwise another breeder will bring out something that is better. Often this doesn’t allow for the 3-years of trials required to register the breed, so flower breeders increasingly elect to use trademarks instead.”

Expert A.B.; Over 40 years’ experience in commercial horticulture

Q18 - Does the applicant intend to use the trademark for all types of plants? •

A trademark name only has value if the product is to be presented (marketed, displayed and labelled) to the buyer using the trademark name, and successfully promotes brand loyalty. This applies to a very small proportion of the market – the majority of plant-derived products are either processed into a finished food product, sold as a generic product (e.g. a red cabbage) or packaged by the retailer to reflect a product quality grading (a retailer may use its own trademarks and range names in this case e.g. Tesco Finest).

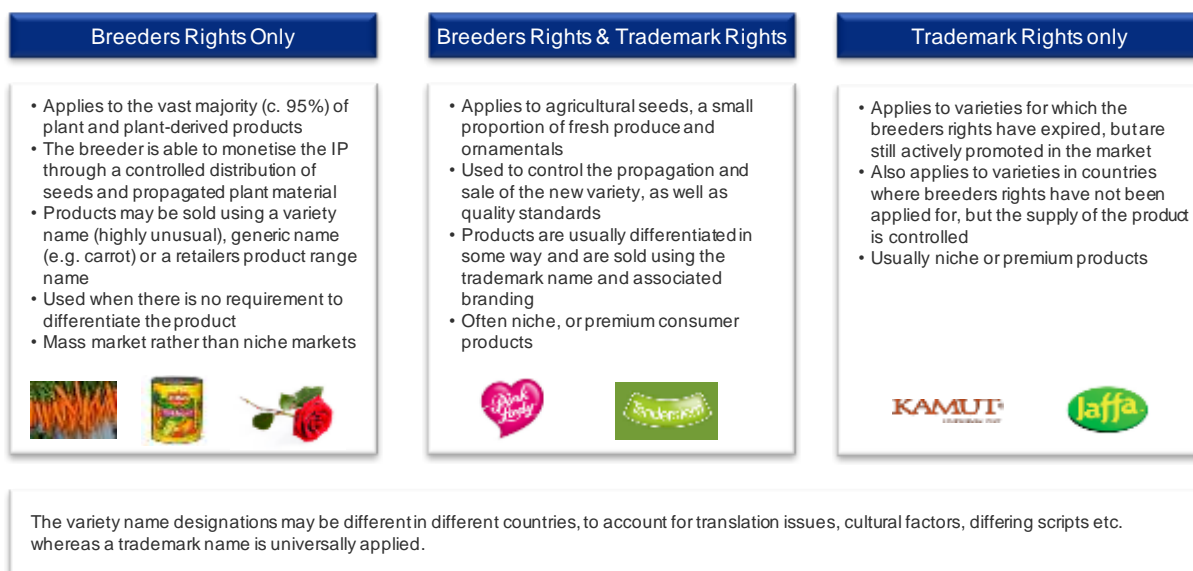


Figure 23 - Different strategies for Breeders Rights and Trademarks

“Around 50% of newly registered vegetable varieties are given a number, rather than a name. This is a trend that is increasing for two reasons; finding a catchy name that isn’t already taken is very difficult, and the variety name is becoming less important to buyers.”

Expert F.L.; Strategic Marketing Fresh Fruit and Vegetables

Q19 - Will a trademark usually be used for different plants?

Trademarks can be used to market a specific variety, but are more commonly used to market a range of different varieties with similar characteristics. In general, large retailers do not like breeder-trademarked products, as it reduces their supply chain flexibility. Trademarked names are highly important in floriculture – a breeder will often select the name under which it intends to market the flower (i.e. trademark name) before it selects a variety name. This underscores the relative importance of the trademark name over than variety name.

In general, a trademark will not be registered using the designated plant variety name, as this erodes the long term value of the trademark. As soon as the PBRs have expired the trademark no longer has any practical value as the plant variety name becomes unrestricted. As the plant variety name describes the article itself, it cannot be restricted by trademark.

- The filing strategy employed by Breeders is in response to market pressure
- The more competitive the market, the greater the commercial pressure to bring a new variety to market and generate the return on investment
- Breeders rights and trademark Rights are both used to protect a Breeders IP in different circumstances

Industry	Relative Competitiveness	Variety Development Cycle
Ornamental Crops	Highest	3-5 years
Vegetables Crops	High	6-7 years
Agriculture Crops	Moderate	6-7 years
Fruit Crops	Lowest	10-20 years

“Flower breeders have just 3-4 years within which to get the product into the market and make their money, otherwise another breeder will bring out something that is better. Often this doesn't allow for the 3-years of trials required to register the breed, so flower breeders increasingly elect to use trademarks instead.”

Expert A.B.; Over 40 years experience in commercial horticulture

Breeders Rights

- It can take up to 3 years to complete the trials process and register a new variety
- For many ornamental (particularly cut flower) breeders this poses too great a risk
- As a new product development cycle is 4-5 years on average, a breeder has 3-4 years to establish a new variety in the market, before it is over-taken by another new variety
- The rate of IP 'leakage' is relatively high – competing breeders generally know what one-another are working on
- Waiting 3 years to secure breeders rights is often too long, but important for crops with 'stickiness' in the market to protect from illegal production
- For most other industries, securing breeders rights is more of a priority
- Long variety development cycles makes it less likely that a new varieties will be out-competed during the breeders rights process

Trademark Rights

- Some flower breeders forego breeders rights in favour of a globally enforceable trademark to protect their commercial interests
- The trademarking process is much faster (months rather than years) and the breeder can begin marketing whilst the trademark is pending
- Breeders invest heavily in marketing the trademarked name to drive customer demand and in scaling production, aiming to saturate the market as quickly as possible
- Trademarks are robustly defended as they are often all that stands between the breeder making a profit or not
- Trademarks are used in other industries to market highly differentiated varieties
- However, this is predominantly a marketing tool in order to secure a premium price
- It may also be used as means of controlling supply and quality



Breeders Rights

Transactional

- Breeders pay a fee to Propagators to produce the new variety at commercial scale
- The Breeder will subsequently sell the seed or young plants to Growers in a one-off transaction



Propagator Royalty

- Breeders usually engage with seed and plant Propagators to produce the new variety at commercial scale
- This is often undertaken under license, with the Propagator paying a royalty back to the Breeder based on the number of plants sold, or tonnage of seed produced
- Any Grower may purchase the seeds or plants and grow commercially



Grower Royalty

- In some instances, Breeders may control access to the supply of the new variety, and sell a license to a restricted number of Growers
- The Grower pays for a license for the right to grow the variety, and royalty to the Breeder
- As part of the license arrangements, the Breeder will usually supply the Grower with the plant / seed stock
- The Grower pays a royalty based on either the number of hectares under cultivation or the tonnage of the crop
- Usually applies to crops that are perceived to be highly marketable due to their distinctiveness, or higher product quality



“Around 50% of newly registered vegetable varieties are given a number, rather than a name. This is a trend that is increasing for two reasons; finding a catchy name that isn't already taken is very difficult, and the variety name is becoming less important to buyers.”

Expert F.L.; Strategic Marketing Fresh Fruit and Vegetables



Trademark Rights

B2B Marketing

- Breeders may trademark certain ranges of seeds as a means of marketing to Agricultural Growers, however, this does not usually restrict how the crop is marketed downstream in the supply chain



Grower Royalty

- Breeders may register a trademark for a particular new variety, based on its perceived marketability
- Growers will usually pay a royalty to the Grower to sell the crop using the trademarked name in order to gain a premium price



Control over Supply

- Having trademarked a new variety, Breeders may engage Brand Licensors in different geographical markets to control the supply of that variety into the market. Brand Licensors often approach a breeder and request the rights
- The Brand Licensors in turn license Marketers (usually specialist merchants) who sell the trademarked product to wholesalers and retailers. The Marketers pay a license and annual royalties to the Brand Licensor, who invests a certain proportion of the revenue into marketing and pays a royalty back to the Breeder
- The Brand Licensor and licensed Marketers together agree marketing and advertising campaigns for the country / region
- They also control how the product is packaged and the way in which retailer present the product
- The rights to the trademark become highly fragmented geographically



Retailer Branding

- Large retailers may also register trademarks and apply to products and product ranges they have purchased from Growers, usually as a means of conveying different product quality
- Trademarks are specific to that retailer, and are usually applied to product ranges containing several varieties
- Retailers employ this strategy in order to offer a consistent supply as specific varieties come in and out of season in different geographies
- No royalties payments are made



3.7 Area 7: Relation Species & Similar Products

Q20 - How the market and consumers understand the concepts of related species, similar products or same type of products?

Professional actors in the supply chain are very knowledgeable about different products and varieties from the perspective of their product attributes relative to a market need.

In agriculture, growers are directed – or at the very least influenced - what to grow by merchants, processors and manufacturers, often growing crops under contract, to defined product specifications. Growers use the product specifications to select varieties that are best suited to the environmental conditions. Breeders assist the grower by using trademarks for ranges of seeds based on common characteristics or suitability in different growing conditions. Buyers of the harvested cereal grains purchase the product based on a ‘Class’ (commonly I-IV) based on product attributes. Different varieties fit into one of the four classes, also depending on how they perform on up to 10 ‘grain quality factors’. This determines how the product may be used (flour grade vs livestock feed grade) and hence the price.

For vegetable and fruit crops, most are sold to the consumer as fresh produce, increasing by large retail supermarkets. The majority of crops are grown under contract to retailers or merchants, or grown on the basis that the crop will be purchased as a commodity on the open market. The variety selection is based on the product attributes that consumers demand (based on consumer testing, focus groups etc.) – size, shape, colour, sweetness, texture etc. Retailers employ buyers as well as technical product specialists to engage in the variety selection process, and ultimately provide growers with a compliant varieties list. Technical specialists often work in-country with merchants and growers to advise on growing and product handling to maximise the high quality harvest. The retailers generally dictate product quality criteria to the merchants and growers (size, shape, blemishes etc.) and ensure growers and Merchants undertake strict quality control. The variety name itself is not important – just used to distinguish between products as professional buyers are sophisticated enough to distinguish between products with the same name.

In ornamental crops, breeders actively market to wholesalers and retailers using a variety or trademark name as a means of creating demand for a new variety. For specialist, or niche products, breeders can form formal partnerships with a small number of – or exclusively with - growers and merchants to jointly go-to-market with specific new varieties, again using trademarked names.

Because professional actors across each of the relevant supply chains have a high level of technical product knowledge any impact on duplicated naming between genera is likely to be limited. The notion of similar species to a professional, could be very precise, and much more so than for consumers.

Experts stated that having the same variety name for two plants or plant-derived products would not impact the buyer’s supply chain systems nor the decision-making process in any way. It is simply an identifying label to differentiate products. The only challenge would arise if there were two products with precisely the same name within the same category. The product category varies between retailer, but in general product categorisation is aligned to the plant genera.

Consumers have a very limited technical product knowledge, and are largely ‘ignorant’ about plant varieties, with retailers (large and small) making the variety selections on behalf of their consumers. The issue of related species from a consumer perspective, is based on how consumers buy; that is visually. If two products look similar, or share obviously similar attributes (e.g. size, shape, colour, texture) then these would be considered by consumers as related species.

In both cases, the UPOV policy of “one genus one class” appears to be well aligned to the understanding of related species by both professional buyers and consumers i.e. species within a genus are considered to be related.

Therefore, an orange and a clementine with the same name would potentially be confusing, whereas an orange and an apple sharing the same variety name would not be confusing. The retailers self-regulate this to a degree in any case, selecting suitably different names under which to sell the different products.

Q21 - Could you please explain what could be related species for, e.g. a rose variety; for an apple tree; for a tomato plant?

The overwhelming conclusion from this study is that from a food segments perspective, there is no impact on the consumer if an apple has the same name as a grape or a carrot, nor does it skew the market or impart any form of anti-competitiveness.

Introducing an apple variety name (e.g.) Pink Lady would be confusing, because there is a pre-existing Pink Lady trademark. However, CVPO would not allow such a variety designation, owing to a pre-existing, related (trademark) designation within the same class.

The greatest impact may be in the Domestic Horticulture segment, where buyers tend to be better informed in terms of the product biology, where naming duplication across products may be confusing and result in a commercial impact (either through positive or negative brand association). Refer to Figure 24 on page 52 on for details).

Q22 - What should one understand as similar or same type of products?

From a consumer perspective, in general, buyers look for 'a cabbage' or 'raspberries' or 'small red roses', and all products that meet that general criteria are perceived as the same type of product – or similar enough to be substitutable.

The same variety of product (e.g. roses) may also be presented to the consumer very differently depending on the conditions in which it has been grown and transported e.g. high vs. low altitude location, quality and consistency of the cold (supply) chain.

Products of the same genus are generally considered by consumers and professional alike to be the same, or similar, type of product, but there is little or no evidence for confusion caused by duplicated naming between genera.

CPVO has an established process for discerning whether a new variety denomination may be confused with an already established plant variety (based on UPOV classification). As a general rule, one genus = one class and variety denomination name can only be used once in each class, although there are two exceptions to this rule in cases where there are classes encompassing more than one genus or for classes within a genus.

Product Type	Segment	Market* (€)	Description
Plant-Derived Products (Uninformed Consumer)	Industrial Agriculture	€265 billion (95%)	<ul style="list-style-type: none"> • Consumers, in general, have little understanding of the variety of fruit, vegetable, cut flower or cereal they are purchasing • Variety selection is undertaken by the retailer, leaving the consumer with a more straightforward purchase decision based on quality and price • trademarked names or retailers own range names (which may or may not be trademarked) are most often used to influence the decision to purchase • Variety names – unless trademarked – are largely unimportant • Consumers perceive plants or plant-derived products of the same genus as being the same or materially similar • The same name used for products that fall into a different genus is neither confusing, nor would skew the market
	Industrial Fresh Vegetable Produce		
	Industrial Processed Vegetables		
	Industrial Fresh Fruit Produce		
	Industrial Processed Fruit		
	Industrial Floriculture		
Plants (Informed Consumer)	Domestic Horticulture	€14 billion (5%)	<ul style="list-style-type: none"> • Consumers are, in general, interested in domestic horticulture and floriculture and are more likely to seek out specific types of plants, often using the variety name • Both Trademark and Variety names are influential in the decision to purchase as is the Botanical Name • The same name used for plants of different genus may infer some common attributes
	Domestic Floriculture		

*Approximate annual market size (for comparison purposes only).

Figure 24 - Industry market sizes

Industry	Description
Agricultural Crops	<ul style="list-style-type: none"> • Growers are directed – or at least influenced - what to grow by Merchants, Processors and Manufacturers, often growing crops under contract, using product specifications • Growers use the product specifications to select varieties that are best suited to the environmental conditions • Breeders assist the Grower by using trademarks for ranges of seeds based on common characteristics or suitability in different growing conditions • Growers tend to be somewhat loyal to a specific trademarked range of seeds with which they are familiar and that have grown well in the past • Buyers of the harvested cereal grains purchase the product based on a 'Class' (commonly I-V) based on product attributes. Different varieties fit into one of the four classes, also depending on how they perform on up to 10 'grain quality factors'. This determines how the product may be used (flour grade vs livestock feed grade) and hence the price.
Vegetable Crops	<ul style="list-style-type: none"> • Most vegetable and fruit crops are sold to the consumer as fresh produce, increasing by large retail supermarkets • The majority of crops are grown under contract to Retailers or Merchants, or grown on the basis that the crop will be purchased as a commodity on the open market • Growers prefer to grow under contract as it reduces the commercial risk, however, many grow in combination • The variety selection is based on the product attributes that consumers demand (based on consumer testing, focus groups etc.) – size, shape, colour, sweetness, texture etc. • Retailers employ buyers as well as technical product specialists to engage in the variety selection process, and ultimately provide Growers with a compliant varieties list
Fruit Crops	<ul style="list-style-type: none"> • Technical specialists often work in-country with Merchants and Growers to advise on growing and product handling to maximise the high quality harvest • The retailers generally dictate product quality criteria to the Merchants and Growers (size, shape, blemishes etc.) and ensure Growers and Merchants undertake strict quality control • Purchasing and pricing negotiations are based on the crop variety produce, and associated product quality criteria • The variety name itself is not important – just used to distinguish between products • Professional buyers are sophisticated enough to distinguish between products with the same name.
Ornamental Crops	<ul style="list-style-type: none"> • For mass-market products, Breeders actively market to Wholesalers and Retailers using a variety or trademark name as a means of creating demand for a new variety • trademarked names are most often used in this context • For specialist, or niche products, Breeders can form formal partnerships with a small number of – or exclusively with - Growers and Merchants to jointly go-to-market with specific new varieties, again using trademarked names • However, professional buyers are highly knowledgeable and so any impact on duplicated naming between genus is likely to be limited

Figure 25 - Industry Characteristics

3.8 Area 8: Deceptiveness

Q23 - What may the relevant public believe if it is shown a plant variety under the name of another species of same or different genus? For instance, what may the relevant public believe if it is shown a rose branded under the generic name of an Iris?

Consumers would be confused by two plants / plant-derived products of the same genus labelled using the same name. However, it appears that plants / plant-derived products of a different genus marketed under the same name would not – in general – confuse or influence a consumer's purchasing decisions.

In general, the market consensus is that the UPOV Variety Denomination Classes (adopted by CPVO) are accepted as appropriate in defining related species.

“Things like Free Trade certificates, local provenance, organic farming methods, carbon footprint, etc. are the things that customers care more about when deciding whether to buy a fruit or vegetable.”

Expert R.H.; Sales Director for fresh food company

Q24 - What is the impact of an Iris variety name or other varieties for a trademark applied for roses?

A small number of better informed consumers may be influenced to purchase a rose plant from a range trademarked Skyfire because of a prior affinity for the Skyfire variety of iris. Equally, if the same consumer finding the Skyfire iris not to their personal liking, they would be less likely to purchase a Skyfire rose. The evidence gleaned for this project, suggests that less informed (i.e. the majority of) consumers are unlikely to make a meaningful connection between the two names.

“It is highly unlikely that a consumer will walk into a garden centre with the intention of buying a tomato plant and walk out with a strawberry plant instead; having been confused because they share the same name.”

Expert A.B.; Commercial Horticulturalist

Q25 - Does the relevant consumer necessarily consider that for instance the Skyfire® rose will have any common characteristics with the ‘Skyfire Iris’

Informed consumers may be influenced by a common name associated between plants of a different genus on the basis is common, or transferred, characteristics. However, this would require a reasonable level of technical knowledge regarding the pre-existing variety to understand what attributes would be expected in the new variety, which in increasingly uncommon in the market.

From a competitiveness perspective, the situation is also strongly influenced by whether the consumer likes or dislikes the pre-existing variety, which could potentially both positively and negatively skew the market.

“If I like a rose of a particular variety name and I see an iris of the same name, I may be more tempted to look at it, but only if I was seeking to buy an iris in the first place. However, if I decided I didn't like the Iris, I wouldn't buy it just because of the name. Likewise, if I didn't like the rose, I may well still buy the Iris if I like the variety. It really makes no difference. Both situations are likely to cancel each other out.”

Expert N.C.; Professional Horticulturalist

Q26 - How a consumer will perceive an onion branded under the name of a potato? What about the hybrids? •

Experts suggest this situation does not pose any issues from a competitiveness perspective. For example, supermarket buyers state that, in the vast majority of cases, consumers will not be made overtly aware of the variety name when making product selection. In the case of different vegetables / fruit having the same name (and the name being overtly presented to the consumer) consumers either would not notice (purchase decisions are not made on variety name) or, if they did notice, the association made with the other named product would have little or no impact on the buying decision.

The consumer buying criteria for fresh produce is based primarily on price and perception of quality on how the product is presented.

Overall, the study concludes that there are three main points of potential confusion that could arise due to overlapping variety denominations and trademarks (presented in Figure 26).

- (i) Products of the same genus may share the same variety name and trademark, in which case the CPVO already has clear regulations on how to manage this through Article 63.
- (ii) In another instance, retailers may use a high recognition trademark historically associated with one specific variety type to market other variety types to undiscerning consumers.
- (iii) In the final instance, a retailer may be selling the same variety side-by-side on the shelf, but with the trademarked variety selling for a premium vs. the generic variety. This may happen with a Pink Lady apple being sold next to a Cripps Pink variety (Pink Lady being a trademark for Cripps Pink apple varieties).

Instances (ii) and (iii) are competitive advantages resulting from investment in trademark protection and are allowable in the market. Issues relating to potentially misleading of consumers falls outside the remit of this study.

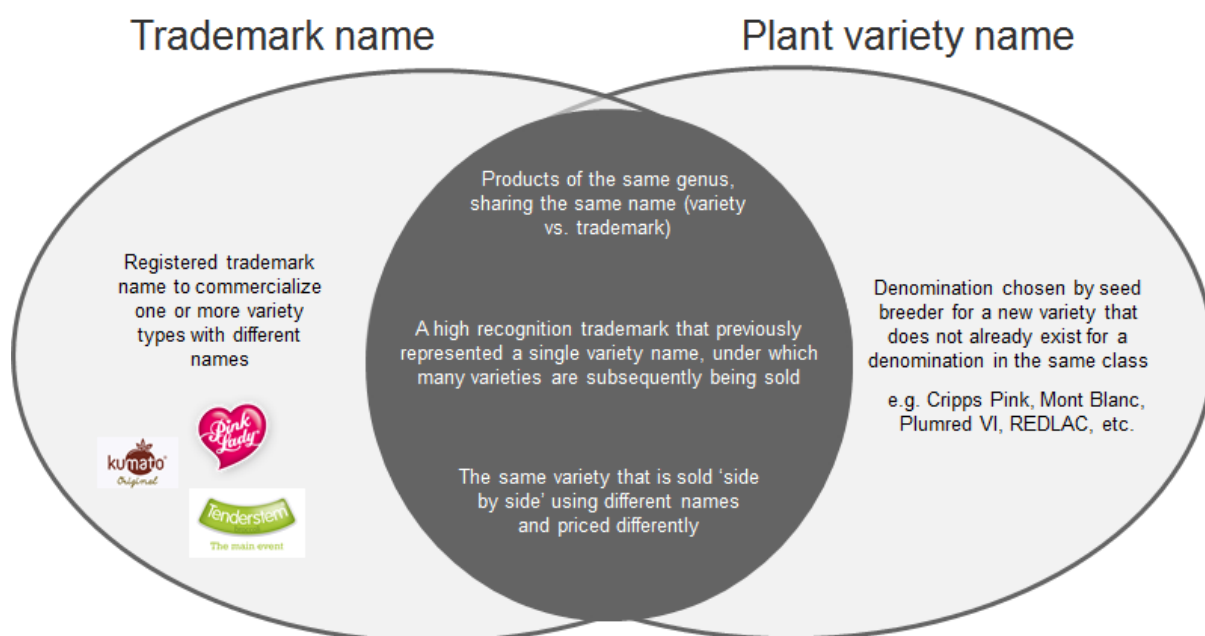


Figure 26 - 3 scenarios where trademark and variety names overlap

- Experts suggest that species of the same genus should be considered as related
- The same of materially similar naming of plant varieties within the same genus is perceived as confusing, as there is no clear means of differentiation
- Applying the same name to varieties of a different genus, however, is widely considered not to be confusing

"If I like a rose of a particular variety name and I see an iris of the same name, I may be more tempted to look at it, but only if I was seeking to buy an iris in the first place. However, if I decided I didn't like the Iris, I wouldn't buy it just because of the name. Likewise, if I didn't like the rose, I may well still buy the Iris if I like the variety. It really makes no difference. Both situations are likely to cancel each other out."

Expert N.C.; Professional Horticulturist

"It is highly unlikely that a consumer will walk into a garden centre with the intention of buying a tomato plant and walk out with a strawberry plant instead; having been confused because they share the same name."

Expert A.B.; Commercial Horticulturist

"Things like Free Trade certificates, local provenance, organic farming methods, carbon footprint, etc. are the things that customers care more about when deciding whether to buy a fruit or vegetable."

Expert R.H.; Sales Director for fresh food company

"The vast majority of fresh produce sold in supermarkets is not labeled with either a variety name or a trademark name. Many lines are not named as such (for example carrots and bananas are just carrots and bananas), otherwise the supermarket applies its own branding based on the quality grading. We would always seek to avoid any product naming confusion, but in the unlikely instance that the packaging of an apple and a cabbage carried the same name, the vast majority of shoppers would not notice. And, even if they did, it would not be confusing or affect their purchasing decisions."

Expert A.Bi.; Fresh Produce Buyer for a large supermarket

"The consumer has zero visibility on the variety name. Retailer has zero visibility. Food manufacturer does have the visibility and can use it for tracking and supply chain visibility, but generally does not care as long as it matches the criteria they need."

Expert M.S.; Procurement for leading processed food manufacturer

Figure 27 - Selected expert quotes

3.9 Area 9: Conflict of Trademark & Variety Names

Q27 - Does a registered trademark, independently of any use, block the registration of a sign as a variety name for any new variety? According to Article 63 CPVO, the CPVO may not allow registration of a plant variety name if the same or similar name is already registered as a trademark

According to experts, existing trademark legislation (updated in 2016) appears to support Article 63 CPVO, on the basis that a trademark name is previously designated in a class that also relates to the proposed new variety designation. If the trademark has limitations within (e.g.) Class 31, then CPVO informs the applicant, who can decide whether it wishes to continue with registering the name. The variety name is only refused by CPVO if the trademark owner lodges a formal objection.

The trademark rights holder may also enter into a licensing arrangement with the variety name applicant to use the trademark name within specific limitations. In addition, if a trademark has not been actively employed in the previous 5 years, it can be declared void or partially void for a particular class, or sub-class of goods.

A variety name and a trademark name may be applied and awarded under the same name designation only in the case that the applicant is the same in both cases. However, as already stated, this is not recommended by UPOV and its member organisations on the basis that once the PBRs have expired the trademark is rendered unenforceable.

Q28 - Is it common in the market to use plant varieties denomination names as trademarks or transform an earlier trademark into a plant variety denomination?

Article 17 CPVO clearly states that a variety name should not be trademarked on the basis that the variety name is the unique identifier for a newly created article, and as such should not itself be trademark-able. It also does not make commercial sense to do so. As trademarks effectively do not expire, an established and recognisable trademark name can be used to provide IP protection for the breeder following the expiration of breeder's rights by controlling market access. This cannot be achieved if the trademark name is the same as the variety name, as any third party would have the legal right to sell the plant or plant-derived product using the variety name designation on the basis that the name is intrinsic to the product itself.

It is not clear, however, whether, in law, it is theoretically allowable to trademark a registered variety name, where the breeder's rights and trademark rights holder is the same entity. However, from a competitiveness (and market) perspective, were this to occur, experts strongly suggest that the industry would lodge a challenge with CPVO on the basis that the variety name cannot be limited by trademark restrictions. In such a circumstance, experts suggest the trademark should be considered void.

There is no obvious commercial benefit in transforming an earlier trademark into a plant variety denomination, as the additional value gained would be negligible once the trademark was already established.

However, there is nothing to stop a third party registering a trademark in relation to a variety for which the breeder's rights have recently expired (assuming no pre-existing trademark relating to the sale of that variety already exists, otherwise there would be limited commercial advantage gained) and selling that product using the trademark name in direct competition with third parties selling the same variety through other channels.

EU Trademark Directive (EU) 2015/2424

“The following shall not be registered: trademarks which consist of, or reproduce in their essential elements, an earlier plant variety denomination registered in accordance with Union legislation or the national law of the Member State concerned, or international agreements to which the Union or the Member State concerned is party, providing protection for plant variety rights, and which are in respect of plant varieties of the same or closely related species.”

Article 63 CPVO

“There is an impediment for the designation of a variety denomination where:

- a) *its use in the territory of the Community is precluded by the prior right of a third party*
 - b) *it may commonly cause its users difficulties as regards recognition or reproduction*
 - c) *it is identical or may be confused with a variety denomination under which another variety of the same or of a closely related species is entered in an official register of plant varieties or under which material of another variety has been marketed in a Member or in a Member of the International Unit for the Protection of New Varieties of Plants, unless the other variety no longer remains in existence and its denomination has acquired no special significance;*
 - d) *it is identical or may be confused with other designations which are commonly used for the marketing of goods or which have to be kept free under other legislation;*
 - e) *it is liable to give offence in one of the Member States or is contrary to public policy;*
 - f) *it is liable to mislead or to cause confusion concerning the characteristics, the value or the identity of the variety, or the identity of the breeder or any other party to proceedings.”*
- Although Article 63 does not specify Trademark, trademark rights are implied by the terms “third party” and “other designations”

Article 17 CPVO

“Any person who, within the territory of the Community, offers or disposes of to others for commercial purposes variety constituents of a protected variety, or a variety covered by the provisions of Article 13(5), must use the variety denomination designated pursuant to Article 63; where it is used in writing, the variety denomination shall be readily distinguishable and clearly legible. If a trade mark, trade name or similar indication is associated with the designated denomination, this denomination must be easily recognizable as such.. ...”

- The CPVO position is that a variety name is freely accessible to all. The PBR holder may control access to the plant material, but not the name
- This applies both while the breeders rights are valid, and when they have expired

- A trademark name is often employed by Breeders to extend the effective IP protection on the basis of the built-up customer association with the name that extends beyond the PBR period

Figure 28 – Trademark and Plant Variety Directives and Regulations

3.10 Area 10: Products Derived from Plant Varieties

Q29 - How these products are marketed?

Processed food products are directly marketed to consumers in order to drive demand. Processors and manufacturers work with retailers to align product development with customer demand. However, they will also actively promote new products with retailers and engage in some shared risk marketing initiatives. Specialist wholesalers will occasionally promote new lines of fresh produce to retailers, but usually it is the retailers that are demanding products from their suppliers.

Q30 - Are they identified by using a trademark and also the plant variety denomination?

Manufacturers and processors regularly use trademarked brand names to market their products, but plant variety denomination is not used in this regard. Around 2-5% of fresh produce is marketed using a trademarked name (that is not owned by the retailer) and certain fresh produce sold in the EU is labelled with the variety name and country of origin – on the packaged (if packaged) or the shelf label is sold loose.

Q31 - Are product ingredients coming from plant varieties identified with the plant variety name in the indication of the composition of that product?

Ingredients that are trademarked are identified accordingly in the ingredients list, using the registered name and the 'R' symbol. It can also be used more overtly as part of the product branding. However, variety names are not commonly used in this way, but if a variety is well known and manufacturers believe this will enhance the product, then they may elect to use the variety name in the marketing of the manufactured product.

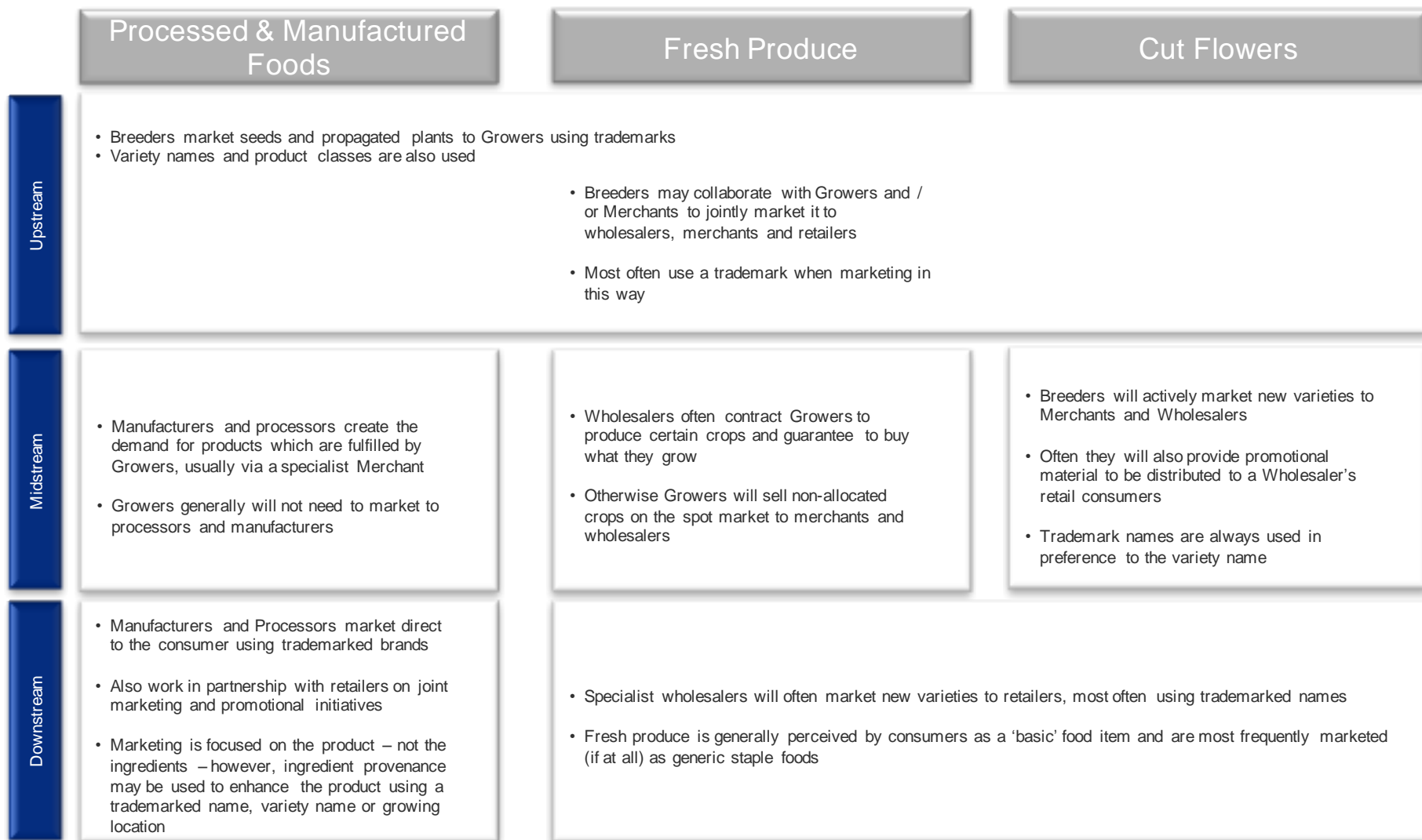


Figure 29 - Processed products summary

3.11 Area 11: Competition Aspects

Q32 - May tensions between trademarks and plant varieties generate distortions of the competition in the EU market?

There is little direct evidence found through this research to suggest that tensions between variety name and trademark name, within the existing legal framework, is in any way confusing to professional buyers or consumer, or is anti-competitive.

The following areas examples where IP may be threatened and the resolution under the existing legal frameworks (EUIPO and CPVO):

Situation	Resolution
A breeder sells an unregistered variety of (e.g.) apples using a pre-existing (CPVO) apple variety name designation	This is an infringement of the breeder's rights, regardless of whether the third party's variety is formally registered with a UPOV-affiliated organization or not. While the market is self-regulated to a large extent (e.g. supply chain actors inform each other of suspicious behavior), there are CPVO inspectors who are present at ports and points of trade to assess products for sale. Moreover, a variety that is being sold as another (more desired) variety will very likely be properly evaluated by the purchaser (e.g. retailer). <i>"To sell a fruit variety as a different variety is difficult. You couldn't guarantee that your variety will look like the variety you want to copy. Your buyers will quickly realize what you are doing. A Golden Delicious is a Golden Delicious."</i>
CPVO registered plant material is stolen from a licenced grower in a non-EU country in which it is being propagated, and where there are no breeders rights (or poor enforcement)	The breeder may use global trademark rights to reduce the potential for sale using the recognized trademark name. The breeder may also seek breeders rights in the country, if lacking, otherwise seek enforcement of the rights through the appropriate legal system. In practical terms, while this problem is not uncommon, it is considered at worst as a "headache" for breeders rather than representing a direct threat to their business. The major markets generally have a very robust and strict enforcement of breeders' rights.
Propagators commercialize variety under PBR either labelling the botanical name only or with a different variety name	This mostly happens in ornamentals where a propagator sells a variety under breeder's rights without referencing the variety name or labelling it as a different variety (see case study). This is illegal because the variety name is its "legal name" and it may not be commercialized without it being referenced. However, this is not likely to happen with fruits and vegetables because of the long propagating timeframes and discerning purchaser buying criteria.
Informal sale of PBR registered plant material, propagated domestically or on a small scale	Often difficult to find out what varieties are subject to breeders' rights and trademark rights and which are not, and who the rights holders are. Difficult for PBR or trademark holder to police at this scale but also does not greatly impact their business. However, informal policing (by organizations such as Royalty Administration International and PSPB) and market self-regulation also greatly mitigate the possibility that this illegal sale is caught.
Plant material (usually seeds) collected in one geography, introduced into another geography and registered with the local PRB authority, with little or no evidence of additional breeding, and otherwise obscuring the origins of a variety	The local PBR authority should refuse to grant breeders' rights based on consultations with CPVO (for EU markets), but the necessary checks are not always undertaken or possible in non-EU markets.

Case Study – Black beauty (*Sambucus nigra*)

Context

During a UK Ministry of Agriculture funded research and development project on accelerated propagation techniques, a new variety of *Sambucus* was discovered with commercialization potential. The Ministry of Agriculture along with a team of associated growers and propagators successfully applied for breeders' rights through CPVO as well as international patents to sell in the United States and Canada. The plant generated ~€300,000 in revenues in its first year of sales.



Issues

A few years after the flower launched commercially, the propagator became aware of a company in the Netherlands propagating and selling the flower without disclosing the variety name (labelling only disclosed the botanical name). This practice is in breach of breeders' rights. The propagator was selling the variety to markets outside of the Netherlands (the auction system in the Netherlands has a high level of due diligence against illegal selling). Around the same time, it was discovered that a propagator in Ireland was commercializing the flower with a different variety name. Both companies were breaching the law in two distinct ways: 1) Marketing the flower under a false name/not disclosing the legal name and 2) they were not paying royalties to the breeder's rights holder.

"I think that most breeders have had this done to them. It just depends how quick your response is. Word gets around, but you have to be ready for a fight sometimes. However, everyone is much more switched on to breeder's rights now; we all realize it is in our best interest to follow the rules."

Expert AB, Commercial horticulture (ornamentals) with focus on micro-propagation and sales

Resolution

The breeder's rights holder visited the offices of the Dutch company that was illegally propagating the plant. They were warned with legal action if propagation wasn't ceased; an alternative arrangement was agreed where the company would pay the royalty fees owed and continue to commercialize the flower legally.

For the Irish company, the Irish Agriculture Ministry was informed of the practice and the illegal flower soon disappeared from the market.

Q33 - May competitors use these rights in combination in order to delimit market territories or segments?

Competitors use breeder's rights and trademark rights to protect IP in different ways and in different countries, depending on the degree to which the new variety warrants protection against (i) third party propagation and (ii) third party sale of the plant material. Competitors may use geographies where breeders' rights are absent to produce the new variety (assuming they can access the initial plant stock), but they would not be permitted to sell the product using a trademarked name.

4. Annexes

4.1 Primary Research Sources

Initials	Experience	Region	Years Experience	Orn.	Agr.	Veg.	Fruit
Abi	Fresh produce and horticulture retail procurement and sourcing	EU-wide	20+	✓		✓	✓
MS	Supply chain and procurement specialist for leading food manufacturer	EU-wide	15		✓		
TR	Plant Variety rights and intellectual property consultant (former CPVO BoA member)	EU-wide	50	✓	✓	✓	✓
SH	Agricultural and Fresh Produce sales and market specialist	UK	20+			✓	✓
RH	Sales Director for leading fresh fruit company	EU-wide	25				✓
FG	Purchasing director for wheat, flours and grains at leading food processor	France/Italy	25		✓		
AMA	Seed Breeder sales and marketing director for field crops	EU-wide	30+		✓		
HD	Over 20 years in the horticultural business focusing on whole supply chain from grower to retailer	Netherlands	20+	✓			
FL	Head of Strategic Marketing at leading flower breeder; previously served as Global Product Manager in a leading vegetable seed company	Netherlands	20+	✓		✓	✓
AS	Crop consultant to agricultural growers providing advice on crop production methods and strategy	EU-wide	30		✓		
MC	R&D Manager for fruit processor or cooperative	Spain	15+				✓
AB	Commercial horticulture (ornamentals) with focus on micro-propagation and sales	EU-wide	50+	✓		✓	
AV	Lilly breeder specialist focusing on conventional breeding and various traditional and modern biotechnological methods.	Netherlands	20+	✓			
PS	Product manager at leading seed breeder	Netherlands	20	✓			
EK	Secretary General of major breeders' rights association	Netherlands	30	✓	✓	✓	✓
NC	Professional Horticulturalist and Estate Garden Manager	UK	35	✓		✓	✓

Figure 30 - Expert Profiles

Segment	Breeders, Distributors and Propagators	Growers, Cooperatives and Traders	Manufactures, Processors and Retailers
Ornamental	HD, FL, AB, AV, TR, PS, EK	HD, PS, EK	HD, Abi, PS
Agriculture	AS, TR, AMA	AS, FG	FG, MS
Vegetable	FL, AB, TR	SH, FL	ABi
Fruit	FL, TR	MC, SH, RH	MC, Abi, SH, RH

Figure 31 - Expert profiles mapped to supply chain

4.2 Secondary Research Sources

Source #	Source Description
#1	http://www.food.gov.uk/sites/default/files/multimedia/pdfs/originlabellingguid0909.pdf
#2	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/299236/EU_Marketing_Standards_A_Guide_for_Retailers.pdf
#3	http://www.food.gov.uk/sites/default/files/multimedia/pdfs/publication/countryoriginlabellingscot.pdf
#4	http://www.cpvo.europa.eu/documents/brochures/Brochure_EN.pdf
#5	http://www.upov.int/pluto/en/
#6	TAIEX Workshop on Plant Variety Protection; Variety Denominations and UPOV Plant Variety Database (PLUTO); Fumi Aihara Counsellor, UPOV; Baku, Azerbaijan May 15-16, 2013
#7	http://quno.org/sites/default/files/resources/UPOV%2Bstudy%2Bby%2BQUNO_English.pdf
#8	http://ec.europa.eu/enlargement/taix/dyn/create_speech.jsp?speechID=28218&key=028519c59b245ddc82016c0859318766
#9	https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/contentPdfs/legal_reform/regulation_20152424_en.pdf
#10	http://www.prophyta.org/Prophyta%20Annual%202016.pdf p.22
#11	http://www.plantvarietyrights.org/pvr.php
#12	http://www.upov.int/edocs/infdocs/en/upov_inf_12_4.pdf
#13	https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/contentPdfs/legal_reform/regulation_20152424_en.pdf , page 8;
#14	http://www.prophyta.org/Prophyta%20Annual%202016.pdf p.22
#15	http://www.cpvo.europa.eu/main/en/home/community-plant-variety-rights/legislation-in-force
#16	http://www.cpvo.europa.eu/documents/lex/394R2100/EN394R2100.pdf
#17	http://www.cpvo.europa.eu/documents/lex/guidelines/VD_Guidelines_EN.pdf
#18	http://www.ciopora.org/fileadmin/assets/pageDownloads/CIOPORA_Papers/Infringement/CIOPORA_Strategy_Paper_on_the_Negative_Effects_of_Infringements_of_PlantVarietyRights.pdf
#19	http://ec.europa.eu/agriculture/cereals/presentations/cereals-oilseeds/market-situation-cereals_en.pdf
#20	https://www.ibisworld.com/gosample.aspx?cid=0&rtid=1
#21	http://www.businesswire.com/news/home/20111130005119/en/Research-Markets-Fruit-Vegetables-Europe---Market
#22	http://www.freshconveniencecongress.com/resources/documents/1308561709cindyvanrijswick.pdf
#23	http://www.statista.com/statistics/253372/total-population-of-the-european-union-eu/
#24	http://ec.europa.eu/agriculture/markets-and-prices/medium-term-outlook/2015/fullrep_en.pdf
#25	http://ec.europa.eu/agriculture/fruit-and-vegetables/product-reports/flowers/market-analysis-2010_en.pdf

4.3 Glossary of Terms

Term	Definition
Supply Chain	The sequence of processes involved in the production and distribution of a commodity
Upstream [supply chain]	The processes of a supply chain located furthest from the end customer
Downstream [supply chain]	The processes of a supply chain located closest the end customer
Actor [supply chain]	An organisation that is active in one or more segments of the supply chain
Integration	The degree to which an actor in the supply chain is active in more than one individual segment
Industry	The four areas of interest as described in the SoW – Agricultural, Fruit, Vegetable and Ornamental crops
Segments	The distinctly different product groups and supply chains that together describe the industries under consideration
Distinctive Varieties	Product varieties that have unique attributes, or are sufficiently different to the majority of other varieties that they clearly stand out. These are most usually candidates for trademarking and direct marketing to the consumer (either by trademarking the variety name, or use of a different brand name)
Product Experience	Used as the primary means of marketing a product e.g. crisp, crunchy, sweet, soft, promoting the aspects of the product that differentiate it in terms that the general public will understand
Product Life Cycle	The period of time over which a product is developed, introduced to the market, adopted and ultimately superseded by a new variety
Business-to-Business (B2B)	A transaction that occurs between professional organisations i.e. does not involve the general public (i.e. the consumer)
Cold Chain	A specialised supply chain, where the temperature of the product needs to constantly maintained through refrigeration (or freezing) in order to preserve product quality and maximise shelf life
Monetisation Strategy	The means by which an actor in the value chain generates revenue from its products
Product Categories	Different generic product lines within a Segment e.g. apples, roses, bread, tinned fruit etc.
Generic Product	A plant-derived product that is sold to the consumer using only the descriptive product name e.g. pea, red rose, large banana, rather than a variety name, Latin name or trademark name
Innovation	The process of identifying the need for a new product, successfully developing it and generating a profitable return in the market
Food Product	Food processing is the transformation of raw food ingredients into marketable food products
Last Mile Distributor	The final phase of product distribution, usually to a retailer or direct to the consumer
Multiple Retailer	Large chain stores, usually selling a wide variety of goods (e.g. Supermarkets)
Industrial Segment	Segment in which professional growers produce plant-derived food and floriculture goods for sale to the general public
Domestic Segment	Segment in which the general public purchase seeds or young plants to grow at home
Plant Breeders Rights (PBR)	Rights granted to the breeder of a new variety of plant that give the breeder exclusive control over the propagating material

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4.5 Well Known Varieties

FRUIT		
category	subgroup	variety / market brand / comments
tropical	banana	better known market brands: e.g. Chiquita rather than variety types
	pineapples	
	kiwi	market known market brand: 'Zespri' from New Zealand
	avocado	well known 'Hass' 'avo', 'Duke' variety with black skin
citrus	oranges	well known variety: 'Navel'. Other: rather known by specialist: then customers (Valencia, Salustiana, Navel Late)
	soft citrus	type like Satsuma well known in the UK, (variety like 'Ditsu', 'Dvari' not known by customers) Clementines well known in CE, Spain and few other countries, other varieties
	grapefruit	customer rather known: 'Red', 'Pink', 'Yellow', 'Grapefruit', 'Not Star', 'Ruby', 'Ruby Red' etc.
	lemons	only in some country, customer can spot the difference and rather based on shopping experience: thin or thick skin. Main variety: Primafiori, Verna, Eureka
stone fruit	peaches	variety rather don't matter for customer. More important: shopping experience: e.g. taste
	nectarines	variety rather don't matter for customer. More important: shopping experience: e.g. taste
	apricots	variety rather don't matter for customer. More important: shopping experience: e.g. taste
	plums	variety rather don't matter for customer. More important: shopping experience: e.g. taste
	cherries	variety rather don't matter for customer. More important: shopping experience: e.g. taste
grapes	red grapes	limited knowledge of variety by customer: Red Globe well known in Italy and in Central Europe, Seeded variety, less known in the UK
	white grapes	limited knowledge of variety by customer: Victoria, Italia
	other grapes	limited knowledge of variety by customer: except Sultanah grapes in some countries
top fruit	apples	variety: Gala, Granny Smith, Breburn, Red Delicious, Golden Delicious, Jonagold, ...
	pears	Williams, Bate, Conference
berries	blueberries	limited knowledge of variety
	raspberries	limited knowledge of variety
	strawberries	limited knowledge of variety (Sabrosa, Victoria etc.). Better known 'Riscolli' brand, offering selected variety of berries
melons	watermelons	customers recognise type of melons: watermelons, seeded or seedless rather variety
	other melons	customers recognise type of melons: yellow, honeydew etc. rather variety
VEGETABLES		
category	subgroup	variety / market brand / comments
brassicas	broccoli	customers don't have knowledge about variety
	cauliflower	customers don't have knowledge about variety
	cabbage	customers don't have knowledge about variety
onions		customers know types of onions: e.g. Red, White (Brown), Shallot, Sweet rather than variety
tomatoes	round	customers know types of tomatoes: round, 'one the wine', beef tomatoes rather varieties
	cherries	customers know types rather variety like Victoria, Piccolo
cucumbers		customers don't have knowledge about variety
peppers		customers don't have knowledge about variety. They might know only types like 'apia'. The only exception can be 'Amiro' pepper
potatoes		customer might know some names of variety but rather buy based on usage: baking, 'nashi' etc.
lettuces	iceberg	customers recognise type: iceberg. Varieties are known only by growers / seeds companies (Ardinas, Challenge)
	cabbage	customers don't have knowledge about variety

CUT FLOWERS		
		there are plenty of types of roses and varieties. The most known types for cut flowers are Rosa hybrid. There are many varieties. The most known one in the UK is 'Valanche' as per the head and premium book. Other well known commercial varieties: 'Red Calypso', 'Grand Prix', 'Frisco'. Generally, customers make decision based on colour and size.
roses	roses	preferences.
carnations	carnations	customers don't have knowledge about variety. Customers' choice based on colour and size
tulips	tulips	customers don't have knowledge about variety. Customers' choice based on colour and size
daffodils	daffodils	customers don't have knowledge about variety.
Lilium	Lilium	two types: Asiatic and Oriental. In some country might be known Lilium Orientale 'Stargazer' and 'Sorbone'
Gerbera	Gerbera	two types: Gerbera and Gerbera inini. Customers' choice based on colour.
Chrysanthemum	Chrysanthemum	few types based on size and shape. Daisy like, decorative, pompons and buttons. Customers don't know varieties.
other		Zantedeschia, Anemone, Alstroemeria, Hyacinthus, Gladioli and others. Customers don't have knowledge about varieties
POT PLANTS		
Green Plants	Alocasia	few varieties known rather to buyers than to customers (e.g. 'Polly')
	Asplenium	customers don't know variety.
	Begonia rex	customers don't know variety.
	Calathea	customers don't know variety.
	Palms	customers might know some types like Phoenix canariensis but not variety
	Cordylone	customers don't know variety.
	Dracena	customers don't know variety.
	Diffenbachia	customers don't know variety.
	Ficus	many varieties. However, customers will know probably few types like Ficus benjamina, F. elastica, Ficus lyrata
	Hedera	customers don't know variety.
	Peperomia	customers don't know variety.
	Philodendron	customers don't know variety.
	other	
Flowering Plants	Anthurium	many varieties in general two types: Andream and Scherzerianum. Customers don't know varieties
	Begonia	customers don't know variety. Decision based on colour.
	Campanula	customers don't know variety.
	Chrysanthemum	potted and cut group.
	Cyclamen	better known types like mini (compact) rather variety
	Gerbera	customers don't know variety. Decision based on colour.
	Guzmania	customers don't know variety.
	Hibiscus	customers don't know variety. Decision based on colour.
	Hydrangea	customers don't know variety. Decision based on colour.
	Phalaenopsis	customers don't know variety. Decision based on colour.
	Azalea rhod	customers don't know variety. Decision based on colour.
	Vriesea	customers don't know variety. Decision based on colour.
	other	
Garden Plants		
Conifers	Fir	(Latin Abies) some types of variety might be known e.g. Abies concolor, Abies oreana
	Spruce	(Latin Picea) few types like Picea abies, Picea lauca, Picea morica. Popular variety: Picea glauca 'Conica'
	Larch	(Latin Larix) few types. Popular variety: Larix decidua 'Pendula'
	Pine	(Latin Pinus) many types and varieties e.g. Pinus nigra var. Maritima, Pinus silvestris 'Fastigiata', Pinus mugo 'Mugus'
	Thuja	plenty of types and varieties. Well known: Thuja smaragd, Thuja occidentalis 'Rabaut', Thuja orientalis var. 'Nana'
Deciduous	Maple	(Latin Acer) well known types with red leaves: red maple Acer palmatum variety 'Atrorubrum'
Trees	Lindens	(Latin Tilia) customers rather don't know varieties.
	Beech	(Latin Fagus) customers rather don't know varieties. Variety: Purpureum with red leaves type: Pendula 'ould be known'
Small Ornament	Hawthorn	Latin Crataegus) popular variety: Paul's Scarlet'
Shrubs	Weigelia	plenty of varieties e.g. Anthony Waterer
	buxus	few varieties. Customers rather don't know them.
	berberis	plenty of varieties
	rhododendro	plenty of types and varieties.
	roses	plenty of types and varieties.
climbing plants	Wisteria	
	Clematis	plenty of types and varieties (about 300)
	roses	plenty of varieties.
	parthenocissu	2 types. Few varieties.



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