

**THE INFLUENCE OF MERGING BRANDS ON THE BRAND  
POSITION IN THE GLOBAL OPEN-FIELD VEGETABLE SEED  
SECTOR**

by

Elzandi Oosthuizen

Student number: 213 574 98

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SUPERVISOR: DR HENRY LOTZ

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## **ABSTRACT**

The study deals with the concept of the influence of merging brands on the brand position in the global open-field vegetable seed sector. The research, more specifically, examines the market perception and awareness of the brand regarding the company versus the competitive brands. Monsanto, as a company, deals in the market as Seminis.

A tailor-made questionnaire was used as the measuring instrument. A total of 1177 respondents completed the questionnaires during interview sessions. Interviews were done by the marketing and product management teams of Monsanto as well as a consultancy firm, Market Probe. Mostly growers from the North and South America (NAFTA) and Europe, Middle East and Africa (EMEA) regions were interviewed. Data analysis was done by means of descriptive statistics.

The study concludes that in terms of top-of-mind awareness, Seminis is in a very competitive position within the NAFTA market, but trails Nunhems and Bejo in the EMEA market. While the individual Syngenta seed brands have low unaided brand awareness, Syngenta is frequently cited, on an unaided basis, as a brand of vegetable seed in both NAFTA and EMEA.

No particular brand, in either NAFTA or EMEA, seems to have distinguished itself in either a positive or negative manner over the past five years. From an overall image perspective Seminis has a strong competitive position. For the most part, on a total sample basis, there is a lack of clear brand differentiation between Seminis and its top competitors in both NAFTA and EMEA. There seems to be little risk in linking Monsanto to Seminis and, in fact, Monsanto may be a “reason to believe” if Seminis is to be positioned around a product performance or innovation theme.

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# CHAPTER 1

## NATURE AND SCOPE OF THE STUDY

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### 1.1 INTRODUCTION

The elements of marketing strategy and brand position were explored through the literature to identify the relationship between marketing strategy and brand position. In Chapter 2, we will have a closer look at the relationship between dual branding, merging brands and the brand position and customer perception.

If the company name and the product name differ from one another, it is argued that the company can create consistency of image. We will determine by investigation whether consistency is more difficult to maintain if a company makes use of dual branding and the product name and the company name is different and how the customer perceives this. *“To assess how much of an asset or liability your firm’s identity might be, you first need to know precisely what identity is”* (Bouchikhi & Kimberly, 2008:21).

According to Olins (1989:203-204), brands could be valued with regard to their potential and their actual performance. It has been argued that brand and corporate reputations can have value of this kind. In general, a brand reputation is much easier to build and create since the interaction is with a specific client base and a much more controlled environment than all the stakeholders who interact with a corporate business that interacts with a complex network of relations. Times have changed and, as a result, corporations today are measured on various factors, which include social attitudes, workforce wellbeing, and others. In the past, the most important factor was commercial achievements, exclusively.



## 1.2 BACKGROUND TO THE STUDY

Globally, the vegetable business can be divided into three different regions, namely Europe-Africa (EMEA), North America, South America and Canada (NAFTA) and ASIA. These regions are different regarding all factors influencing agricultural practices. Within these regions, sub-divisions occur mainly due to differences in weather patterns, soil potential and agricultural practices. Marketing activities of agricultural products, such as vegetable seed, are relatively complex due to practice differences on a global level, labour cost differentiation and agricultural specialisation. The route to market varies between countries. Monsanto Vegetables view agriculture as a strategic industry and market their vegetable seed under the Seminis and De Ruiter brands. The primary objective of this study was to determine how the Seminis brand is currently positioned relative to competitors within key crops in the NAFTA and EMEA regions within the open-field business. To accomplish the objective of this study, a combination of personal and telephone interviews was employed with NAFTA and EMEA growers for the listed crops and countries as specified in Table 1.1.

To be included in the study, growers were screened relative to the following criteria:

- Must be actively involved in growing vegetables;
- Must be the individual primarily responsible for the decisions concerning the vegetable seed varieties purchased for their operation;
- Must have 10 or more acres in open-field vegetable production; and
- Must not (nor any member of their business/household):
  - Work for a farm chemical manufacturer, distributor or dealer
  - Work for a vegetable seed company

- Sell vegetable seed

A total of 1 177 interviews (475 in NAFTA and 702 in EMEA) were completed for this study in 2010.

**Table 1.1: Crop per country and region included in the interviews for this study**

Region	Country	Cucumber	Tomatoes	Onions	Sweet peppers	Hot peppers	Broccoli	Melons	Lettuce	Cauliflower
NAFTA	US*		X	X	x		x	x		
	Mexico		X	X		x	x	x		
EMEA	France			X				x	x	
	UK**						x			
	Russia	x		X						
	Spain			X			x	x		
	Italy							x	x	x

\*US = United States of America

\*\*UK = United Kingdom

NAFTA = North America Free Trade Association

EMEA = Europe, Middle East and Africa

### 1.3 MONSANTO HISTORICAL OVERVIEW

#### 1.3.1 Monsanto International

Monsanto has a remarkable history. Monsanto is a biotechnology-driven agricultural company that offers growers sustainable solutions and choices and they are recognised as an industry leader. Monsanto is a leading global provider

of agricultural products and systems sold to farming concerns. Currently, Monsanto's biotechnology traits and products are being utilised in commercial agricultural businesses in all major agricultural regions on a global level (Monsanto annual report, 2009). In the past five years, the company has experienced remarkable growth. More than 12 million farmers/growers world wide have selected Monsanto's seeds and traits as part of their business practice and strategy. Hugh Grant (2009) from Monsanto believes that growers around the globe use Monsanto's innovative products to overcome the challenges associated with the reduction of risk and to ensure sustainability on their farms.

Monsanto originated in the United States of America in the St Louis, Missouri area in 1901 and manufactured an artificial sweetener named saccharin. John F Queeny was the founder and named the company after his wife, Olga Monsanto Queeny. His wife suffered from diabetes and up to then saccharin was imported from Germany. Monsanto listed in the New York Stock Exchange in 1903 and 1905 (Monsanto Yesterday, 2001).

Monsanto entered the agricultural sector in 1945 and expanded its business and product portfolio drastically. Parathion and Santobane insecticides were the first products produced to control pests such as the cotton bollworm and corn stark borer. The active ingredient in Santobane was DDT, which was widely known for the controlling of mosquitoes (Monsanto Yesterday, 2001).

During 1956, Monsanto discovered two new pre-emergent herbicides controlling grasses and broadleaf weeds. This was a very active time in the agricultural chemical industry and new products came into the marketed quite often. In 1968, Monsanto went commercial with a pre-emergent product used in corn and soybeans, called Lasso. In 1970, the decision was made to focus on herbicides and related products and to end the investments previously made in insecticide research. In the same year, Monsanto discovered a major block buster molecule

that had a dramatic impact on the global agricultural industry, called glyphosate. Glyphosate was incorporated into the Roundup herbicide and was registered and commercialised in 1976. Roundup herbicide controls all plants containing chlorophyll. Therefore, all weeds could be killed by spraying Roundup prior to planting a crop. One of the major benefits of this product is the fact that the active ingredient breaks down into harmless molecules, enabling growers to plant any crop within 24 hours of spraying the herbicide application (Monsanto Yesterday, 2001).

Another breakthrough came in 1976 when Monsanto acquired shares in a company called Genentech, which was developing biotechnology products. At that time, this type of technology was a brand new phenomenon (Monsanto Yesterday, 2001).

In 1981, Monsanto once again took the lead and decided to direct their official corporate research focus on biotechnology and communicated that the company wants to be in the leading position of this technology. A plant cell was modified biotechnologically for the first time in history in 1983 by the Monsanto scientists (Monsanto Yesterday, 2001).

The US Department of Agriculture gave its approval to field test genetically modified (GM) plants in 1987. Those were tomato plants that were tolerant to certain relevant diseases. In 1993, the US Food and Drug Administration (FDA) approved Monsanto's timely investments in dairy supplements that increase milk production in cows. This was also the first biotechnology product that reached the market place, namely Bovine somatotropin (BST). Soon after the commercialisation of BST, which was produced by means of genetic engineering techniques, they faced allegations that it was unsafe to humans and animals (Monsanto Yesterday, 2001).

During 1995, a great return on investment was experienced when the US government approved several biotechnology crops: Roundup Ready soybeans,

Newleaf insect-protected potatoes and Bollgard insect-protected cotton. Monsanto acquired several seed businesses, with well-established germ plasm material, all over the world from 1995 to 1998. Genetically-modified crops are currently not approved in the EU, but in 1998, the Monsanto Biotech product called YieldGard insect-protected corn was approved to be imported into the EU (Monsanto Yesterday, 2001).

### ***1.3.2 Monsanto Global Vegetable Business***

From 2005 to 2009, Monsanto acquired several vegetable seed companies globally. Some of these companies are Seminis Seeds, Western Seed, PoloniSemences, De Ruiters Seeds and Peotec Seeds. These seed companies had a very wide range of crops and products covered, which were decreased and narrowed down by Monsanto Vegetables to focus on six groups of products (see Table 3.1).

Produce industry dynamics make this a great time to be in the vegetable business. Monsanto offers the world's vegetable growers more than 4 000 distinct seed varieties representing more than 20 species. The Monsanto vegetable seed business serves open-field and protected culture customers through its brands: Seminis, De Ruiters Seeds and regional brands.

Seminis is the brand for open-field products and, through its legacy, seed brands represent more than 600 years of vegetable breeding and development. Seminis offers a complete portfolio representing crops such as illustrated in Table 1.2 De Ruiters Seeds has, since 1945, been the brand for hybrid vegetable seeds for the top products of tomato, cucumber, aborigine, pepper and rootstock. De Ruiters Seeds' brand is well recognised and well respected all over the globe in the the fastest growing segment in the market.

**Table 1.2: Monsanto's vegetable seed crops**

Family	Crops
Solanaceous	Tomato, rootstock, pepper and eggplant
Cucurbits	Squash, cucumber, melon, watermelon, pumpkin
Root and bulb	Onion, carrot, leek
Large seed	Sweet corn, garden bean, dry bean, pea
Brassica	Broccoli, cauliflower, cabbage, Chinese cabbage, radish
Leafy	Lettuce, spinach, fennel

Research is at the heart of Monsanto and its future. The company invests more than US\$180 million annually towards research to improve vegetable varieties. With more than 50 research stations in 17 countries, its global presence helps researchers discover new varieties that meet the needs of all the consumers and growers and are well adapted to the regional requirements. Sales activities take place in more than 160 countries. These include 22 crops and a portfolio of 3 000 varieties.

#### **1.4 PROBLEM STATEMENT**

Since Monsanto Vegetable Seed consists of various different brands that were acquired over time, there is a possibility that corporate identity confusion may exist between Monsanto Vegetable (MONVeg) and any of the other acquired brands. For the purpose of this study, will focus on the open-field vegetable industry and will therefore focus on MONVeg and Seminis brands. Appendix A

indicates the various brand identities that exist in the Monsanto global structure today.

The Monsanto global agriculture business and brand, which already have a strong identity together with the consolidation of several different vegetable brands, could have had a transforming effect on the corporate identity of the well-established Seminis and the relatively new MONVeg brands.

The combination of the established brand Seminis and the overall MONVeg brand may have created the need to revisit the corporate image of Monsanto in the global vegetable business. The question that needs to be answered is whether the market and customers relate and identify the variety choice with the brand and the brand position of the variety performance.

Competition exists in all the different regions and the top competitive brands in the global industry are: Seminis, Rogers/S&G, Harris Moran, Nunhems and Bejo.

## **1.5 RESEARCH OBJECTIVES**

This study aims to establish a consistency of image when the company name is different from the brand name (dual branding). More specifically, the study is aimed to determine the brand position and customer perceptions and familiarity of the different vegetable seed brands in the global vegetable seed industry.

### ***Primary***

The primary objective of this research was to determine how the Seminis brand is currently positioned relative to competitors within key crops in the vegetable seed industry in the NAFTA and EMEA regions.

### ***Secondary***

1. The first secondary objective is to determine the brand awareness of the different vegetable seed companies that customers experience and to determine if any specific brand has distinguished itself in the mind of the customer.
2. The second secondary objective is to determine how familiar the customers are with the Seminis brand.

## **1.6 RESEARCH PROPOSITIONS**

The research propositions for this study are:

P<sub>0</sub>:

Customers view Monsanto's ownership of the Seminis brand positively and the brand is one of the top two brands in the industry.

P<sub>A</sub>:

Customers view Monsanto's ownership of the Seminis brand negatively and the brand is not part of the top two brands in the industry.

P<sub>1.1</sub>:

There are specific vegetable seed brands that have distinguished themselves in the mind of the customer.

P<sub>1.2</sub>:

None of the vegetable seed brands have distinguished themselves in the mind of the customer.

P<sub>2.1</sub>:

Customers are familiar with the Seminis brand.



P<sub>2.2</sub>:

Customers are not familiar with the Seminis brand.

## **1.7 RESEARCH METHODOLOGY**

This study was conducted in two phases. The first phase focused on the literature review and the second phase focused on the empirical research.

### ***Literature review***

The literature review for this study focused on all the aspects of brand position.

More specifically:

- The definition of brand position and determining the factors influencing brand position.
- The innovation of a brand. Typology of brand position and innovation effort.
- Determine which factors influence and drive value-orientated brand positioning.
- Finally, the literature review focused on the industry within which the study was conducted, namely the broad vegetable agricultural open-field business.

### ***Empirical research***

The research data was collected by means of personal, face-to-face, interviews performed by Market Probe personnel and Monsanto employees in St Louis, Missouri. The data were collected over a six-month period in 2010. A total of 1 177 interviews (475 in NAFTA and 702 in EMEA) were completed. A copy of the questionnaire is attached (Appendix B). The data were analysed by means of the percentage of replies in the different categories.

## **1.8 LIMITATIONS OF THE STUDY**

Growers in different countries seem to be more familiar with some of the brands and do not necessarily have experience and knowledge on all the brands included in the questionnaire. Furthermore, is it difficult to obtain global trends and perspectives, since growers are very much locally focused and answer questions from a local point of view.

## **1.9 CHAPTER OUTLINE**

This research document is structured as follows:

Empirical Chapter: Company background

A summary overview of the company's history is included as well as the global background of Monsanto.

Chapter 1: Nature and scope of the study

Chapter 1 covers the background of the study. It also includes the aims, objectives, defining concepts, assumptions, limitations, value of the research and the research methodology.

Chapter 2: Literature review

This chapter consists of a literature study concerning brand position, factors that influence brand position and industry status.

Chapter 3: Research methodology and results

Chapter 3 explains the methodology used in the research and will cover the research design, research procedure and the research results. A market research agent was involved, namely Market Probe in St Louis, Missouri.

#### Chapter 4: Conclusions and recommendations

In Chapter 4, we make conclusions pertaining to the results obtained from the study and we will provide recommendations concerning the prioritisation of critical perceptions of views in the currently global customer base that need to be addressed. Furthermore, direction and guidance will be included to specify actions the company needs to follow to improve the ideal corporate identity when the corporate name differs from the brand name. The effectiveness of dual branding in the agricultural sector is discussed concerning the marketing strategy. This chapter reports on the acceptance or rejection of the research propositions, highlights a problem encountered during the research and concludes the research by means of a summary. Additional material relevant to the research, such as the measuring instrument and others, are attached as appendices at the end of the research report.

### **1.10 SUMMARY**

Chapter 1 serves as an introduction to the research project; to enlighten the reader pertaining to the idea that corporate identity is an element of marketing strategy and to specify the focus of the research. The chapter also poses the research propositions and objectives, while also highlighting the research methodology followed in this study.

The next chapter (Chapter 2) deals with the literature review, brand position, dual branding, corporate identity, corporate branding and the relationships between them.

# CHAPTER 2

## LITERATURE REVIEW

---

### 2.1 INTRODUCTION

A literature study has been conducted to determine the factors that influence brand position and customer perception in general and within the global vegetable agricultural industry. The primary objective was to determine how the Seminis brand is currently positioned relative to competitors within key vegetable crops in the vegetable seed industry in the NAFTA and EMEA regions. This chapter will explore relevant literature on the relationship between brand positions, customer perception and marketing strategy.

### 2.2 CORPORATE BRANDING

#### ***2.2.1 What is a brand?***

Branding is the action whereby a personal sign is placed on something such as livestock. A brand is a living identity. It should motivate people to be their best internally, and inspire confidence and satisfaction in the external audience. Different key strategic tools are used in different ways. Branding is used to create reputation, awareness and to build organisational image. Olins (1989:115-116) was convinced that branding is the most powerful way to promote a product. A brand is created to appeal to a specific targeted group of people at a specific time, which also leads to the greatest strength of a brand. The ultimate outcome of branding will be the personalisation of the consumer with the brand. A brand can be loaded with powerful, complex, highly charged and immediate symbolism that is directed at a specific market place.

A brand is more than a name for a given product. According to Kotler and Armstrong (2006:585), a brand is a name, word, picture, term, symbol, sign, device, design, or a combination of these, to create a unique identity for particular products. A brand creates identification between a product and the seller and enables differentiation from the competitor's products. Chevalier and Mazzalovo (2004:15) concluded that a consumer chooses a brand due to specific qualities it offers and that the differentiation created by the brand is part of the contract between two parties. The essential values of the company, its identity and the perceptions that the customers have of the company and its image are presented by the name and the logo of the product. Branding is the marketing of the corporate identity and the creative part of the specific product image. Wood (2000:662) established that brand can perform various different functions.

Corporate branding is the total corporate ethos and experience summarised in the company's reputation and specifically aimed at a selected audience (Gregory & Hickman, 1997:11). A special relationship with target audiences could be built by closely linking the name with the corporate brand and providing evidence of the linkage. The name should contain favourable attributes such as quality, value, innovation, credibility, integrity, good management, environmental sustainability and community awareness. If a company distinguishes itself in this way, it could change behaviour towards the company. Corporate branding could be the tie-breaker between competitive companies that motivate people to invest in the corporation, buy its products, recommend it to others, or seek employment, at the company.

- **Identity**

A brand name can guide consumers when making a choice.

- **Practicality**

The brand name summarises characteristics and ensures retention of this information of the product by association between brand name and characteristics.

- **Guarantee**

The brand name decreases the sense of risk and uncertainty within the consumer by serving as the signature of the provider.

- **Personalisation**

Personalisation enables the consumer to express and experience individuality and originality through their purchase.

- **Entertainment**

Exercise of choice is enabled by the brand, thereby providing consumers satisfaction of their need for novelty.

### ***2.2.2 Brand Identity***

Borgerson, Schroeder, Magnusson and Magnusson (2009:209) stated that corporate identity is embedded in an organisation's distinctive attributes and core values. Each and every aspect of an organisation should reveal and operate by the values claimed in a particular corporate identity. Brand identity is the message that the brand brings to the consumer, clarifying the real message and preventing miss-interpretation. Brand identity is defined as the capacity of a brand to be recognised as unique, over a period of time, without confusion, which is due to the elements that individualise the brand identity. Often, confusion between brand image and brand identity exists. The image corresponds with the perceptions induced in the different consumers who make up the market segments, which is naturally receptive. The identity is the substance of the brand, expressed via all the methods of communication used by the brand. It is naturally emissive. Although the brand identity contributes to the direction in the strategy of communication, it could be influenced by decisions made by other functions.

Balmer (2001:280) introduced a conceptual framework of business identity in which:

- Corporate identity maps corporate ethos – core attributes, strategy and values;
- Organisational identity “reflects the mix of employees’” values that are expressed in terms of their affinities to corporate, professional, national and other identities (Balmer, 2001:280); and
- Visual identity consists of visual cues and corporate communications about corporate identity.

Differentiation between “*brand identity*” and the “*corporate identity*” is clear. A brand is a holistic creation that is devised solely to help sell and has no life of its own and the brand identity is aimed at one audience – the final consumer. On the other hand, company identity is aimed at many audiences, such as the final consumer, the trade, competitors, suppliers, local government, national government, trade associations, trade unions, the financial community, consumer associations, journalists and its own employees of various kinds of different places. Or the final consumer, the trade, competitors. The brand identity only looks outside to its audience of consumers; the identity of the company, the corporate identity, looks both inside and outside at a wide spectrum of audiences with different views of attitudes and interest in the company (Olins, 1978:121).

### **2.2.3 Brand loyalty**

Brand loyalty leads to a long-term relationship with a consumer and occurs when a consumer shows loyalty to certain brands. The perceived benefit in a consumer’s mind created by maintaining a relationship with a brand, the product or provider combination, leads to purchase repetition (Varey, 2002:153). This perception could be the result of many different factors – good product quality, proven usefulness and effective marketing communications are some of the most important factors. Brand insistence is the ultimate achievement from a marketing point of view. This is when the consumer insists on a specific brand and refuses to settle for any of the competitive brands. Brand insistence leads to product

specialty value in consumer perception. In such instances, the competition will experience a great challenge to grow market share in the market.

Factors that keep consumers loyal to a brand:

- Provision of high quality;
- Consistent performance;
- Familiarity;
- Offer good value/price;
- Compatibility with personalities; and/or
- Solution of problems.

#### ***2.2.4 Brand preference***

Brand preference can be described as the brand that consumers or buyers prefer to other competing brands in a straightforward relationship between buyer and seller. According to Bouchikhi and Kimberly (2008:21), the identity of a company that produces, supports and maintains a product or service is becoming more important than the intrinsic attributes of that product or service. Corporate branding enables the leaders of a company to utilise the company's identity as a competitive weapon.

### **2.3 BRAND POSITIONING**

#### ***2.3.1 Brand positioning***

According to Walker, Boyd and Larreche (1992:207), brand positioning refers to the relevant position of a brand and the differentiation mark in comparison to those of the competition. Brand positioning refers to the consumers' association of the product segment that the brand is known for and differentiates the brand from the competition.



Positioning is a useful concept because it reminds us that a product is not worth much unless the product quality is clearly established in the minds of the target market, and even more so with regard to products that are positioned in a highly competitive market place (Hooley & Saunders, 1993:169). Segmentation and positioning are closely related. Segmentation refers to homogeneous groups of potential consumers and positioning refers to the perception of these homogeneous groups with regard to one brand in comparison with another. Both concepts represent a process of differentiation. Although positioning is a measurement for differentiation, a concept like identity is still needed because positioning is a reflection of the product, rather than the brand as a whole (Kapferer, 1992:36).

Marketers have to position their brands in such a way that they target the customers' minds. Dibb and Simkin (2001:251) identified positioning as one of the key essentials of marketing. Each company decides on a product concept that they want to create in the consumers' minds, and these activities result in product positioning. It is the process of the creation of the product image. Kotler and Armstrong (2006:232) believed that a brand's position could be strengthened by associating the brand with the desirable benefits, such as strong beliefs and values. The brand is the company's commitment to deliver features, benefits, services and experience to the buyer of the products. In the case of this study, where one company deals with various brands and names, the challenge to create and maintain the preferred message in the consumers' minds increases. The brand strength indicates the strength of a company and its financial value. Strong brands provide higher profit margins and better access to distribution channels as well as a broad platform for product extensions. It has been proven that brands can directly influence the sustainability of the business and its growth as well as creating shareholders' value.

### **2.3.2 Where does the brand exist?**

Till and Heckler (2009:102) explained that brand managers are tasked to create experiences that can solidify the message of the brand and position the brand in the consumer's mind. It is important to realise that brand managers do not own or control their brand's positioning; they can influence it by making the right decisions in the creation of the total experience and exceptional consistent messaging. By coordinating the experiential factors, the brand managers can influence the consumers' minds by means of clarity surrounding the brand's position. On the other hand, it is essential that the product or service performs in such a way that it confirms the message being delivered by the brand. The destruction of a brand's position in a consumer's mind is fatal if the product does not perform in line with the brand's promise.

The brand exists in the mind of a consumer. Firstly, a brand needs to establish a foothold in the consumer's brain, which implies that the brand needs to be lodged somewhere in the brain. Secondly, the creation of meaningful associations, such as images and facts around the brand, comes into action. These associations can be created effectively by applying basic principles of cognitive psychology and learning (Till & Heckler, 2009:103):

- Keep the message simple; and
- Be consistent over time.

### **2.3.3 Influence of brand position**

Good brand positioning is enduring. The positioning of a brand is also one of the most important decisions of the branding process. Consumers need to experience the primary association built around your brand and fully know and understand the central meaning of the brand. Since brand positioning establishes the difference between the brand and the competitive brands and communicates this message to the target market, it is the primary point of connecting the brand

with the target audience. Consistent communication is essential during this process (Till & Heckler, 2009:134).

Although good brand positioning can ensure longevity, the brand must deliver on the positioning in order to be credible. The positioning should have longevity, but the tagline can change over time. The slogan or tagline is the creative reflection of the positioning, while the positioning represents the concept of the brand.

#### **2.3.4 Taglines**

A tagline is the vehicle that instantly creates meaning and understanding around a brand. Powerful taglines are recognised by embodiment of three characteristics, referred to as the three Ms. These should be:

- Meaningful;
- Motivating; and
- Memorable (Till & Heckler, 2009:155).

If the tagline is meaningful, it will address the factors that are meaningful in the perception of the target audience. It will explain the reason for caring for the target audience and, on the other hand, if the tagline is not meaningful, it will not draw the target audience forward during the buying decision. A meaningful message should be the link between the brand and the consumer. It should deliver in two ways – something about the brand and something about the consumer. The meaningfulness of a tagline is greatly improved if the personal message and the product message could be incorporated into one tagline.

A meaningful tagline is not enough – it also has to be motivating. This motivating experience will encourage the target audience to act on the favourable purchase decision. The tagline needs to stimulate the target audience to take action. Furthermore, the tagline has to motivate the consumer to experience the brand as important and, ultimately, include the brand as part of their lives.

The more memorable the tagline is the longer lasting the return on investment will be. A meaningful and motivating tagline that is easily forgotten will not positively influence sales figures. A memorable tagline will stay with the target audience and will be instantly in mind when a need has to be answered and the purchase decision has to be made (Till & Heckler, 2009:155).

## **2.4 FIVE FACTORS OF BRAND POSITIONING**

### **2.4.1 Brand attributes**

Brand attributes are the actual features and benefits that the brand delivers to the consumer. It represents a company's characteristics. Brand attributes are a collective summary of the features that describe the physical and personality aspects of a brand. Attributes are part of the creation of the brand identity and are developed through images, actions and presumptions (Management Study Guide, 2011).

A strong, well-positioned and established brand will possess the following attributes:

- *Relevancy*  
The brand should address and meet the target audience's expectations. It should perform in line with what the consumer expects from the brand and the necessary communication and motivation should support the brand in order to persuade the consumer of the relevancy and to ensure a positive purchase decision.
- *Consistency*  
A consistent brand is supported by effective communication of the message from the company that does not deviate from the core brand position. Consistency leads to credibility and trust in the brand.

- *Proper positioning*  
Through correct and effective positioning, the brand should speak to a consumer in such a way that the consumer prefers the brand over and above any of the competitive brands.
- *Sustainability*  
Competitiveness is improved by having a strong brand. Sustainability leads to innovation and success over a longer life cycle.
- *Credibility*  
The way in which a brand is communicated to the target audience influences their purchase decision and creates expectations. A strong brand should do what it promises. The communication should be realistic. By creating unrealistic expectations, credibility will be easily lost.
- *Inspirational*  
Ultimately, a brand should inspire the category in which it participates. By being the leader, the target audience will experience motivation and upliftment.
- *Uniqueness*  
Uniqueness brings forward separation from competitors. A strong brand should be unique and different.
- *Appealing*  
Consumers experience attraction towards brands that make promises that address their needs and deliver the value that was promised. Strong brands should be attractive (Management Study Guide, 2011).

#### **2.4.2 Consumer expectations**

A brand message creates expectation from the target audience on specific deliverables from the product or service. According to Baker, Sternberg and Taylor (2003), brands are ideas and ideals that exist in the consumers' imaginations. Inside the minds of the target audience, real and lasting connections are made and the brand gets transformed and linked with personal meaning and relevance. Baker, Sternberg and Taylor (2003) explain this

process well: 'It is in this platonic, idealized world where brands take on life and where they acquire their redemptive role'.

Consumers feel a sense of protectiveness and loyalty towards their brands. It was proven that consumers remove the idealised brand-world from the real world and are very much reluctant to accept negative messages with regard to their brands from the real world. They invest heavily in what the brand means to them and will defend that point of view to a certain extent. Although consumers do not really link the brand and the company behind it, they will react to negative messages from the company that could not be denied and call for public reaction. They have thresholds beyond which beliefs get translated into action.

The globalisation of brands is a question that frequently receives attention. According to Baker, Sterenberg and Taylor (2003), consumers react powerfully towards the increased ubiquity of global brands and their homogenised identities. Marketers need to consider four key factors if the need for brand localisation is under consideration:

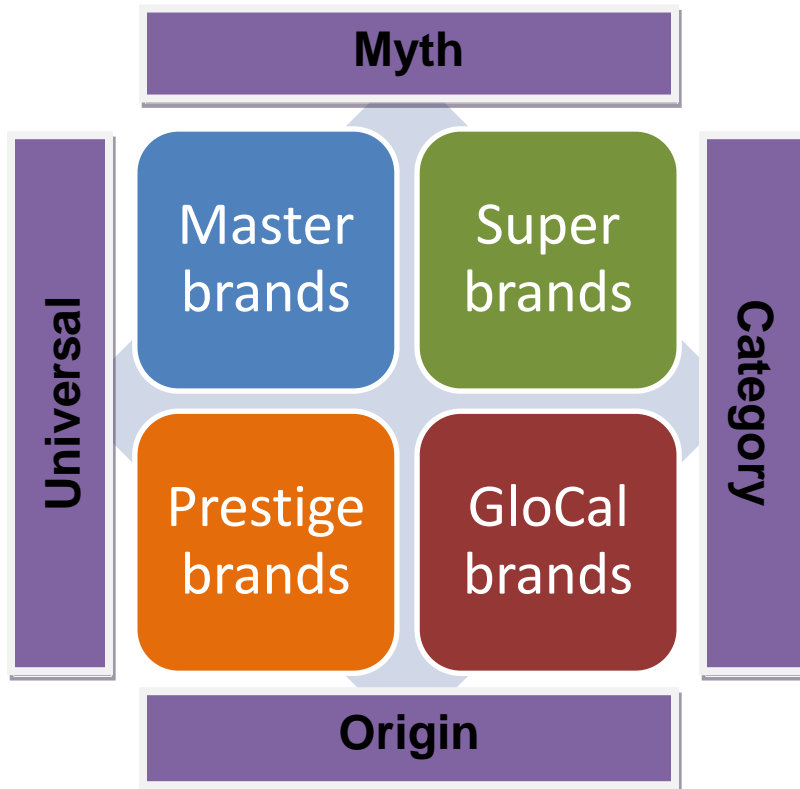
- The type of brand;
- The nature of the category in which the brand participates;
- The level of aspiration; and
- The nature of the local culture.

#### 2.4.2.1 Four types of global brands

**Master brands** –brands like Sony, Nike and Coca-Cola that are built on powerful myths and narratives and play a leading role in their category; they actually define the category. For this brand, the 'globalness' comes secondary in comparison with the universality that primarily comes into play with regard to appeal. The greatest challenge for the marketing team within these companies is to ensure appeal and relevancy over generations.

**Prestige brands** – brands have appeal built on specific myths of cultural origin or the discovery of a technology. These are brands such as BMW, Chanel, Rolex and Gucci. Most of these brands participate in strong display categories with high inspirational value. Consumers personally feel improved or more confident about themselves – higher valued – because of this brand.

**Figure 2.1: Four types of global brands**



**Source:** Baker *et al.* (2003)

**Super brands** – super brands are globally available, the same as master brands, but differ from master brands in the sense that they are defined by their category rather than a myth or narrative. Gillette, Pepsi, McDonald’s and Shell are examples of super brands that are often referred to as trusted, silver medal brands. Super brands ensure relevancy by partial localisation and constant innovation of the product or service.

**GloCal brands** – brands such as Dove, Nestle and Danone are available on a global level, but are often marketed locally under a sub-brand. The fact that consumers experience a local ownership of the brand increases its equity. These brands are mostly in categories with low display value.

#### 2.4.2.2 Category of the brand

Categories with low display value, such as food, food retail, household cleaning and personal care products, rooted in local taste, traditional culture and physiology, will always demand more localising efforts. Categories with high display value, which are also the higher inspirationally positioned brands, will require less localisation.

#### 2.4.2.3 Nature of the local culture

Baker, Sterenberg and Taylor (2003) determined that the countries in which a brand must operate could be plotted on two axes depending on whether their susceptibility towards brands is individualistic or collectivist and also on whether the country is more open and receptive towards global influence or more orientated towards their own culture and values. Figure 2.2 illustrates the results from their research.

Cultural individualists have a high pride in their culture and also show strong individualist values. Due to these characteristics, a brand needs to have both localisation and an individual connection with the target market consumer. On the other hand, global individualists experience a weaker interest or pride in their own culture and are more open and susceptible to the world's influence. This implies a lower need for localisation of the brand.

Global sensitive's are known as collectivist societies that are usually more open to the world. In this case, pride in local culture is inferior to the need for availability of global brands. For cultural sensitive's consumers take high pride in



local culture and expect global brands to respect and understand their culture and even to adapt to local circumstances.

**Figure 2.2: Cultural attitudes relating to brands**

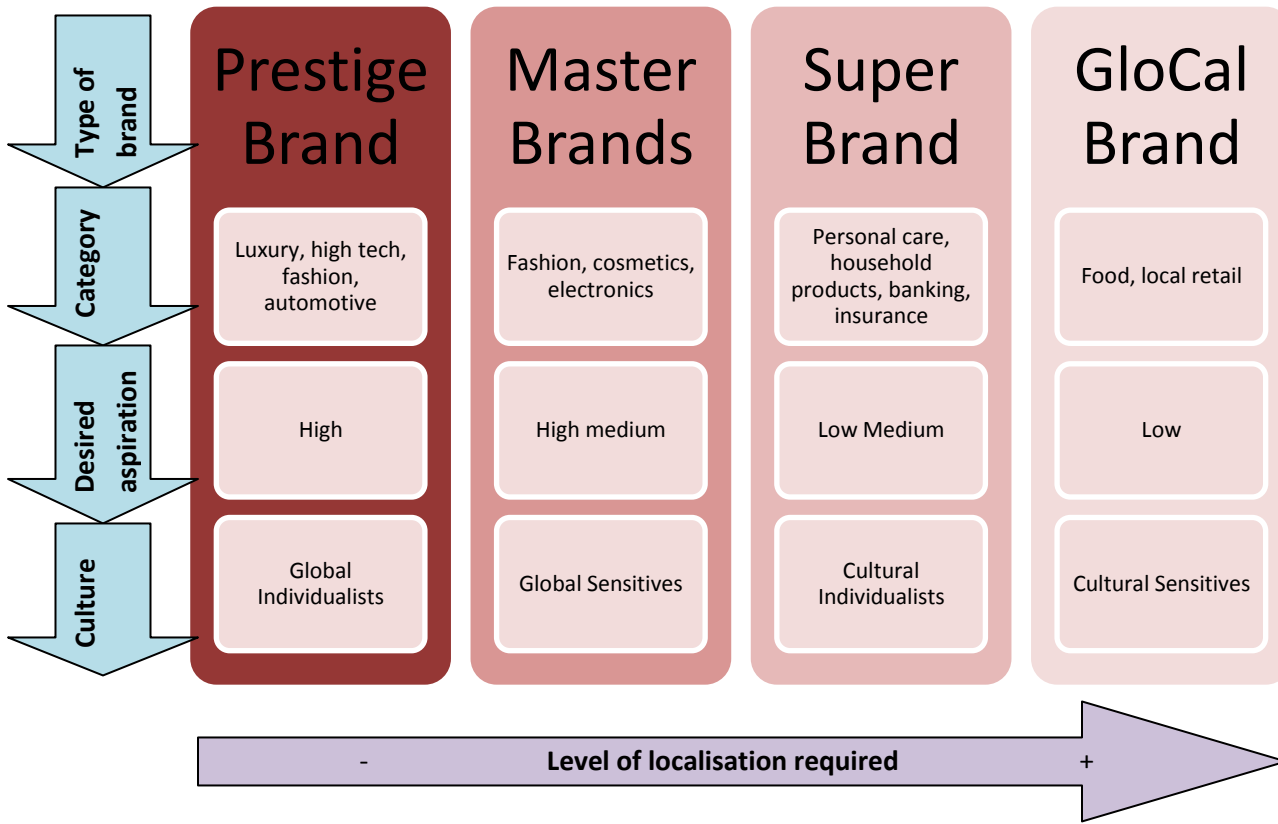


**Source:** Baker *et al.* (2003)

#### 2.4.2.4 Globalisation of a brand

Baker, Sterenberg and Taylor (2003) developed a 'road map' that provides guidance to brand managers who need to assess the need for localising versus globalising a specific brand in specific circumstances. It is a planning matrix that takes all of the factors that influence this decision into consideration. (see Figure 2.3).

Figure 2.3: A localisation road map



Source: Baker *et al.* (2003)

### 2.4.3 Competitor attributes

Competitive brands offer specific features and benefits to the consumer through their products and services. How does your brand compare and how competitive is it?

In the Major Account Sales Strategy training presented by Huthwaite and the Advantage Performance Group, a clear explanation of how a brand should be differentiated from the offerings of the competitors is provided. The company should thoroughly assess all the competitor attributes and vulnerabilities. Knowledge of the direct competitor's strengths and weaknesses has to be obtained and analysed.

You should understand the most important differentiators that distinguish you from the competition and utilise them optimally to your advantage. Factors that could play a role are price, size, weight, speed, compatibility and delivery. Use the brand's competitive advantage to develop corresponding consumer needs. Pursue direct selling strategies and expedite decisions before the competitors could adjust and influence your success.

#### **2.4.4 Price**

Price is an easily quantifiable factor; the target audience automatically compares your prices to the competitor's prices. Previous studies proved that there is a positive price-quality relationship in the consumer's mind when the only differential factor available is price (Monroe, 1976:42). These studies found that consumers preferred higher priced products when:

- Price was the only differentiator information available;
- There were large differences between the prices of the competitive brands; and/or
- There was a prior belief that quality differs significantly between the available brands.

Furthermore, it was established that consumers will refrain from buying a product or service if the price falls outside a certain price range. If the price is too high or too low, according to their perceived fair price, it will negatively influence their buying decision.

Till and Heckler (2009:22) explain that price is the cost of the package of attributes, messages and meanings that are represented by the brand. In the consumers' minds there is a direct link between the price charged for the brand and the value of the brand. Price reflects value. The greater the perceived value of the brand is in the target audience's mind, the higher the price that the brand could command will be. This also illustrates the extent to which the company

achieved success with regard to distinguishing their brand from the competitor's brands. When a company prices its brand lower, the message of a less valuable brand automatically gets communicated. Any discount programme results in the same message. Keeping all of this in mind, it is also necessary to understand that pricing decisions are not simple. All the relevant factors need to be taken into consideration: What does the competition do? Does your brand have a price elasticity? What is the real cost of goods? etc.

#### ***2.4.5 Consumer perceptions***

Consumer perception targets the reality around the perception of quality and value of your brand in the consumers' minds. Flamand (2001:1) defines perception as people's ability to make some kind of sense of what they experience as reality from the external sensory stimuli to which people are exposed. Multiple factors have an influence on the consumer's perception. The amount of attention that someone dedicates to something in specific could have a great influence on the lasting perception in that person's mind. Another example is repeated exposure to one kind of stimuli that could result in an oversensitive or desensitised reaction to the applicable stimuli.

The value of the product or service is directly related to the perceptions a consumer has of the benefits of the applicable product or service in comparison to the cost of the product or service. Consumers measure value either qualitatively or quantitatively. Qualitative value is the intangible benefits like emotional or psychological pleasure a consumer derives from a product or service. On the other end, quantitative value refers to the actual financial improvement or gain the consumer obtains by purchasing the product or service. Quality is another aspect of value that refers more specifically to the position of the product or service in comparison with the competitor's products or services. At all times, buyer's remorse should be avoided. This is the powerful feeling that

consumers experience if they regret purchasing a specific brand, product or service (Flamand, 2010:2).

The modern society is very open and susceptible to marketing, which leads to the fact that marketing is one of the most powerful forces in modern society. By means of regular, effective communication of a brand's key benefits, a new need can be created by influencing the consumer to perceive the product or service as essential and a must-have. Marketing should not only encourage brand loyalty, but should also influence the consumer's perception of value and quality (McClendon, 2011:2).

## **2.5 BRANDING IN THE GLOBAL FRUIT AND VEGETABLE INDUSTRY**

### ***2.5.1 Brand equity***

Fernandez-Barcala and Gonzalez-Diaz (2006:43) investigated the circumstances for brand name importance and value from a buyer's perspective in the fruit and vegetable industry. They used the Transaction Cost Framework to analyse their data, which is different from the most commonly used marketing and TCE approaches. They discovered that:

- Brand names are less valuable if the product or service is delivered to the consumer through a third party and not directly from the brand owner. This is caused by the fact that the consumer is less informed about the real quality of the product. If we look at the Monsanto Vegetable organisation, most of the seed is delivered to the farmers through dealerships or cooperations.
- A brand name of products and services that is of such a nature that it is difficult to measure quality seems to have a higher value in brand name.

- Brand equity increases in value if external controls and systems have been established, since the consumers perceive the information to be objective and reliable.
- Products and services that are highly specialised and have a higher number of quality signs will have a higher value in the perception of the consumer.

Since Monsanto is a biotechnology company and sells highly-specialised products in a market place where they are the leaders, these factors are very much relevant and applicable.

### ***2.5.2 CONSUMER PERCEPTION***

In the fruit and vegetable industry, the fact that the products that are produced by the farmer are directly consumed by the general retail customer, plays an important role in the development, branding and positioning of the vegetable seeds. Therefore, we need to consider the consumer perceptions of vegetables. A study conducted by Sirieix, Salaqon and Rodriguez (2008:17) found that the general French consumers perceived greenhouse farmers as businessmen who are interested in creating profit, which leaves them in a negative light if compared to open-field farmers who are in general perceived as smaller farmers with more respect for nature. Furthermore, they discovered that consumers prefer vegetables that are grown as naturally as possible; therefore, in-grounded rather than alternative methods used in some greenhouses.

Cardello, Schutz and Leshner (2007:81) investigated consumers' perceptions of foods produced or processed from innovative and emerging technologies. They found that consumer attitudes and opinions regarding these technologies and the factors that influence their acceptance are relatively strong. The fact that the perceived potential risk of the technologies was the most important factor that

influences the consumers' willingness to purchase these products and not the real, actual risks, emphasise the importance of education, communication, branding and positioning of applicable products to ensure consumer acceptance.

For a company like Monsanto, these are real-life, everyday realities that influence their business directly.

## **2.6 SUMMARY**

A brand is a living identity. It should motivate people to be their best internally, and inspire confidence and satisfaction in the external audience. Branding is used to create reputation, awareness and to build organisational image. Corporate identity is embedded in an organisation's distinctive attributes and core values. Brand identity is defined as the capacity of a brand to be recognised as unique, over a period of time, without confusion, which is due to the elements that individualise the brand identity. Brand loyalty leads to a long-term relationship with a consumer and occurs when a consumer shows loyalty towards certain brands. The perceived benefit in the consumer's mind, which is created by maintaining a relationship with a brand, the product or provider combination, leads to purchase repetition. On the other hand, brand preference can be described as the brand that consumers or buyers prefer to other competing brands in a straightforward relationship between buyer and seller.

Brand positioning refers to consumers' association of the product segment that the brand is known for and differentiates the brand from the competition. Positioning is a useful concept because it reminds us that a product is not worth much unless the product quality is clearly established in the minds of the target market, and even more so with regard to products that are positioned in a highly competitive market place. There are five factors that need to be considered when a brand is positioned:

- Brand attributes
- Consumer expectations
- Competitor attributes
- Price
- Consumer perceptions.

Monsanto acquired several vegetable seed companies globally from 2005 to 2009. Some of these companies are Seminis Seeds, Western Seed, PoloniSemences, De Ruiters Seeds and Peotec Seeds. These seed companies had a very wide range of crops and products covered, which were decreased and narrowed down by Monsanto Vegetables to focus on six groups of products. This study will focus on determining what the brand position and customer perception are and recommending a strategy going forward.



# CHAPTER 3

## EMPIRICAL RESEARCH

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### 3.1 INTRODUCTION

This chapter describes the methodology used in this research design, the research procedure and the research results. Van Heerden (1993) developed a research methodology that was applied to explain the results from this research. A semantic differential scale was used as research instrument. The development of suitable items was included in the semantic differential.

The semantic differential scale that was applied to measure the brand position in this research is widely used, on a global level, in marketing research. The data was collected directly from customers on grower level as well as distributor and nursery levels. These customers represent vegetable growers in general and were not part of any specific company's database. Therefore, all vegetable seed companies were included in the research. Data was collected by the marketing and product management teams of Monsanto and additional support from Market Probe (market research consultancy) was acquired. Information was collected during one-on-one interview sessions with the growers.

The primary objective of this investigation was to determine how the Seminis brand is currently positioned relative to competitors within key crops in the vegetable seed industry in the NAFTA and EMEA regions. Monsanto did a factor analysis of all of the attributes considered by a customer during the decision-making process, which is beyond the scope of this study. The objective was to determine if any attribute is more important than another. This part of the research that Monsanto did is not included in this study.

## **3.2 RESEARCH METHODOLOGY**

Both qualitative and quantitative research was included in this study.

### ***3.2.1 Qualitative research***

Qualitative research was conducted by means of discussions with the global Monsanto marketing team, growers, distributors and nursery owners. The objective of these discussions was to identify factors of importance within the global open-field vegetable agricultural industry. The focus group consisted of global marketing team members and global product managers within the Monsanto Vegetable organisation.

Following the focus group discussions, an open-ended interview questionnaire was discussed with each participant in order to capture their views regarding the success factors in the marketing of vegetable seeds in the agricultural industry. This part of the research was conducted early in 2010 and determined the criteria that were used to construct the measuring instrument.

### ***3.2.2 Quantitative research***

By using the collected information from the discussion groups, a structured questionnaire was drafted. The questionnaire consisted of the identified factors and specific criteria to further evaluate each factor. A 10-point Likert scale was used to capture the attitudes, views and perceptions of the respondents. A total of 1 177 interviews (475 in North America and Canada; 702 in Europe, Middle East and Africa) were completed for this study in the first quarter of 2010. Interviews were conducted by the Monsanto marketing and product

management teams and additional support was provided by a marketing consultant, Market Probe.

To be included in the study, growers were screened based on the following criteria:

- ❖ They have to be actively involved in growing vegetables
- ❖ They have to be the individual primarily responsible for decisions concerning the vegetable seed varieties purchased for their operations
- ❖ Must not or any member of their household:
  - Work for a farm chemical manufacturer, distributor, or dealer
  - Work for a vegetable seed company
  - Sell vegetable seed
- ❖ Must have 10 or more acres in open-field vegetable production

### **3.2.2.1 Semantic differential scale**

In this study, the semantic differential, which is used to measure the brand position, was applied. Semantic differentials were first developed in 1957 by Osgood *et al.* as a reliable way to measure attitudes. This type of measurement is applicable to any subject where people's opinions are researched. Shield (2005:116) described the semantic differential as one of the most highly-generalised techniques of measurement that must be adapted to the requirements of each research problem to which it is applied.

The semantic differential scale is easy and quick to administer and is widely used in marketing research surveys. A ten-point semantic differential scale was employed and numbered to represent the continuum between the anchors. Ten-point and five-point scales are commonly used in consumer research, mainly because researchers suspect that these scales tend to be more easily

understood by the respondents. The anchors on either end of the scale are strong opposites with various intervals in between in the following form:

***Very negative 1 2 3 4 5 6 7 8 9 10 Very positive***

Respondents then need to mark their feelings on the scale. This scale has the advantage of offering a neutral view within the five or six options provided to the respondent, but it also provides the flexibility of allocating that score to either the negative or positive in the analysis exercise.

According to Martins *et al.* (1999:226), the semantic differential scale is used in comparison with the characteristics of two or more brands or items or attitudes towards them. A large number of brands or products can be compared with a large number of characteristics or properties in a relatively short interview.

### **3.2.2.2 Likert scale**

A Likert scale was applied, which forces the respondents to indicate a degree of agreement or disagreement with each of the various statements related to attitude objects. Likert questions are very similar to semantic differential scales. Only questions that indicate some level of agreement or disagreement can be considered on a Likert scale.

### **3.3 RESULTS**

The results consist of:

- A demographic profile of the respondents; and
- Statistical results.

The statistical results will cover all the different factors that describe the respondent's perception with regard to the brand's position.

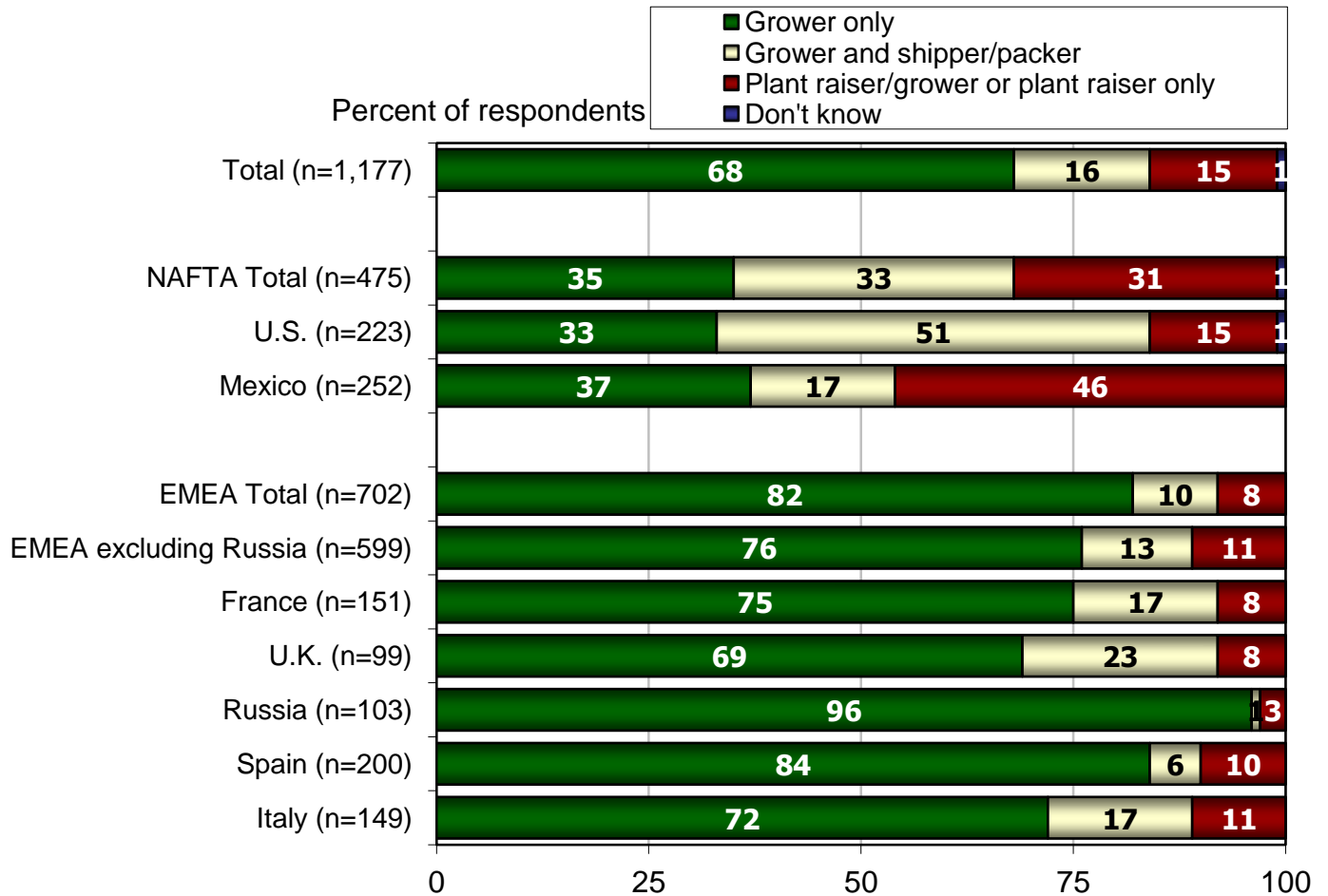
#### ***3.3.1 Demographic profile***

Growers in the NAFTA region were fairly evenly split between grower only (35%), grower and shipper/packer (33%), and grower plant raiser/plant raiser only (31%). In EMEA, growers were much more likely to be growers only (82%).

The question that the respondents had to answer was: Which of the following best describes your operation?

See Figure 3.1 for survey results.

**Figure 3.1: Types of growers interviewed during the research (Base = all respondents)**



The size of the growers was determined by targeted crop. The respondent had to answer the following questions:

- How many, if any, total acres do you have in open-field vegetable production?
- How many total acres of open-field did you produce in 2009?

See Table 3.1 for results. Hectares were converted to acres. The broccoli and cauliflower growers from the UK who planted more than 1000 acres were not included in the average calculation.

**Table 3.1: Size of growers measured in average acres by targeted crop (Base = all respondents)**

	<u>Fresh tomatoes</u>	<u>Onions</u>	<u>Sweet peppers</u>	<u>Hot peppers</u>	<u>Broccoli**</u>	<u>Melons</u>	<u>Cauliflower</u>	<u>Lettuce</u>	<u>Fresh cucumbers</u>
<b>Total Open Field (n=1,177)</b> . . . . .	<b>36.5</b>	<b>67.3</b>	<b>45.2</b>	<b>52.2</b>	<b>79.3</b>	<b>44.5</b>	<b>12.0</b>	<b>38.3</b>	<b>86.1</b>
<b>NAFTA Total (n=475)</b> . . . . .	<b>36.5</b>	<b>104.6</b>	<b>45.2</b>	<b>52.2</b>	<b>120.4</b>	<b>54.4</b>	--	--	--
U.S. (n=223). . . . .	31.8	126.4	45.2	--	183.5	82.6	--	--	--
Mexico (n=252). . . . .	41.7	81.1	--	52.2	88.6	25.9	--	--	--
<b>EMEA Total (n=702)</b> . . . . .	--	<b>53.7</b>	--	--	<b>37.0</b>	<b>40.5</b>	<b>12.0</b>	<b>38.3</b>	<b>86.1</b>
<b>EMEA excluding</b>									
<b>Russia (n=599)</b> . . . . .	--	<b>17.3</b>	--	--	<b>81.6</b>	<b>40.5</b>	<b>12.0</b>	<b>38.3</b>	--
France (n=151). . . . .	--	13.6	--	--	--	17.8	--	8.5	--
U.K. (n=99) . . . . .	--	--	--	--	81.6	--	--	--	--
Russia (n=103) . . . . .	--	72.7	--	--	--	--	--	--	86.1
Spain (n=200) . . . . .	--	18.3	--	--	33.6	27.1	--	98.4	--
Italy (n=149) . . . . .	--	--	--	--	--	49.6	12.0	15.6	--

### **3.3.2 Statistical results**

Unaided awareness was measured by asking the respondent when he/she thinks of a vegetable seed company, what company names come to mind. Unaided awareness of the Seminis brand is fairly impressive in the NAFTA region, averaging 34% compared to 32% for Harris Moran, the only other specific brand to have significant top-of-mind awareness. It is notable that only 11% of NAFTA growers mentioned Rogers on an unaided basis, but 24% mentioned Rogers or Syngenta on an unaided basis. Therefore, there is fairly high unaided awareness of Syngenta as a brand of vegetable seed. In EMEA, one out of five (20%) growers mentioned Seminis on an unaided basis, which is significantly lower than Bejo (31%) and Nunhems (27%). Similar to NAFTA, only 8% of EMEA growers mentioned the S&G brand on an unaided basis, but 32% mentioned S&G or Syngenta on an unaided basis, indicating the strength of the Syngenta brand name.

See Table 3.2 for results.

**Table 3.2: Unaided seed brand awareness (Base = all respondents)**

	<u>Seminis</u>	<u>DeRuiter</u>	<u>Nunhems</u>	<u>Bejo</u>	<u>**Rogers/ S&amp;G</u>	<u>***Syngenta (NET)</u>	<u>Harris Moran</u>	<u>Rijk Zwaan</u>	<u>Sakata</u>	<u>Vilmorin</u>
<b>Total Open Field (n=1,177)</b> . . . . .	<b>24%</b>	<b>6%</b>	<b>21%</b>	<b>23%</b>	<b>9%</b>	<b>30%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>NAFTA Total (n=475)</b> . . . . .	<b>34%</b>	<b>2%</b>	<b>9%</b>	<b>4%</b>	<b>11%</b>	<b>24%</b>	<b>32%</b>	*	*	*
U.S. (n=223) . . . . .	24%	--	10%	5%	10%	22%	27%	*	*	*
Mexico (n=252) . . . . .	43%	3%	7%	3%	12%	27%	37%	*	*	*
<b>EMEA Total (n=702)</b> . . . . .	<b>20%</b>	<b>8%</b>	<b>27%</b>	<b>31%</b>	<b>8%</b>	<b>32%</b>	*	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>EMEA excluding Russia (n=599)</b> . . . . .	<b>14%</b>	<b>9%</b>	<b>24%</b>	<b>17%</b>	<b>11%</b>	<b>33%</b>	*	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
France (n=151) . . . . .	8%	2%	12%	8%	5%	16%	*	*	*	62%
U.K. (n=99) . . . . .	20%	1%	1%	11%	8%	33%	*	*	13%	*
Russia (n=103) . . . . .	37%	3%	32%	64%	3%	28%	*	9%	*	*
Spain (n=200) . . . . .	25%	10%	42%	28%	11%	36%	*	22%	*	*
Italy (n=149) . . . . .	7%	11%	16%	12%	11%	34%	*	*	*	36%

Notes: \*Not asked

\*\*Rogers – NAFTA (Syngenta); S&G – EMEA (Syngenta)

\*\*\*Includes mentions of Rogers (NAFTA), S&G (EMEA), and Syngenta

Total brand awareness (unaided plus aided) is impressive for Seminis in both NAFTA and EMEA. Specifically, within the NAFTA region, 76% of growers claimed to be aware of the Seminis brand of seed, compared to 83% for Harris Moran and 65% for Rogers, the other leading competitors in the market. In the EMEA region, 59% of growers indicated that they were aware of the Seminis brand, compared to 72% for Nunhems, 61% for Bejo, and 51% for S&G. Aided brand awareness was measured by asking respondents whether they are aware of the respective seed companies. Table 3.3 illustrates the results from the survey.



**Table 3.3: Total seed brand awareness: unaided plus aided (Base = all respondents).**

	<u>Seminis</u>	<u>DeRuiter</u>	<u>Nunhems</u>	<u>Bejo</u>	<u>**Rogers/ S&amp;G</u>	<u>Harris Moran</u>	<u>Rijk Zwaan</u>	<u>Sakata</u>	<u>Vilmorin</u>
<b>Total Open Field (n=1,177) . . . . .</b>	<b>64%</b>	<b>39%</b>	<b>62%</b>	<b>51%</b>	<b>55%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>NAFTA Total (n=475) . . . . .</b>	<b>76%</b>	<b>25%</b>	<b>37%</b>	<b>29%</b>	<b>65%</b>	<b>83%</b>	*	*	*
U.S. (n=223) . . . . .	81%	24%	47%	45%	83%	89%	*	*	*
Mexico (n=252) . . . . .	72%	27%	27%	14%	48%	78%	*	*	*
<b>EMEA Total (n=702) . . . . .</b>	<b>59%</b>	<b>44%</b>	<b>72%</b>	<b>61%</b>	<b>51%</b>	*	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>EMEA excluding</b>									
<b>Russia (n=599) . . . . .</b>	<b>49%</b>	<b>50%</b>	<b>67%</b>	<b>46%</b>	<b>62%</b>	*	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
France (n=151) . . . . .	54%	40%	58%	44%	52%	*	*	*	94%
U.K. (n=99) . . . . .	56%	15%	27%	62%	70%	*	*	63%	*
Russia (n=103) . . . . .	82%	30%	84%	95%	23%	*	72%	*	*
Spain (n=200) . . . . .	62%	60%	76%	50%	66%	*	60%	*	*
Italy (n=149) . . . . .	41%	47%	64%	44%	62%	*	*	*	82%

Notes: \*Not asked

\*\*Rogers – NAFTA (Syngenta); S&G – EMEA (Syngenta)

As indicated by Table 3.4, we found that there is fairly widespread experience pertaining to the Seminis brand in NAFTA, as six out of ten (60%) growers indicated that they are either a current (40%) or past (20%) user of the brand. However, there is less direct experience with the Seminis brand in EMEA, as only 36% of growers identified themselves as current (18%) or past (18%) users of Seminis vegetable seed. The familiarity with the respective seed companies was measured individually. Find the competitor company survey results in Appendix C.

Firsthand experience (current or past user) was impressive for the primary competitive brands in each region: NAFTA: 60% current/past user of Harris Moran and 39% current/past user of Rogers; EMEA: 46% current/past user of Nunhems, 39% current /past user of Bejo, and 29% current/past user of S&G.

**Table 3.4: Respondents' familiarity with the Seminis brand (Base = all respondents)**

	<u>Not aware</u>	<u>Name only</u>	<u>Familiar/ never considered</u>	<u>Familiar/ considered</u>	<u>Past user</u>	<u>Current user</u>
<b>Total Open Field (n=1,177) . . . . .</b>	<b>36%</b>	<b>11%</b>	<b>4%</b>	<b>7%</b>	<b>18%</b>	<b>24%</b>
<b>NAFTA Total (n=475) . . . . .</b>	<b>24%</b>	<b>9%</b>	<b>4%</b>	<b>3%</b>	<b>20%</b>	<b>40%</b>
U.S. (n=223) . . . . .	19%	10%	3%	3%	20%	45%
Mexico (n=252) . . . . .	29%	8%	6%	3%	19%	35%
<b>EMEA Total (n=702) . . . . .</b>	<b>41%</b>	<b>11%</b>	<b>4%</b>	<b>8%</b>	<b>18%</b>	<b>18%</b>
<b>EMEA excluding</b>						
<b>Russia (n=599) . . . . .</b>	<b>51%</b>	<b>15%</b>	<b>5%</b>	<b>1%</b>	<b>13%</b>	<b>15%</b>
France (n=151) . . . . .	46%	22%	1%	1%	11%	19%
U.K. (n=99) . . . . .	44%	16%	--	--	18%	22%
Russia (n=103) . . . . .	18%	2%	2%	25%	29%	24%
Spain (n=200) . . . . .	38%	22%	6%	1%	21%	12%
Italy (n=149) . . . . .	59%	9%	5%	1%	9%	17%

No particular brand, in either NAFTA or EMEA, seems to have distinguished itself in either a positive or negative manner over the past five years. That is, there is little consensus regarding any brand that has improved the most or declined the most over the past five years. Therefore, for the comparison of most improved versus most declined seed brand, growers are not aware of any significant shifts that have occurred relative to vegetable seed brands. However, they did identify some of the brands as being most improved vegetable seed companies (this measurement was done unaided).

This was measured separately for NAFTA and EMEA and Tables 3.5 and 3.6 illustrate the results from the survey. Questions 2.a and 2.b addressed this measurement.

**Table 3.5: Percentage considering vegetable seed company – most improved versus most declined over the past five-year time frame**

	Seminis		Nunhems		Bejo		Rogers/S&G		Harris Moran	
	<u>Most improved</u>	<u>Most declined</u>	<u>Most improved</u>	<u>Most declined</u>	<u>Most improved</u>	<u>Most declined</u>	<u>Most improved</u>	<u>Most declined</u>	<u>Most improved</u>	<u>Most declined</u>
<b>Total Open Field (n=1,177)</b> . . . . .	10%	2%	6%	1%	5%	1%	3%	2%	N/A	N/A
<b>NAFTA Total (n=475)</b> . . . . .	23%	5%	4%	1%	3%	2%	5%	4%	17%	6%
U.S. (n=223) . . . . .	15%	6%	5%	1%	6%	1%	7%	4%	10%	9%
Mexico (n=252) . . . . .	31%	3%	2%	1%	1%	2%	2%	3%	23%	4%
<b>EMEA Total (n=702)</b> . . . . .	4%	1%	7%	1%	5%	1%	2%	1%	*	*
<b>EMEA excluding</b>										
<b>Russia (n=599)</b> . . . . .	2%	2%	8%	2%	4%	2%	3%	1%	*	*
France (n=151) . . . . .	2%	3%	1%	3%	3%	3%	2%	1%	*	*
U.K. (n=99) . . . . .	4%	3%	--	--	3%	--	3%	1%	*	*
Russia (n=103) . . . . .	8%	--	5%	--	8%	--	--	--	*	*
Spain (n=200) . . . . .	4%	1%	19%	2%	8%	3%	3%	4%	*	*
Italy (n=149) . . . . .	1%	2%	3%	1%	2%	1%	4%	--	*	*

Notes: \*Only in NAFTA market

	Rijk Zwaan		Sakata		Vilmorin	
	<u>Most improved</u>	<u>Most declined</u>	<u>Most improved</u>	<u>Most declined</u>	<u>Most improved</u>	<u>Most declined</u>
<b>EMEA</b>						
France (n=151) . . . . .	6%	--	1%	--	16%	13%
U.K. (n=99) . . . . .	1%	2%	2%	1%	4%	--
Russia (n=103) . . . . .	--	1%	--	--	--	--
Spain (n=200) . . . . .	6%	1%	11%	1%	1%	3%
Italy (n=149) . . . . .	2%	--	--	--	5%	3%

Notes: Only in EMEA market

**Table 3.6: Reasons company is perceived as being most improved vegetable seed company: unaided measurement results (Base = Respondents selecting company as most improved)**

**- Mentions of 10% or more -**

	-- NAFTA --		-- EMEA --
	<u>Seminis</u> (n=112)	<u>Harris Moran</u> (n=80)	<u>Seminis</u> (n=24)
Quality seeds . . . . .	24%	26%	36%
Disease resistant seeds. . . . .	21%	22%	--
More available varieties . . . . .	19%	18%	1%
Higher yield . . . . .	18%	22%	7%
Size of vegetables . . . . .	13%	19%	--
Development of new varieties . . . . .	11%	11%	18%
Reputation . . . . .	3%	--	15%
Performance . . . . .	--	1%	11%

The overall impressions of the Seminis brand in NAFTA are impressive. See Table 3.9 for results (competitor brand results in Appendix D). On a total sample basis, 52% of NAFTA growers indicated that they have very a positive/positive impression of Seminis, which is similar to the 53% favourable rating for Harris Moran, but significantly higher than the 32% favourable rating for Rogers. In the EMEA region, the overall rating of Seminis is heavily influenced by the very favourable rating of the brand among Russian growers. Specifically, on a total EMEA basis, 31% of growers were found to have a very/somewhat positive impression of the brand. However, if Russia is excluded from this, the percentage favourable rating for Seminis drops to just 14%. Overall ratings for Bejo are also inflated by the inclusion of Russia, while Nunhems (32% favourable) and S&G (20% favourable) have a more consistent image across the region. See Table 3.7 for results.

The results for the measurement of the likelihood of recommending the seed brand turned out to deliver results similar to the overall ratings of the brands. Find results in Table 3.8.

**Table 3.7: Overall impression of seed brand – Percent Favourable**

*- Percent “very positive/positive” (8-10) -*

	<u>Seminis</u>	<u>DeRuiter</u>	<u>Nunhems</u>	<u>Bejo</u>	<u>Rogers/ S&amp;G</u>	<u>Harris Moran</u>	<u>Rijk Zwaan</u>	<u>Sakata</u>	<u>Vilmorin</u>
<b>Total Open Field (n=1,177) . . . . .</b>	<b>37%</b>	<b>10%</b>	<b>27%</b>	<b>28%</b>	<b>23%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>NAFTA Total (n=475) . . . . .</b>	<b>52%</b>	<b>8%</b>	<b>16%</b>	<b>11%</b>	<b>32%</b>	<b>53%</b>	*	*	*
U.S. (n=223) . . . . .	43%	4%	17%	16%	35%	41%	*	*	*
Mexico (n=252) . . . . .	60%	12%	16%	6%	28%	64%	*	*	*
<b>EMEA Total (n=702) . . . . .</b>	<b>31%</b>	<b>11%</b>	<b>32%</b>	<b>35%</b>	<b>20%</b>	*	N/A	N/A	N/A
<b>EMEA excluding</b>									
<b>Russia (n=599) . . . . .</b>	<b>14%</b>	<b>12%</b>	<b>29%</b>	<b>13%</b>	<b>24%</b>	*	N/A	N/A	N/A
France (n=151) . . . . .	10%	5%	8%	13%	11%	*	*	*	38%
U.K. (n=99) . . . . .	12%	--	3%	18%	17%	*	*	14%	*
Russia (n=103) . . . . .	72%	9%	37%	87%	9%	*	24%	*	*
Spain (n=200) . . . . .	16%	11%	39%	12%	16%	*	18%	*	*
Italy (n=149) . . . . .	14%	14%	28%	13%	31%	*	*	*	43%

Notes: \*Not asked

**Table 3.8: Likelihood of recommending seed brand**

*- Percent “very likely/likely” (8-10) -*

	<u>Seminis</u>	<u>DeRuiter</u>	<u>Nunhems</u>	<u>Bejo</u>	<u>Rogers/ S&amp;G</u>	<u>Harris Moran</u>	<u>Rijk Zwaan</u>	<u>Sakata</u>	<u>Vilmorin</u>
<b>Total Open Field (n=1,177) . . . . .</b>	<b>34%</b>	<b>10%</b>	<b>26%</b>	<b>28%</b>	<b>22%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>NAFTA Total (n=475) . . . . .</b>	<b>50%</b>	<b>7%</b>	<b>15%</b>	<b>12%</b>	<b>32%</b>	<b>48%</b>	*	*	*
U.S. (n=223) . . . . .	41%	3%	15%	16%	37%	36%	*	*	*
Mexico (n=252) . . . . .	57%	11%	14%	7%	27%	60%	*	*	*
<b>EMEA Total (n=702) . . . . .</b>	<b>28%</b>	<b>11%</b>	<b>30%</b>	<b>34%</b>	<b>18%</b>	*	N/A	N/A	N/A
<b>EMEA excluding</b>									
<b>Russia (n=599) . . . . .</b>	<b>12%</b>	<b>11%</b>	<b>27%</b>	<b>13%</b>	<b>22%</b>	*	N/A	N/A	N/A
France (n=151) . . . . .	10%	3%	10%	14%	11%	*	*	*	31%
U.K. (n=99) . . . . .	12%	--	2%	13%	14%	*	*	14%	*
Russia (n=103) . . . . .	18%	10%	37%	85%	9%	*	20%	*	*
Spain (n=200) . . . . .	11%	9%	36%	10%	12%	*	17%	*	*
Italy (n=149) . . . . .	13%	14%	26%	15%	31%	*	*	*	44%

Notes: \*Not asked

**Table 3.9: Perceived strengths of Seminis over other vegetable seed companies: Unaided (Base = respondents familiar with Seminis)**

- Mentions of 5% or more -

	<u>NAFTA</u> (n=316)	<u>EMEA</u> (n=296)
Quality seed . . . . .	17%	13%
More available varieties . . . . .	11%	3%
Good yield . . . . .	8%	7%
Disease resistance seeds . . . . .	8%	4%
Advertising/marketing/promotions . . . . .	7%	--
Size of vegetables . . . . .	6%	--
Development of new varieties . . . . .	3%	8%
Customer service/support . . . . .	2%	5%
Nothing/don't know . . . . .	26%	36%

**Table 3.10: Perceived weaknesses of vegetable seed companies: Unaided (Base = respondents familiar with brands)**

- Mentions of 5% or more -

	-- NAFTA --					-- EMEA --				
	<u>Seminis</u> (n=316)	<u>Bejo</u> (n=89)	<u>Nunhems</u> (n=121)	<u>Rogers/ S&amp;G</u> (n=230)	<u>Harris Moran</u> (n=171)	<u>Seminis</u> (n=296)	<u>Bejo</u> (n=296)	<u>Rogers/ Nunhems</u> (n=364)	<u>S&amp;G</u> (n=283)	<u>DeRuiter</u> (n=171)
Prices are too high . . . . .	9%	1%	7%	6%	4%	6%	6%	7%	7%	8%
Advertising/marketing/promotions . . . . .	1%	7%	3%	5%	3%	1%	6%	1%	1%	1%
Insufficient varieties available . . . . .	4%	3%	6%	3%	5%	1%	1%	1%	1%	1%
Nothing/all the same . . . . .	67%	54%	59%	65%	55%	81%	82%	79%	79%	78%

Table 3.10 illustrates that there were no significant differences in the respondents' perceptions of the weaknesses of the competitive vegetable seed companies. For both NAFTA and EMEA, the overall scores were very similar between the respective companies.

The measurement for the rating of brands on key attributes was done separately for the NAFTA and EMEA regions. Find the overall results in Table 3.11. Across the NAFTA region, Seminis is most highly rated relative to having seed that is clean and free of seed-borne diseases (57% very good/good). Approximately one out of two growers (50%-52%) also rated Seminis as very good/good relative to having disease-resistant seed, germination/ emergence/vigour, having seed varieties that produce tasty/flavourful vegetables, consistent performance season after season, uniformity or consistency in vegetable quality, trustworthiness, being experts in vegetable production, and having top yielding vegetable seed varieties. The lowest rated aspect of Seminis was providing local service and technical support (37% very good/good). Compared to its NAFTA competitors, Seminis is consistently rated higher than either Nunhems or Rogers, but there are no statistically significant differences between the ratings of Seminis and Harris Moran on any of the brand attributes examined.

Across the entire EMEA region, attribute ratings for Seminis and its key competitors are considerably lower than was noted in NAFTA. To a large extent, this is explained by a higher percentage of growers in EMEA who are not aware of/not familiar with the brands. The most favourable ratings (% very good/good) for Seminis in EMEA were: being experts in vegetable production (24%), having top yielding varieties (22%), research and development efforts (20%), having an adequate inventory of seed available (20%), germination/emergence/vigour (20%), and being a leader in introducing new/improved varieties (20%). The lowest-rated attribute for Seminis was value for money of the seed (14%). The more established seed brands in EMEA have a slight advantage over Seminis on many of the attributes evaluated. That is, Nunhems, and to some extent S&G, is rated higher on many of the attributes relative to Seminis. These differences, while statistically significant, are not dramatic and can certainly be overcome.

Focusing on **only growers who are familiar with the brands** across both NAFTA and EMEA reveals few significant differences between any of the major

brands. That is, even among the most “knowledgeable” growers for each brand; there is a lack of clear differentiation. The only notable exception is that Harris Moran seems to have been able to slightly differentiate themselves from Seminis, Nunhems and Rogers/S&G on several performance/product attributes, particularly developing products that allow growers to obtain a premium price and consistent performance season after season. See research results Table 3.13.

**Table 3.11: Ratings of brands on key attributes – ALL growers – Percentage very good/good (Base = all respondents)**

Indicates significantly higher percentage than Rogers/S&G.

Seminis is rated significantly higher than Nunhems on every attribute.

**- Percent “very good/good” (8-10) -**

	<b>Seminis (n=1,177)</b>	<b>Nunhems (n=1,177)</b>	<b>Rogers/S&amp;G (n=1,177)</b>
Being experts in vegetable production . . . . .	<span style="border: 1px solid red;">34%</span>	24%	26%
*Having top yielding vegetable seed varieties. . . . .	<span style="border: 1px solid red;">33%</span>	21%	27%
Having seed that is clean and free of seed-borne diseases . . . . .	<span style="border: 1px solid red;">32%</span>	21%	24%
*Having seed varieties that produce tasty/flavorful vegetables. . . . .	<span style="border: 1px solid red;">32%</span>	19%	24%
Germination, emergence, and vigor of seed. . . . .	<span style="border: 1px solid red;">31%</span>	21%	26%
Research and development efforts . . . . .	<span style="border: 1px solid red;">30%</span>	22%	27%
Uniformity or consistency in vegetable quality . . . . .	<span style="border: 1px solid red;">30%</span>	21%	24%
Being a leader in introducing new and/or improved varieties . . . . .	<span style="border: 1px solid red;">30%</span>	19%	25%
Trustworthiness/reliability . . . . .	<span style="border: 1px solid red;">29%</span>	21%	28%
Having an adequate inventory of seed available when needed . . . . .	<span style="border: 1px solid red;">29%</span>	21%	25%
Having disease-resistant seed. . . . .	<span style="border: 1px solid red;">28%</span>	21%	23%
Having seed varieties that are well suited for growing conditions . . . . .	<span style="border: 1px solid red;">28%</span>	20%	23%
Broad selection of varieties across crops . . . . .	<span style="border: 1px solid red;">27%</span>	20%	24%
Developing the products demanded by end-use markets. . . . .	<span style="border: 1px solid red;">27%</span>	18%	23%
Ease of doing business with . . . . .	<span style="border: 1px solid red;">26%</span>	19%	20%
Broad selection of varieties within crops . . . . .	<span style="border: 1px solid red;">26%</span>	19%	20%
Consistent performance season after season . . . . .	<span style="border: 1px solid red;">26%</span>	18%	21%
*Developing products that allow growers to obtain a premium price for the output. . . . .	<span style="border: 1px solid red;">26%</span>	17%	19%
Maximize the return on investment. . . . .	<span style="border: 1px solid red;">26%</span>	16%	20%
Providing local service and technical support to growers. . . . .	<span style="border: 1px solid red;">26%</span>	16%	17%
Treated like a valued customer . . . . .	<span style="border: 1px solid red;">25%</span>	16%	19%
Developing mutually-beneficial relationships with growers . . . . .	<span style="border: 1px solid red;">25%</span>	15%	20%
Value of the seed for the money. . . . .	<span style="border: 1px solid red;">23%</span>	14%	15%

Notes: \* Not asked of plant raisers



**Table 3.12: Rating of Seminis and competitors on key attributes – percentage very good/good – growers familiar with brand (Base = respondents at least somewhat familiar with brand)**

**- Percent “very good/good” (8-10) -**

	<u>Seminis</u> (n=600)	<u>Nunhems</u> (n=328)	<u>Rogers/S&amp;G</u> (n=424)	<u>**Harris Moran</u> (n=254)
Being experts in vegetable production . . . . .	63%	57%	54%	67%
*Having top yielding vegetable seed varieties. . . . .	60%	49%	55%	74%
Having seed that is clean and free of seed-borne diseases . . . . .	59%	49%	50%	77%
*Having seed varieties that produce tasty/ flavorful vegetables. . . . .	58%	45%	50%	73%
Germination, emergence, and vigor of seed. . . . .	58%	49%	55%	76%
Uniformity or consistency in vegetable quality . . . . .	57%	49%	51%	74%
Being a leader in introducing new and/or improved varieties . . . . .	56%	45%	53%	65%
Research and development efforts . . . . .	56%	53%	57%	62%
Trustworthiness/reliability . . . . .	55%	51%	59%	73%
Having an adequate inventory of seed available when needed . . . . .	55%	49%	53%	68%
Having disease-resistant seed. . . . .	52%	49%	49%	69%
Having seed varieties that are well suited for growing conditions . . . . .	52%	48%	48%	67%
Having seed varieties that are well suited for growing conditions . . . . .	52%	48%	48%	67%
Developing the products demanded by end-use markets. . . . .	50%	43%	49%	64%
Broad selection of varieties across crops . . . . .	50%	48%	50%	62%
Consistent performance season after season . . . . .	49%	43%	44%	68%
Ease of doing business with . . . . .	49%	44%	43%	64%
Maximize the return on investment. . . . .	49%	37%	43%	64%
Broad selection of varieties within crops . . . . .	48%	45%	42%	63%
*Developing products that allow growers to obtain a premium price for the output. . . . .	48%	39%	40%	68%
Providing local service and technical support to growers. . . . .	48%	37%	35%	52%
Treated like a valued customer . . . . .	47%	38%	39%	64%
Developing mutually-beneficial relationships with growers . . . . .	46%	36%	41%	59%
Value of the seed for the money. . . . .	43%	34%	31%	59%

*Notes: \* Not asked of plant raisers; \*\*Asked only in NAFTA market*

**Table 3.13: Importance of key attributes when purchasing seed – percentage very important/important (Base = all respondents)**

**- Percent “very important/important” (8-10) -**

	<u>Total</u> <u>open field</u> (n=1,177)	<u>NAFTA</u>			<u>EMEA</u>					
		<u>Total</u> (n=475)	<u>U.S.</u> (n=223)	<u>Mexico</u> (n=252)	<u>Total</u> (n=702)	<u>France</u> (n=151)	<u>U.K.</u> (n=99)	<u>Russia</u> (n=103)	<u>Spain</u> (n=200)	<u>Italy</u> (n=149)
Having disease-resistant seed. . . . .	93%	97%	95%	98%	91%	84%	82%	100%	86%	90%
Having seed that is clean and free of seed-borne diseases. . . . .	92%	97%	96%	97%	91%	83%	87%	99%	85%	89%
Uniformity or consistency in vegetable quality. . . . .	89%	96%	94%	98%	86%	72%	84%	89%	87%	85%
Having seed varieties that are well suited for growing conditions. . . . .	89%	95%	95%	95%	87%	74%	82%	89%	83%	89%
*Having top yielding vegetable seed varieties. . . . .	89%	94%	92%	96%	87%	60%	75%	100%	74%	88%
Consistent performance season after season. . . . .	88%	96%	95%	98%	85%	77%	84%	85%	86%	85%
*Having seed varieties that produce tasty/ flavorful vegetables. . . . .	88%	90%	82%	97%	87%	81%	77%	88%	81%	90%
Germination, emergence, and vigor of seed. . . . .	87%	96%	94%	97%	83%	80%	81%	100%	76%	75%
Trustworthiness/reliability. . . . .	87%	95%	92%	97%	84%	68%	78%	79%	79%	93%
Value of the seed for the money. . . . .	87%	88%	81%	95%	87%	71%	78%	96%	86%	84%
Maximize the return on investment. . . . .	86%	96%	94%	97%	83%	62%	78%	85%	78%	87%
*Developing products that allow growers to obtain a premium price for the output. . . . .	84%	94%	90%	98%	79%	68%	77%	77%	76%	85%
Having an adequate inventory of seed available when needed. . . . .	82%	93%	91%	96%	77%	69%	85%	79%	74%	79%
Research and development efforts. . . . .	82%	89%	86%	93%	78%	66%	65%	81%	73%	83%
Developing the products demanded by end-use markets. . . . .	81%	92%	85%	99%	76%	64%	68%	73%	73%	83%
Being experts in vegetable production. . . . .	81%	90%	84%	94%	78%	61%	71%	79%	74%	83%
Broad selection of varieties within crops. . . . .	81%	87%	76%	98%	78%	59%	72%	87%	75%	76%
Being a leader in introducing new and/or improved varieties. . . . .	80%	88%	79%	96%	77%	52%	65%	79%	75%	81%
Broad selection of varieties across crops. . . . .	79%	83%	70%	96%	77%	52%	63%	91%	79%	70%
Ease of doing business with. . . . .	75%	88%	85%	91%	70%	63%	77%	75%	68%	69%
Developing mutually-beneficial relationships with growers. . . . .	73%	84%	75%	92%	68%	60%	66%	79%	70%	60%
Providing local service and technical support to growers. . . . .	71%	85%	80%	90%	66%	62%	63%	71%	72%	59%
Treated like a valued customer. . . . .	70%	87%	83%	91%	63%	37%	76%	73%	75%	52%

Notes: \* Not asked of plant raisers

A majority (70-93%) of vegetable growers across the globe rated each of the key attributes as very important or important (8-10 on a 10-pt. scale). Some of the more important attributes were found to be: disease-resistant seed, seed that is clean and free of seed-borne diseases, uniformity or consistency in vegetable quality, seed varieties that are well suited for growing conditions, top

yielding varieties, consistent performance season after season, varieties that produce tasty/flavourful vegetables, germination/emergence/vigour of seed, trustworthiness/reliability, and value for money of the seed. While still important to most growers, they placed somewhat less emphasis on several of the more “service-oriented” attributes, including: ease of doing business with, developing mutually-beneficial relationships with growers, providing local service and technical support, and being treated like a valued customer. See results in Table 3.13.

In the case of Seminis (EMEA plus NAFTA), the derived importance analysis found that the attributes most strongly correlated with the overall image of the brand are: having seed varieties that are well suited for growing conditions, trustworthiness/reliability, uniformity or consistency in vegetable quality, maximising the return on investment, and being treated like a valued customer. See Table 3.14 for results. You will notice that the overall impression rating of Seminis correlated with the Seminis attribute ratings.

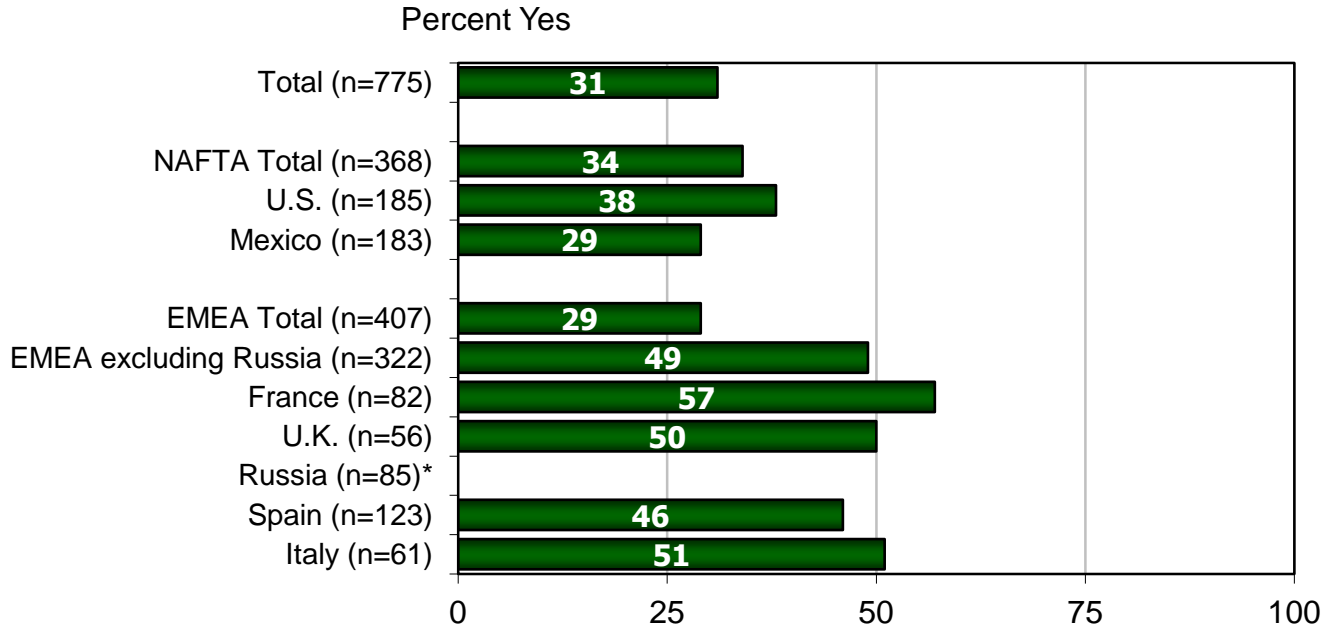
On a global basis, 31% of the vegetable growers interviewed were aware that Seminis Seed is owned by Monsanto. This ranged from 34% in NAFTA to 29% in the total EMEA, to a high of 49% for EMEA if Russia is excluded.

Most growers have a neutral to slightly positive impression of Monsanto’s ownership of Seminis. NAFTA growers have a slightly more favourable impression of Monsanto’s ownership of these brands than growers in EMEA.

**Table 3.14: Derived versus stated importance for Seminis (Base = all respondents)**

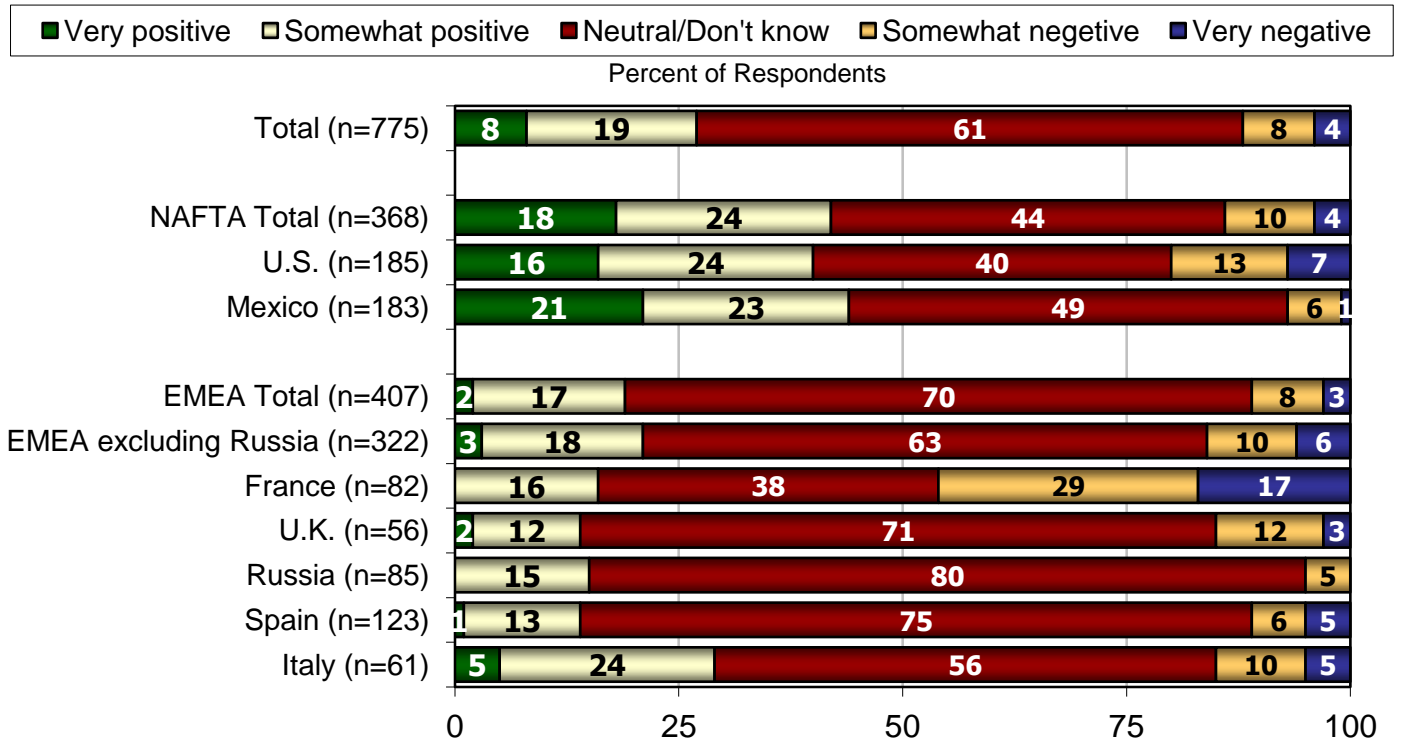
	Derived importance*		Stated Importance (8-10)		Stated Importance (10)	
	Overall impression correlation	Rank order	Percent rating	Rank order	Percent rating	Rank order
Having seed varieties that are well suited for growing conditions	0.52	1	89%	4	40%	5
Trustworthiness/reliability	0.52	2	87%	9	36%	8
Uniformity or consistency in vegetable quality	0.5	3	89%	3	31%	11
Maximise the return on investment	0.48	4	86%	11	36%	7
<i><b>Treated like a valued customer</b></i>	<i><b>0.48</b></i>	<i><b>5</b></i>	<i><b>70%</b></i>	<i><b>23</b></i>	<i><b>21%</b></i>	<i><b>20</b></i>
Having top-yielding vegetable seed varieties	0.46	6	89%	5	42%	4
Having disease-resistant seed	0.46	7	93%	1	49%	2
Developing the products demanded by end-user markets	0.46	8	81%	15	30%	12
<i><b>Being a leader in introducing new and/or improved varieties</b></i>	<i><b>0.46</b></i>	<i><b>9</b></i>	<i><b>80%</b></i>	<i><b>18</b></i>	<i><b>23%</b></i>	<i><b>19</b></i>
Consistent performance season after season	Derived importance*		Stated importance (8-10)		Stated importance (10)	
Ease of doing business with						
Being experts in vegetable production	Overall impression correlation	Rank order	Percent rating	Rank order	Percent rating	Rank order
Developing mutually-beneficial relationships with growers	0.43	13	73%	21	20%	23
Value for money of the seed	0.42	14	87%	10	37%	6
Research and development efforts	0.42	15	82%	14	23%	18
Germination, emergence, and vigour of seed	0.41	16	87%	8	44%	3
Developing products that allow growers to obtain a premium price for their output	0.41	17	84%	12	32%	10
Having an adequate inventory of seed available when needed	0.41	18	82%	13	25%	15
Broad selection of varieties within crop	0.40	19	81%	17	26%	14
Providing local service and technical support to growers	0.40	20	71%	22	21%	21
<i><b>Having seed varieties that produce tasty/flavourful vegetables</b></i>	<i><b>0.39</b></i>	<i><b>21</b></i>	<i><b>88%</b></i>	<i><b>7</b></i>	<i><b>34%</b></i>	<i><b>9</b></i>
<i><b>Having seed that is clean and free of seed-borne diseases</b></i>	<i><b>0.37</b></i>	<i><b>22</b></i>	<i><b>92%</b></i>	<i><b>2</b></i>	<i><b>51%</b></i>	<i><b>1</b></i>
Broad selection of varieties across crops	0.36	23	79%	19	24%	17

**Figure 3.2: Awareness that Seminis Seed is owned by Monsanto (Base = grower aware of Seminis)**



Notes: \* No growers from Russia were aware that Seminis/DeRuiter Seed is owned by Monsanto

**Figure 3.3: View of Monsanto's ownership of Seminis Seed (Base = growers aware of Seminis)**



### **3.5 SUMMARY**

This chapter serves as the backbone of the study. The literature review provided the design of the empirical research. The data were collected through personal interviews with vegetable growers, distributors and nursery owners in the global vegetable industry. The statistical analysis made use of descriptive techniques.

The research results concluded that, in terms of top-of-mind awareness, Seminis is in a very competitive position within the NAFTA market, but trails Nunhems and Bejo in the EMEA market. While the individual Syngenta seed brands have low unaided brand awareness, Syngenta is frequently cited, on an unaided basis, as a brand of vegetable seed in both NAFTA and EMEA. From a market presence perspective (i.e. brand awareness), Seminis is in a strong competitive position in NAFTA and is one of the most widely-known brands in EMEA.

Therefore, in developing a brand positioning, it will be important to recognise that growers are primarily making their decisions on a variety performances, and not their image of the seed company. This should not be interpreted as meaning that brand is not important, but only that the image of the brand will be viewed within the context of its products (i.e. varieties). For the most part, on a total sample basis, there is a lack of clear brand differentiation between Seminis and its top competitors in both NAFTA and EMEA.

The next and final chapter (Chapter 4) consists mainly of conclusions and recommendations to all role-players concerned. The chapter offers, apart from the final conclusions and recommendations, insight into the acceptance or rejection of the research propositions. It mentions minor problems encountered during the research and, finally, provides a summary of the research.

# CHAPTER 4

## CONCLUSIONS AND RECOMMENDATIONS

---

### 4.1 INTRODUCTION

Chapter 4 offers conclusions and recommendation relating to the findings in Chapter 3. In the final chapter of this dissertation, the discussion focuses on the conclusion of this investigation and recommendations are suggested. Conclusions are made, based on the findings and research results. The recommendations offered are a result of the conclusions drawn from the research. This chapter aims to provide an advisory framework for the Monsanto marketing team to assist them in managing the brand position and to formulate their business strategies to improve the brand position and eventually improve sales and turnover in future operations in the global vegetable industry.

### 4.2 CONCLUSIONS

The primary objective of this research was to determine how the Seminis brand is currently positioned relative to competitors within key crops in the NAFTA and EMEA regions. The findings from this research will be used to evaluate the feasibility/advisability of moving forward with the Monsanto brand for the open-field business.

#### **Conclusion 1**

In terms of top-of-mind awareness, Seminis is in a very competitive position within the NAFTA market, but trails Nunhems and Bejo in the EMEA market. While the individual Syngenta seed brands have low unaided brand awareness,

Syngenta is frequently cited, on an unaided basis, as a brand of vegetable seed in both NAFTA and EMEA.

## **Conclusion 2**

There is fairly widespread experience with the Seminis brand in NAFTA, as six out of ten (60%) growers indicated that they are either a current (40%) or past (20%) user of the brand. However, there is less direct experience with the Seminis brand in EMEA, as only 36% of growers identified themselves as current (18%) or past (18%) users of Seminis vegetable seed.

First-hand experience (current or past user) was impressive for the primary competitive brands in each region:

- NAFTA: 60% current/past user of Harris Moran and 39% current/past user of Rogers.
- EMEA: 46% current/past user of Nunhems, 39% current /past user of Bejo, and 29% current/past user of S&G.

The base of growers with actual Seminis brand experience is comparable to key competitors in NAFTA and EMEA.

## **Conclusion 3**

No particular brand, in either NAFTA or EMEA, seems to have distinguished itself in either a positive or negative manner over the past five years. That is, there is little consensus regarding any brand that has improved the most or declined the most over the past five years. Therefore, for the most part, growers are not aware of any significant shifts that have occurred relative to vegetable seed brands.



#### **Conclusion 4**

From an overall image perspective (overall impressions and likelihood of recommending), Seminis has a strong competitive position comparable to Harris Moran in the NAFTA region. Considering the entire EMEA region, Seminis is equally positioned relative to Nunhems and Bejo. However, outside of Russia, Seminis is not as well positioned as Nunhems or S&G.

#### **Conclusion 5**

During the analysis of the respondents' answers to the questions in the survey, it became clear that with the development of a brand positioning it will be important to recognise that growers are primarily making their decisions based on a variety of performances, and not their image of the seed company. This should not be interpreted as meaning that brand is not important, but only that the image of the brand will be viewed within the context of its products (i.e. varieties).

#### **Conclusion 6**

Among growers able to provide an assessment, Seminis tends to be perceived as a high-quality and higher-priced brand. This "premium" brand position is not, however, dramatically different from other major competitors.

#### **Conclusion 7**

For the most part, on a total sample basis, there is a lack of clear brand differentiation between Seminis and its top competitors in both NAFTA and EMEA. This reflects both a lack of familiarity with the brands as well as fairly

similar impressions of the brands among growers able to evaluate them. Therefore, no brand currently “owns” a differentiated position in the market; therefore, the opportunity certainly exists to establish a unique position for Seminis.

## **Conclusion 8**

Because all of the attributes included in the study were rated so high on importance, a statistical technique referred to as derived importance was used to identify the key attributes that are “driving” perceptions of Seminis. Derived importance is often a useful tool to look beyond attributes that are of obvious importance (i.e. yield or price) to identify those that are most influencing the perception of a brand. These “drivers” then represent the areas that can be most effectively leveraged to favourably affect overall impressions of the brand.

In the case of Seminis (EMEA plus NAFTA), the derived importance analysis found that the attributes most strongly correlated with the overall image of the brand are: having seed varieties that are well suited for growing conditions, trustworthiness/reliability, uniformity or consistency in vegetable quality, maximising the return on investment, and being treated like a valued customer.

Within just the NAFTA region, the derived importance analysis reveals that the most important “drivers” influencing overall perceptions of Seminis are: uniformity/consistency in vegetable quality, seed varieties well suited for growing conditions, trustworthiness, having top yielding vegetable seed varieties, and consistent performance season after season.

The results of the derived importance analysis for EMEA are strongly influenced by Russia, which tended to highly value the more service-oriented attributes. Specifically, on a total EMEA basis, the most influential attributes determining the overall image of Seminis are: treated like a valued customer, trustworthiness/reliability, maximising return on investment, developing mutually

beneficial relationships with growers, and providing local service and technical support to growers.

### **Conclusion 9**

All of the attributes addressed in the study are important to the vast majority of growers. It is unrealistic to assume that a single attribute can be a defining position for any brand. In addition, simply because growers consider a particular attribute to be very important does not suggest that it will be an important point of differentiation, especially if it is viewed as a “basic requirement” of being in the seed business.

### **Conclusion 10**

Within regions, the top brands tend to have the same basic strengths (high importance and high performance) and need to improve in generally the same areas. This emphasises the lack of brand differentiation that currently exists in the market.

### **Conclusion 11**

There seems to be little risk in linking Monsanto to Seminis and, in fact, Monsanto may be a “reason to believe” if Seminis is to be positioned around a product performance or innovation theme. The impact will be more favourable on NAFTA than on EMEA.

### **Conclusion 12**

The interaction with seed companies and their sales reps is a valuable source of information for vegetable growers and represents an important opportunity to bridge the relative emphasis placed on variety versus brand in the seed selection decision.

### **4.3 RECOMMENDATIONS**

1. Since none of the current global vegetable seed brands have distinguished themselves, Monsanto should utilise the opportunity and should aim to position a global brand that will grow brand awareness and become the first choice brand of all global vegetable growers.
2. The current Monsanto vegetable portfolio consists of various brands that were acquired over the past seven-year time frame. The company should optimise the positive perception that the growers have of the ownership of Seminis and should sell all vegetable seeds under the Monsanto brand.
3. Monsanto should differentiate their brand by ensuring sustainable performance of the brand with regard to the most important attributes according to the voice of the respondents:
  - having seed varieties that are well suited for growing conditions;
  - trustworthiness/reliability;
  - uniformity or consistency in vegetable quality;
  - maximising the return on investment; and
  - being treated like a valued customer.
4. Since growers truly value and depend on the information, leadership and advice that a seed company provides, Monsanto should optimise the opportunity by selling their vegetable seeds directly to the clients and thereby increasing exposure and contact with the growers.

#### 4.4 AREAS FOR FUTURE RESEARCH

Future studies should investigate the competitive branding strategies to determine their factors of success and also the details of their failures. This investigation concluded that currently no brand differentiation exists in the global vegetable seed industry, but it did not investigate the scope of currently applied branding strategies and what the reasons for the outcome are.

Vegetable production is strongly influenced by the consumer's perception from a consumption point of view. This investigation did not cover the influence of the overall Monsanto image and perception through the eyes of a retail consumer perception and how it will influence their point of view with regard to a brand that is highly associated with genetically manipulated crops and the influence it could have on vegetable seed that could be branded under the same brand.

#### 4.5 ACCEPTANCE OR REJECTION OF THE RESEARCH PROPOSITIONS

The research formulated four research propositions that should be either accepted or rejected as a result of the research.

P<sub>0</sub>:

Customers view Monsanto's ownership of the Seminis brand positively and the brand is one of the top two brands in the industry.

**PARTIALLY ACCEPTED:** The research clearly proved that the customers do view Monsanto's ownership of the Seminis brand positively, but the brand is not proved to be positioned as one to the top two brands in the industry, since none of the competitive brands in the global vegetable seed industry truly distinguished itself as the top brand.

P<sub>A</sub>:

Customers view Monsanto's ownership of the Seminis brand negatively and the brand is not part of the top two brands in the industry.

**PARTIALLY ACCEPTED:** The results from the investigation proved that the customers do not view Monsanto's ownership of the Seminis brand negatively, but the brand has not distinguished itself as one of the top two brands.

P<sub>1.1</sub>:

There are specific vegetable seed brand that have distinguished themselves in the mind of the customer.

**REJECTED:** The research results proved that none of the vegetable brands have distinguished themselves in the mind of the customer.

P<sub>1.2</sub>:

None of the vegetable seed brands have distinguished themselves in the mind of the customer.

**ACCEPTED:** As stated in P<sub>1</sub>, the contrary had been proved and therefore this research proposition is accepted.

P<sub>2.1</sub>:

Customers are familiar with the Seminis brand.

**ACCEPTED:** The research results proved that the Seminis brand is familiar in both the NAFTA and EMEA regions.

P<sub>2.2</sub>:

Customers are not familiar with the Seminis brand.

**REJECTED:** As stated in P<sub>2.1</sub>, the contrary had been proved and therefore this research proposition is rejected.

## **4.6 SUMMARY**

Chapter 4 consisted of research conclusions and the recommendations made concerning the strategic direction the company needs to follow to improve the ideal brand position, and actions to take to ensure brand distinction in the mind of the customer in the global vegetable seed industry. This chapter reported on the acceptance or rejection of the research propositions, highlighted areas for future research and concluded the research by means of a summary. Additional material relevant to the research, such as the measuring instruments, is attached as appendices at the end of the research report.

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# APPENDIX A: Monsanto global vegetable seed business – various brand images



## APPENDIX B: Questionnaires used by Seminis in the market research



Coding #: _____ (1-6)	Respondent First Name: _____ (7-21)
	Respondent Last Name: _____ (22-56)
	Phone: _____ (37-46)
	Respondent ID: _____ (47-52)
	Batch: _____ (53-55)
	Interview #: _____ (56-59)
	Password: _____

Quotas:	Date: _____
	Edited by: _____
	Open End checked by: _____
	Edited by: _____
	Project #: _____ 033.002.09(61)

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**IMAGE STUDY – VEGETABLE GROWERS**

**Ask for name on list.**

Hello, my name is \_\_\_\_\_ with Market Probe, a global agricultural research firm. We are conducting a study with vegetable growers and would like to include your opinions. Please be assured that your answers will be strictly confidential.

My questions will address the seed business. I will not be asking any questions about pesticides or chemical usage.

A. Are you actively involved in growing vegetables?

Yes ..... ( )  
 No ..... ( ) – **Thank and terminate**

B. Are you the individual primarily responsible for decisions concerning the vegetable seed varieties purchased for your operation?

Yes ..... ( )  
 No ..... ( ) – **Ask for referral**

Seminis Image Study – Vegetable Growers  
 Open Field  
 (033 002 09) APR 10

- |    |  |            |           |
|----|--|------------|-----------|
| C. | Do you or any member of your household:                            | <u>Yes</u> | <u>No</u> |
| a. | Work for a farm chemical manufacturer, distributor, or dealer .... | ( )-1      | ( )-2     |
| b. | Work for a vegetable seed company .....                            | ( )-1      | ( )-2     |
| c. | Sell vegetable seed .....  | ( )-1      | ( )-2     |

**[If “yes” to any > > thank and terminate.]**

- D. How many, if any, total acres do you have in open-field vegetable production? Please do not count multiple crops on the same area. I am looking for the total number of acres that you have in open-field vegetable production.

\_\_\_\_\_ **[Must have 10+ acres to qualify for “open.”]**

- E. Do you raise any vegetable crops in a protected environment – that is under glass or plastic?
- Yes .....( )-1  
 No.....( )-2 – **Skip to Q.F**

- E1. How many total square feet of protected vegetable production do you have?

\_\_\_\_\_ **[Must have 50,000+ square feet to qualify for “protected.”]**

- F. Which of the following best describes your operation?

- Grower only .....( )  
 Grower and shipper/packer .....( )  
 Plant raiser only .....( )  
 Grower and plant raiser.....( )

- G. Do you belong to a grower cooperative representing one or more of the crops you grow?

- Yes .....( )  
 No.....( )

- H. Which, if any, of the following vegetables did you produce in 2009? Did you raise any **[crop]**?
- I. **[If “yes” and “open field” >>]** How many total acres of open-field **[crop]** did you produce in 2009? Please include multiple crops per season on the same acres. That is, if you produced two crops of **onions** on a 10-acre field, that would count as 20 acres of **onions**.
- J. **[If “yes” and “protected” >>]** How many square feet of protected **[crop]** production did you have in 2009? Please include multiple crops per season. That is, if you raised two crops of tomatoes in a 25,000 square foot area, that would count as 50,000 square feet of tomatoes.

		<b>Q.H</b> <b>2009</b>		<b>Q.I</b>	<b>Q.J</b>
		<b>Yes</b>	<b>No</b>	<b>Acres</b>	<b>Square feet</b>
	Fresh market tomatoes .....	( )-1	( )-2	_____	_____
	Onions .....	( )-1	( )-2	_____	_____
	Sweet peppers .....	( )-1	( )-2	_____	_____
<b>[Mexico]</b>	Hot peppers .....	( )-1	( )-2	_____	_____
	Broccoli .....	( )-1	( )-2	_____	_____
	Melons .....	( )-1	( )-2	_____	_____
	Cauliflower .....	( )-1	( )-2	_____	_____
	Lettuce .....	( )-1	( )-2	_____	_____
	Fresh cucumbers .....	( )-1	( )-2	_____	_____
<b>[Protected]</b>	Root stock used to grow				
	a vegetable crop .....	( )-1	( )-2	_____	_____

- 1a. When you think of vegetable seed companies, what company names come to mind? Please note: I am asking about seed companies that produce and sell seed, not about specific variety or hybrid names. [**Probe:** Are you aware of any other vegetable seed companies or brands?]
- 1b. [**For each \* brand not mentioned >> ask:**] Are you aware of the \_\_\_\_\_ vegetable seed company?
- 1c. [**For each \* brand aware of in Q.1a/1b >> ask:**] Overall, how familiar would you say you are with the \_\_\_\_\_ vegetable seed company? Would you say:
- Aware of name only
  - Somewhat familiar – but never considered their seed varieties
  - Familiar – have considered their seed varieties but never planted any
  - Very familiar – have planted in the past, but not currently planting their seed varieties
  - Very familiar – currently planting their seed varieties

	Q.1a		Q.1b		----- Q.1c -----			
	<u>Unaided</u>	<u>Aided</u>		<u>Aware name only</u>	<u>Somewhat familiar never consid.</u>	<u>Familiar consid./not plant</u>	<u>Planted past</u>	<u>Currently plant</u>
		<u>Yes</u>	<u>No</u>					
* Bejo (All) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* DeRuiter Seeds (All) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* ENZA (BE/NE/Lux) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Harris Moran (US/Can/Mex) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Nickerson Zwaan (Turkey) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Nunhems (All) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Rijk Zwaan (Russia/Spain) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Rogers (NAFTA) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* S & G (EMEA) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Sakata (UK) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Seminis (All) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Syngenta .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
* Vilmorin (Clause)								
(France/Italy) .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
Other [specify] .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
_____ .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5
_____ .....	( )-1	( )-1	( )-2	( )-1	( )-2	( )-3	( )-4	( )-5

- 2a. In your opinion, what one vegetable seed company, if any, has **improved** the most over the past 5 years? **[Do NOT read.]**
- 2b. And, in your opinion, what one vegetable seed company, if any, has **declined** the most over the past 5 years? **[Do NOT read.]**

	<u>Improved</u>	<u>Declined</u>
Bejo .....	( )-1	( )-1
DeRuiter Seeds.....	( )-2	( )-2
ENZA .....	( )-3	( )-3
Harris Moran .....	( )-4	( )-4
Nickerson Zwaan .....	( )-5	( )-5
Nunhems .....	( )-6	( )-6
Rijk Zwaan.....	( )-7	( )-7
Rogers .....	( )-8	( )-8
S & G .....	( )-9	( )-9
Sakata .....	( )-10	( )-10
Seminis.....	( )-11	( )-11
Syngenta.....	( )-12	( )-12
Vilmorin (Clause) .....	( )-13	( )-13
Other <b>[specify]</b>		
.....	( )	( )
None/all the same.....	( )	( )

- 2c. In what specific ways has **[Q.2a]** vegetable seed company **improved** in recent years?

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- 2d. In what specific ways has **[Q.2b]** vegetable seed company **declined** in recent years?

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3. **[Ask for each listed brand aware of in Q.1a/Q.1b:]** What is your overall impression of \_\_\_\_\_ vegetable seed company? When answering, please use a scale of 1 to 10, where 1 is “very negative” and 10 is “very positive.”

	<b>Very negative</b>		<b>Very positive</b>
<input type="checkbox"/> a. Bejo.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> b. DeRuiter Seeds.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> c. ENZA.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> d. Harris Moran.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> e. Nickerson Zwaan.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> f. Nunhems.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> g. Rijk Zwaan.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> h. Rogers.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> i. S & G.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> j. Sakata.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> k. Seminis.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> l. Syngenta.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> m. Vilmorin (Claus).....	1	2 3 4 5 6 7 8 9 10	

4. **[Ask for each listed brand aware of in Q.1a/Q.1b:]** How likely are you to recommend \_\_\_\_\_ vegetable seed to another grower in your area? When answering, please use a scale of 1 to 10, where 1 is “not at all likely” and 10 is “very likely.”

	<b>Not at all likely</b>		<b>Very likely</b>
<input type="checkbox"/> a. Bejo.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> b. DeRuiter Seeds.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> c. ENZA.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> d. Harris Moran.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> e. Nickerson Zwaan.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> f. Nunhems.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> g. Rijk Zwaan.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> h. Rogers.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> i. S & G.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> j. Sakata.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> k. Seminis.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> l. Syngenta.....	1	2 3 4 5 6 7 8 9 10	
<input type="checkbox"/> m. Vilmorin (Clause).....	1	2 3 4 5 6 7 8 9 10	

5. [Ask for each listed brand at least somewhat familiar with.] In your opinion, what, if anything, does \_\_\_\_\_ vegetable seed company do **better** than any other seed company? And, what, if anything, **doesn't** \_\_\_\_\_ vegetable seed company **do as well** as other seed companies?

**Bejo**  
**Better:** \_\_\_\_\_  
\_\_\_\_\_

**Not as well:** \_\_\_\_\_  
\_\_\_\_\_

**DeRuiter Seeds**  
**Better:** \_\_\_\_\_  
\_\_\_\_\_

**Not as well:** \_\_\_\_\_  
\_\_\_\_\_

**Nunhems**  
**Better:** \_\_\_\_\_  
\_\_\_\_\_

**Not as well:** \_\_\_\_\_  
\_\_\_\_\_

**Rogers**  
**Better:** \_\_\_\_\_  
\_\_\_\_\_

**Not as well:** \_\_\_\_\_  
\_\_\_\_\_

( ) **S & G**  
**Better:** \_\_\_\_\_

\_\_\_\_\_  
**Not as well:** \_\_\_\_\_

\_\_\_\_\_

( ) **Seminis**  
**Better:** \_\_\_\_\_

\_\_\_\_\_  
**Not as well:** \_\_\_\_\_

\_\_\_\_\_

6a. When making seed variety decisions for your vegetable business, how much emphasis do you put on the specific variety or hybrid versus the actual seed company or brand? Please distribute 100 points between these two. That is, place more points, up to 100, on the most important consideration and fewer points, down to 0, on the less important consideration.

In terms of your seed variety selection decisions, how would you divide these 100 points between **specific variety/hybrid**, and **seed company or brand**? Your total needs to add up to 100.

**Points**

Specific variety/hybrid.....\_\_\_\_\_

Seed company or brand.....\_\_\_\_\_

**TOTAL..... 100**

[Ask Q.7a/7b for each brand aware of for qualifying crop.]

**Read:**

For the following questions, I would like for you to consider your **[selected crop]** crop.

- 7a. As it specifically relates to **[crop]**, how would you describe the overall quality of **[brand]** seed? Would you say **[brand]** has high quality, average quality, or low quality **[crop]** seed?
- 7b. As it specifically relates to **[crop]**, how would you describe the price of **[brand]** seed? Would you say **[brand]** has high priced, average priced, or low priced **[crop]** seed?

	<b>Q.7a</b>				<b>Q.7b</b>			
	<b>Quality</b>				<b>Price</b>			
	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>D/N/R Don't know</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>D/N/R Don't know</b>
Bejo .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
DeRuiter Seeds.....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
ENZA .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Harris Moran .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Nickerson Zwaan ..	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Nunhems .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Rijk Zwaan.....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Rogers .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
S & G .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Sakata .....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Seminis.....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Syngenta.....	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9
Vilmorin (Clause) ..	( )-1	( )-2	( )-3	( )-9	( )-1	( )-2	( )-3	( )-9

**Q.8abc NOT ASKED FOR PLANT RAISERS (if Q.F = 'plant raiser only').**

**[For targeted crop:]**

8a. When making decisions for the **[crop]** seed variety purchased for your farming operation, how influential are/is \_\_\_\_\_? When answering, please use a scale of 1 to 10, where 1 is "not at all influential" and 10 is "very influential."

	<b>Not at all influential</b>										<b>Very influential</b>
<input type="checkbox"/> a.	Specifications from end use markets/retailers ....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> b.	Specifications from processors/middlemen .....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> c.	Recommendations from seed dealers.....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> d.	Recommendations from seed companies.....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> e.	Recommendations from other growers.....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> f.	Trial results of new varieties.....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> g.	Experience with seed company.....	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> h.	Recommendations from young plant raiser .....	1	2	3	4	5	6	7	8	9	10

8b. Which of these non-performance related factors most influences your purchase decisions on **[crop]** seed variety? Would you say: **[insert top 3 rated items in Q.8a.]**?

8c. What would be the second most influential factor?

	<b>Most influential</b>	<b>Second most influential</b>
<input type="checkbox"/> a.	Specifications from end use markets/retailers .....	( )-1
<input type="checkbox"/> b.	Specifications from processors/middlemen .....	( )-2
<input type="checkbox"/> c.	Recommendations from seed dealers.....	( )-3
<input type="checkbox"/> d.	Recommendations from seed companies.....	( )-4
<input type="checkbox"/> e.	Recommendations from other growers.....	( )-5
<input type="checkbox"/> f.	Trial results of new varieties.....	( )-6
<input type="checkbox"/> g.	Experience with seed company.....	( )-7
<input type="checkbox"/> h.	Recommendations from young plant raiser .....	( )-8

9. Ask for maximum of 3 brands respondent is at least somewhat familiar with. Brand priorities are:

- Seminis .....Priority 1
- DeRuiter Seeds .....Priority 2
- Rogers (NAFTA) / S & G (EMEA).....Priority 3
- Nunhems .....Priority 4
- Bejo.....Priority 5
- Country specific .....Priority 6
- ENZA (BE/NE/Lux)
- Harris Moran (US/Can/Mex)
- Nickerson Zwaan (Turkey)
- Rijk Zwaan (Russia/Spain)
- Sakata (UK)
- Vilmorin (Claus Tezier) (France/Italy)

Set quotas for 3-5 to balance number of ratings.

[Rotate brand presentation by respondent, but keep order consistent for a particular respondent.]

9a. For the following question, please focus on your [crop] production. Using a scale of 1 to 10, where 1 is “very poor” and 10 is “very good,” how would you rate [brand] in regards to [attribute]? And, how would you rate [brand] on this characteristic? And what about [brand]?

	<u>Seminis</u>	<u>DeRuiter Seeds</u>	<u>Rogers/ S &amp; G</u>	<u>Nunhems</u>	<u>Bejo</u>	<u>Country specific</u>
<input type="checkbox"/> a. Having top yielding vegetable seed varieties.....	___	___	___	___	___	___
<input type="checkbox"/> b. Germination, emergence, and vigor of seed.....	___	___	___	___	___	___
<input type="checkbox"/> c. Having seed that is clean and free of seed-borne diseases ..	___	___	___	___	___	___
<input type="checkbox"/> d. Having disease-resistant seed .....	___	___	___	___	___	___
<input type="checkbox"/> e. *Providing local service and technical support to growers .....	___	___	___	___	___	___
<input type="checkbox"/> f. Being experts in vegetable production .....	___	___	___	___	___	___
<input type="checkbox"/> g. Having an adequate inventory of seed available when I need it.....	___	___	___	___	___	___
<input type="checkbox"/> h. *Ease of doing business with .....	___	___	___	___	___	___
<input type="checkbox"/> i. Research and development efforts .....	___	___	___	___	___	___

<input type="checkbox"/> j.	Being a leader in introducing new and/or improved varieties .....	___	___	___	___	___
<input type="checkbox"/> k.	*Trustworthiness/reliability .....	___	___	___	___	___
<input type="checkbox"/> l.	Developing mutually-beneficial relationships with growers .....	___	___	___	___	___
<input type="checkbox"/> m.	*Developing the products demanded by end-use markets .....	___	___	___	___	___
<input type="checkbox"/> n.	*Treating you like a valued customer .....	___	___	___	___	___
<input type="checkbox"/> o.	*Maximizing your return on investment .....	___	___	___	___	___
<input type="checkbox"/> p.	Developing products that allow growers to obtain a premium price for their output .....	___	___	___	___	___
<input type="checkbox"/> q.	Having seed varieties that produce tasty/flavorful vegetables .....	___	___	___	___	___
<input type="checkbox"/> r.	Uniformity or consistency in vegetable quality .....	___	___	___	___	___
<input type="checkbox"/> s.	Value of the seed for the money .....	___	___	___	___	___
<input type="checkbox"/> t.	Having seed varieties that are well suited for my growing conditions .....	___	___	___	___	___
<input type="checkbox"/> u.	Consistent performance season after season .....	___	___	___	___	___
<input type="checkbox"/> v.	Broad selection of varieties within <b>[insert crop]</b> .....	___	___	___	___	___
<input type="checkbox"/> w.	Broad selection of varieties across crops .....	___	___	___	___	___

**Items a / p / q NOT ASKED FOR PLANT RAISERS (if Q.F = 'plant raiser only').**

9b. [For \* attributes with 1-6 or 9-10 ratings for Seminis >> ask:] Why did you rate Seminis vegetable seed company [especially low/especially high] in regards to \_\_\_\_\_ ?

\*Providing service and support to growers \_\_\_\_\_  
\_\_\_\_\_

\*Ease of doing business with \_\_\_\_\_  
\_\_\_\_\_

\*Trustworthiness/honesty \_\_\_\_\_  
\_\_\_\_\_

\*Developing the products demanded by end-use markets \_\_\_\_\_  
\_\_\_\_\_

\*Treating you like a valued customer \_\_\_\_\_  
\_\_\_\_\_

\*Maximizing your return on investment \_\_\_\_\_  
\_\_\_\_\_



10a As a reason for purchasing one brand of **[crop]** seed variety over another, how important is \_\_\_\_\_? When answering, please use a scale of 1 to 10, where 1 is “not at all important” and 10 is “very important.”

	<u>Not at all</u> <u>important</u>	<u>Very</u> <u>important</u>
<input type="checkbox"/> a. Having top yielding vegetable seed varieties.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> b. Germination, emergence, and vigor of seed .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> c. Having seed that is clean and free of seed-borne diseases .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> d. Having disease-resistant seed .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> e. *Providing local service and technical support to growers.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> f. Being experts in vegetable production.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> g. Having an adequate inventory of seed available when I need it.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> h. *Ease of doing business with.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> i. Research and development efforts .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> j. Being a leader in introducing new and/or improved varieties.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> k. *Trustworthiness/reliability .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> l. Developing mutually-beneficial relationships with growers.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> m. *Developing the products demanded by end-use markets .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> n. *Treating you like a valued customer .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> o. *Maximizing your return on investment.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> p. Developing products that allow growers to obtain a premium price for their output .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> q. Having seed varieties that produce tasty/flavorful vegetables.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> r. Uniformity or consistency in vegetable quality ..1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> s. Value of the seed for the money .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> t. Having seed varieties that are well suited for my growing conditions .....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> u. Consistent performance season after season.....1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> v. Broad selection of varieties within <b>[insert crop]</b> 1	2	3 4 5 6 7 8 9 10
<input type="checkbox"/> w. Broad selection of varieties across crops.....1	2	3 4 5 6 7 8 9 10

**Items a / p / q NOT ASKED FOR PLANT RAISERS (if Q.F = ‘plant raiser only’).**

**Q.10b NOT ASKED FOR PLANT RAISERS (if Q.F = 'plant raiser only').**

10b. When you make your decisions regarding which seed variety to purchase, which of the following aspects or components of yield do you consider to be most important? **[Read list.]** Which would be second most important? **[Read remaining list.]** And, which would be third most important? **[Read remaining list.]**

	<u>Most</u>	<u>2<sup>nd</sup></u>	<u>3<sup>rd</sup></u>
<input type="checkbox"/> a. Tonnage.....	( )-1	( )-2	( )-3
<input type="checkbox"/> b. Marketable yield – product that you can sell .....	( )-1	( )-2	( )-3
<input type="checkbox"/> c. High quality yield .....	( )-1	( )-2	( )-3
<input type="checkbox"/> d. Consistency of yield.....	( )-1	( )-2	( )-3
<input type="checkbox"/> e. Incrementally higher yield from one season to the next .....	( )-1	( )-2	( )-3
<input type="checkbox"/> f. Yield to match my growing conditions (climate, soil, location) .....	( )-1	( )-2	( )-3

**[If aware of Seminis and/or DeRuiter >> ask Q.11. If not >> skip to Q.12a.]**

11a. Please rate your feelings towards the following companies on a scale of 0 to 100, with 100 meaning you “have a very warm and favorable feeling,” 0 meaning you “have a very cold and unfavorable feeling,” and 50 meaning you “don’t have a particularly warm or cold feeling.” On a scale of 0 to 100, how do you feel about \_\_\_\_\_ ?

**Rotate**

- a. Monsanto.....
- b. Syngenta.....
- c. Bayer.....

11b. Are you aware that Seminis Seed and DeRuiter Seeds, including [**country-specific Legacy brand®**] is owned by Monsanto?

- Yes .....( )-1
- No.....( )-2

\* Peto Seed (Southern Europe)  
 Asgrow Vegetable Seed (U.S./Canada)  
 Royal SLuis (North & Eastern Europe)  
 Bruinsma (???)  
 Poloni (France)  
 Western Seed (Holland)  
 Peotec Seeds (Italy)

11c. Overall, do you view Monsanto’s ownership of Seminis and DeRuiter Seeds as:

- Very positive .....( )-1
- Somewhat positive .....( )-2
- Neutral.....( )-3 – **Skip to Q.12**
- Somewhat negative .....( )-4
- Very negative .....( )-5

11d. Why do you consider the Monsanto-Seminis-DeRuiter Seeds relationship to be **[positive/negative]**?

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11e. To what extent, if at all, do you agree that Monsanto's research and development efforts in the areas of \_\_\_\_\_ will reap important benefits for vegetable growers? **[Read statement.]**  
Would you:

- Strongly agree
- Agree somewhat
- Disagree somewhat
- Strongly disagree

	<b>Strongly agree</b>	<b>Agree somewhat</b>	<b>Disagree somewhat</b>	<b>Strongly disagree</b>
<input type="checkbox"/> a. Plant genetics .....	( )-1	( )-2	( )-3	( )-4
<input type="checkbox"/> b. Disease resistance .....	( )-1	( )-2	( )-3	( )-4
<input type="checkbox"/> c. Insect resistance .....	( )-1	( )-2	( )-3	( )-4
<input type="checkbox"/> d. Biotechnology .....	( )-1	( )-2	( )-3	( )-4
<input type="checkbox"/> e. Drought resistance .....	( )-1	( )-2	( )-3	( )-4

- 12a. **[For targeted crop.]** What brands of **[crop]** seed varieties did you plant in 2009? Again, I am referring to the seed company, not specific varieties or hybrids. Did you plant any **[crop]** seed varieties from **[company]**? **[Probe: Any others?]** **[DO NOT READ LIST.]**
- 12b. **[For each Q.12a brand:]** What percent of your total **[crop]** seed variety purchases were from **[brand]** in 2009?
- 12c. **[For each brand planted in 2009:]** Do you purchase **[brand]** seed direct from the seed company or from a dealer/distributor/plant raiser?

	Q.12a Planted 2009		Q.12b %	Q.12c	
	Yes	No	Purchases	Direct	Indirect
Bejo .....	( )-1	( )-2	_____	( )-1	( )-2
DeRuiter Seeds.....	( )-1	( )-2	_____	( )-1	( )-2
ENZA .....	( )-1	( )-2	_____	( )-1	( )-2
Harris Moran.....	( )-1	( )-2	_____	( )-1	( )-2
Nickerson Zwaan .....	( )-1	( )-2	_____	( )-1	( )-2
Nunhems .....	( )-1	( )-2	_____	( )-1	( )-2
Rijk Zwaan.....	( )-1	( )-2	_____	( )-1	( )-2
Rogers .....	( )-1	( )-2	_____	( )-1	( )-2
S & G .....	( )-1	( )-2	_____	( )-1	( )-2
Sakata.....	( )-1	( )-2	_____	( )-1	( )-2
Seminis.....	( )-1	( )-2	_____	( )-1	( )-2
Syngenta.....	( )-1	( )-2	_____	( )-1	( )-2
Vilmorin (Claus).....	( )-1	( )-2	_____	( )-1	( )-2
Other [specify]					
.....	( )-1	( )-2	_____	( )-1	( )-2
.....	( )-1	( )-2	_____	( )-1	( )-2
.....	( )-1	( )-2	_____	( )-1	( )-2

**Q.13 NOT ASKED FOR PLANT RAISERS (if Q.F = 'plant raiser only').**

13. Which of the following statements best describes your typical approach to trying new products and practices?
- I am one of the first growers in my area to try new products or practices.....( )-1
- I tend to wait until other growers have tried new products or practices, but then will not hesitate to try them on my farm.....( )-2
- I wait until new products or practices are well established and proven before adding them to my farm.....( )-3

- 14a. Within the past 12 months, have you obtained information about vegetable seed varieties:  
 14b. From what source would you most prefer to receive information on vegetable seed varieties?

		<b>Q.14a</b>		<b>Q.14b</b>
		<u>Yes</u>	<u>No</u>	<u>Most</u>
a.	Directly from a seed company sales rep .....	( )-1	( )-2	( )-1
b.	From direct mail sent to you by a seed company.....	( )-1	( )-2	( )-2
c.	From vegetable industry publications or magazines.....	( )-1	( )-2	( )-3
d.	From seed company Web sites .....	( )-1	( )-2	( )-4
e.	From consulting company Web sites.....	( )-1	( )-2	( )-5
f.	By attending field days or grower meetings organized by seed companies .....	( )-1	( )-2	( )-6
g.	From other growers.....	( )-1	( )-2	( )-7
h.	From social media such as blogs, Twitter, YouTube, and LinkedIn among others .....	( )-1	( )-2	( )-8
i.	From young plant raisers .....	( )-1	( )-2	( )-9

Other [specify]

\_\_\_\_\_ ( )

\_\_\_\_\_ ( )

\_\_\_\_\_ ( )

**END**

That's all my questions. Thank you very much for your help.

## APPENDIX C: Results from survey measuring familiarity of respondents with competitor companies

### *Familiarity With Nunhems*

	<u>Not aware</u>	<u>Name only</u>	<u>Familiar/ never considered</u>	<u>Familiar/ considered</u>	<u>Past user</u>	<u>Current user</u>
<b>Total Open Field (n=1,177) . . . . .</b>	<b>38%</b>	<b>10%</b>	<b>6%</b>	<b>8%</b>	<b>14%</b>	<b>24%</b>
<b>NAFTA Total (n=475) . . . . .</b>	<b>63%</b>	<b>11%</b>	<b>4%</b>	<b>4%</b>	<b>8%</b>	<b>10%</b>
U.S. (n=223) . . . . .	53%	12%	5%	5%	10%	15%
Mexico (n=252) . . . . .	72%	11%	4%	3%	5%	5%
<b>EMEA Total (n=702) . . . . .</b>	<b>28%</b>	<b>10%</b>	<b>7%</b>	<b>9%</b>	<b>17%</b>	<b>29%</b>
<b>EMEA excluding</b>						
<b>Russia (n=599) . . . . .</b>	<b>33%</b>	<b>10%</b>	<b>4%</b>	<b>2%</b>	<b>20%</b>	<b>31%</b>
France (n=151) . . . . .	42%	18%	1%	3%	15%	21%
U.K. (n=99) . . . . .	73%	13%	1%	--	10%	3%
Russia (n=103) . . . . .	16%	8%	13%	27%	11%	25%
Spain (n=200) . . . . .	24%	13%	1%	1%	24%	37%
Italy (n=149) . . . . .	36%	7%	7%	2%	18%	30%

## *Familiarity With Bejo*

	<u>Not aware</u>	<u>Name only</u>	<u>Familiar/ never considered</u>	<u>Familiar/ considered</u>	<u>Past user</u>	<u>Current user</u>
<b>Total Open Field (n=1,177)</b> . . . . .	<b>49%</b>	<b>10%</b>	<b>4%</b>	<b>5%</b>	<b>14%</b>	<b>18%</b>
<b>NAFTA Total (n=475)</b> . . . . .	<b>71%</b>	<b>10%</b>	<b>3%</b>	<b>2%</b>	<b>7%</b>	<b>7%</b>
U.S. (n=223) . . . . .	55%	14%	6%	2%	11%	12%
Mexico (n=252) . . . . .	87%	5%	1%	1%	4%	2%
<b>EMEA Total (n=702)</b> . . . . .	<b>39%</b>	<b>11%</b>	<b>4%</b>	<b>7%</b>	<b>17%</b>	<b>22%</b>
<b>EMEA excluding</b>						
<b>Russia (n=599)</b> . . . . .	<b>54%</b>	<b>15%</b>	<b>5%</b>	<b>2%</b>	<b>10%</b>	<b>14%</b>
France (n=151) . . . . .	56%	14%	1%	3%	11%	15%
U.K. (n=99) . . . . .	38%	20%	--	2%	21%	19%
Russia (n=103) . . . . .	5%	2%	--	18%	35%	40%
Spain (n=200) . . . . .	50%	16%	5%	1%	14%	14%
Italy (n=149) . . . . .	56%	13%	6%	3%	7%	15%

## *Familiarity With \*\*Rogers/S&G*

	<u>Not aware</u>	<u>Name only</u>	<u>Familiar/ never considered</u>	<u>Familiar/ considered</u>	<u>Past user</u>	<u>Current user</u>
<b>Total Open Field (n=1,177)</b> . . . . .	<b>45%</b>	<b>12%</b>	<b>6%</b>	<b>5%</b>	<b>14%</b>	<b>18%</b>
<b>NAFTA Total (n=475)</b> . . . . .	<b>35%</b>	<b>16%</b>	<b>5%</b>	<b>5%</b>	<b>20%</b>	<b>19%</b>
U.S. (n=223) . . . . .	17%	15%	4%	6%	24%	34%
Mexico (n=252) . . . . .	52%	17%	5%	3%	17%	6%
<b>EMEA Total (n=702)</b> . . . . .	<b>49%</b>	<b>11%</b>	<b>6%</b>	<b>5%</b>	<b>11%</b>	<b>18%</b>
<b>EMEA excluding</b>						
<b>Russia (n=599)</b> . . . . .	<b>38%</b>	<b>14%</b>	<b>7%</b>	<b>2%</b>	<b>15%</b>	<b>24%</b>
France (n=151) . . . . .	48%	15%	1%	2%	13%	21%
U.K. (n=99) . . . . .	30%	26%	--	1%	20%	23%
Russia (n=103) . . . . .	77%	3%	5%	12%	1%	2%
Spain (n=200) . . . . .	34%	26%	5%	--	17%	18%
Italy (n=149) . . . . .	38%	6%	9%	3%	15%	29%

Notes: \*\*Rogers – NAFTA (Syngenta); S&G – EMEA (Syngenta)



# *Familiarity With Harris Moran*

	<u>Not aware</u>	<u>Name only</u>	<u>Familiar/ never considered</u>	<u>Familiar/ considered</u>	<u>Past user</u>	<u>Current user</u>
<b>NAFTA Total (n=475)</b> . . . . .	<b>17%</b>	<b>10%</b>	<b>6%</b>	<b>7%</b>	<b>25%</b>	<b>35%</b>
U.S. (n=223) . . . . .	11%	11%	5%	8%	27%	38%
Mexico (n=252) . . . . .	22%	9%	7%	5%	24%	33%

*Notes: Only in NAFTA market*

**APPENDIX D: Results from survey measuring perceived strengths of respective competitor seed companies over other vegetable seed companies.**

*Perceived Strengths Of Bejo  
Over Other Vegetable Seed Companies - Unaided*

- Mentions of 5% or more -

	<u>NAFTA</u> (n=89)	<u>EMEA</u> (n=296)
Cabbage seed . . . . .	14%	2%
More available varieties . . . . .	11%	4%
Soil/climate adaptability . . . . .	7%	1%
Onion seed . . . . .	6%	1%
Length of harvest cycle/maturity . . . . .	5%	--
Quality seeds . . . . .	4%	21%
Good yield . . . . .	2%	6%
Development of new varieties. . . . .	--	7%
Germination . . . . .	--	7%
Nothing/don't know . . . . .	30%	24%

## ***Perceived Strengths Of Harris Moran Over Other Vegetable Seed Companies - Unaided***

**- Mentions of 5% or more -**

	<b><u>U.S</u> (n=171)</b>
More available varieties . . . . .	8%
Research and development . . . . .	6%
Pumpkins seed . . . . .	6%
Advertising/marketing/promotions . . . . .	5%
Nothing/don't know . . . . .	35%

Notes: Only asked in U.S.

## ***Perceived Strengths Of Nunhems Over Other Vegetable Seed Companies - Unaided***

**- Mentions of 5% or more -**

	<b><u>NAFTA</u> (n=121)</b>	<b><u>EMEA</u> (n=364)</b>
Quality seeds . . . . .	14%	9%
More available varieties . . . . .	12%	5%
Melons/cantaloupe seed . . . . .	5%	5%
Onion seed . . . . .	5%	1%
Good yield . . . . .	4%	8%
Development of new varieties . . . . .	3%	6%
Nothing/don't know . . . . .	33%	35%

## *Perceived Strengths Of Rogers/S&G Over Other Vegetable Seed Companies - Unaided*

- Mentions of 5% or more -

	<u>NAFTA</u> (n=230)	<u>EMEA</u> (n=364)
More available varieties . . . . .	9%	7%
Quality seeds. . . . .	9%	15%
Sweet corn/corn . . . . .	6%	--
Disease resistant . . . . .	6%	1%
Development of new varieties. . . . .	5%	1%
Pepper seed . . . . .	3%	5%
New technology/genetics/breeding . . . . .	1%	5%
Nothing/don't know . . . . .	35%	37%