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Preface

Eating more fruit and vegetables contributes to healthier consumers with a higher life expectancy. Not only is this great news for consumers themselves, but also for the entire fruit and vegetable supply chain; from seed breeders to retailers. Even the government will ultimately profit, as a healthier population needs less care, which automatically leads to lower healthcare costs.

Unfortunately, reality is far less rosy. For example, an increase in lifestyle diseases like obesity and diabetes leads to higher healthcare costs. Research from 2023 by Statistic Netherlands (CBS)ⁱ shows that 36% of Dutch adults want to eat healthier. At the same time, 46% of those surveyed, mention they are sometimes encouraged by others to make unhealthy food choices and nearly 40% finds it difficult to ignore unhealthy options. Not an easy task, as fast, simple, and often unhealthy food is available everywhere, leaving less room for healthy alternatives.



More than half of those wanting to make healthier food choices, states that reducing health risks or diseases is their biggest motivation. 28% states they want to feel physically fitter and for 10% a more attractive appearance, losing weight or maintaining a healthy weight is the reason to opt for healthy food.

Still, with a consumption of 349 grams^{||} of fruit and vegetables, the average European consumer does not get the minimum of 400 grams^{|||} of fruit and vegetables a day, recommended by the World Health Organization (WHO). In the Netherlands this is even lower with an average daily consumption of only 285 grams. But encouraging consumers isn't easy. Recent research by the Erasmus University^{||} shows that awareness campaigns for healthy food do not have the desired effect. Consumers regard the advice as patronising and feel limited in their personal freedom of choice. Thus, many campaigns seem counterproductive.

There are other ways to stimulate the consumption of fruit and vegetables. And the supermarket is the perfect place to do this. But to positively influence eating and buying behaviour, you need up-to-date shopper insights. Where, when, and how do consumers make purchasing decisions? Why do or don't they choose a specific type of vegetable? Why do they visit a specific retailer? How can shelf displays in a supermarket be optimally arranged in order to better assist them?

To answer these questions, Growers United has been conducting extensive international research for several years, amongst 17.500 consumers in the Netherlands, Germany, Poland, Sweden, and the United Kingdom. The results that GfK – global leader in consumer insights – provides, not only show differences between specific types of vegetables, but also between countries and even between retailers. To gain a better understanding, Growers United compares recent results from 2023 with earlier results, as it shows how buying behaviour has changed in the past years.





What motivates consumers in their food choices?

As a result of the rising prices of, among others, groceries, consumers have become more critical of how much they spend in the supermarket. Therefore, we notice an increasing share in private labels, and special offers and promotions – both in-store and online – becoming more important.

Due to current inflation rates, consumers tend to look for savings. For example: 62% of Dutch consumers says they compare retail prices more often and 49% states they wait for potential offers and promotions. An additional misconception is the belief that healthy food costs more than unhealthy alternatives. In the aforementioned research by Statistic Netherlands (CBS) from 2023, 17% of consumers claim not having the means to purchase healthy products.

Growers United's shopper research shows that the share of aspects like 'price' and 'on offer' has grown. Still, an appealing product range – does it 'seem tasty' or 'look fresh' – remains the most important motivation when purchasing vegetables.



How important are these aspects when purchasing vegetables?

Top 2	DE		UK		NL	
	2020	2023	2020	2023	2020	2023
Will taste good	94%	91%	94%	92%	95%	92%
Looks good	87%	85%	87%	86%	87%	84%
Looks fresh	84%	83%	89%	87%	87%	83%
Price	70%	77% 🕇	80%	85% 🕇	72%	77% 🕇
On offer	50%	61% 🕇	48%	55% 🕇	49%	61% 🕇

Source: Growers United shopper research

As consumers are more critical of retail prices, the percentage that states 'health' as a motivation for their food choice slightly decreases, while the percentage that uses 'convenience' slightly increases. It is encouraging though, that most shoppers – approximately 60% – state that when they are asked to choose between the two motives 'health' or 'convenience' they would still choose 'health'.

Shoppers stating health as most important motivation

	2020	2023
DE	16%	15% ↓
UK	19%	16% ↓
NL	19%	17% ↓



Shoppers stating convenience as most important motivation

	2020	2023
DE	31%	33% 🕇
UK	34%	39% 🕇
NL	36%	39% 🕇

Source: Growers United shopper research

If we combine the motives 'health' and 'convenience', opportunities arise to encourage consumers to eat healthier. A successful marketing strategy that could be used here is 'nudging', or, giving shoppers a gentle push in the right direction. An experiment by the National Action Plan Fruit and Vegetables (NAGF) and its partners^{vi}, in which retailers used communication through banners, posters, stickers, and shelf signage, showed that nudging can have a positive effect on fruit and vegetables sales. In addition, communication concerning retail prices can also be optimised, to remind shoppers that healthy food should not have to be more expensive.







When do consumers make a purchasing decision?

An average of 60% of shoppers surveyed by Growers United, already decides at home which type of vegetable will be purchased. The remaining 40% gets persuaded in-store, to purchase a specific type of vegetable. For this last group, aspects like the retailer's product range, shelf display presentation, stock, retail price, but also the instore marketing and communication, directly influences their final decision.



The shopper research results show clear distinctions between countries and types of vegetables. In the United Kingdom for example, the purchase of bell peppers has already been decided at home in 80% of the cases, while in Germany this is only 68%. For pointed peppers, 56% of German shoppers gets persuaded in-store, to purchase this variant. These percentages show that pointed peppers are more open to impulse buying, so marketing and communication, special offers and promotions, and placement of a product – in an endaisle display, for example – will prove relatively effective.

Compared to three years ago, recent research results show that Dutch and German shoppers increasingly postpone choosing a specific type of vegetable until they are visiting the supermarket. This insight provides an opportunity to, together with retailers, encourage and inspire consumers in-store to make a purchase. And since people have become more price-conscious, aspects like retail price, special offers, and promotions are currently even more important.

Shoppers making vegetable purchasing decision at home or in supermarket

DE	2020	2023
Specific vegetable decided at home:	58%	55% ↓
General vegetable decided at home:	30%	32% 🕇
No previously made decided at home:	11%	13% 🕇

NL	2020	2023
Specific vegetable decided at home:	67%	64% ↓
General vegetable decided at home:	15%	17% 🕇
No previously made decided at home:	18%	19% 🕇



What stimulates or sabotages the purchase of aubergines?

There are various reasons why shoppers will or will not choose a specific vegetable. Next to their personal preference for a certain taste, the results of the shopper research not only not only show clear differences between specific types of vegetables, but also between countries.

In the Netherlands for example, more than 50% of shoppers states that they primarily purchase aubergines because these are part of a recipe. In the United Kingdom too, recipes are the most important motivation to purchase aubergines. Whereas for German shoppers, aubergines are the perfect vegetable to create more variation in their weekly menu. Insights like these prove very valuable for retailers, when launching targeted marketing and communication campaigns on a national level. More knowledge of a target group provides opportunities to successfully reach it, which ultimately leads to successful sales.

What motivates you to purchase aubergines?

Aubergine buyers	DE	UK	NL
Part of a recipe	28%	41%	52%
Easy to use	32%	37%	30%
Enjoy the taste	33%	34%	30%
To create variation	35%	21%	27%



Next to insights why shoppers dó select a specific vegetable, the reason why they dón't select a specific vegetable is equally important. The main reason for shoppers not to purchase aubergines appears to be personal taste. This, even though aubergines have a relatively neutral flavour, making them the perfect vegetable to add herbs and spices to. Also, not knowing how to prepare or use aubergines keeps these shoppers from making a purchase.

27% of shoppers in the Netherlands that states not to purchase aubergines, says they do not know how to use aubergines. 18% of Dutch shoppers does not know how to prepare this vegetable. And for 24% of shoppers in the Netherlands as well as in the United Kingdom, aubergines are not top of mind when creating their shopping list or visiting the supermarket.

Why don't you purchase aubergines?

Aubergine non-buyers	DE	UK	NL
Doesn't like the taste	51%	55%	62%
Doesn't know how to prepare	17%	16%	18%
Doesn't know how to use	14%	15%	27%
Not top of mind	8%	24%	24%

Source: Growers United shopper research

These insights show that by inspiring and encouraging shoppers – for example, with targeted communication and appealing recipes – opportunities arise to convince them to start cooking with aubergines. And maybe this extra encouragement helps set the tone for them to purchase aubergines more often.





What stimulates or sabotages the purchase of sweet pointed peppers?

Another vegetable that could use some extra encouragement is the sweet pointed pepper. 42% of Dutch shoppers and 38% of shoppers in the United Kingdom mentions they simply do not think of purchasing sweet pointed peppers prior to and during their supermarket visit.

Here too, increased visibility could be the answer; both at the produce department and on shelf displays, as well as in appealing recipes and other inspiring means of communication. In addition, special offers and promotions but also placement in an end-aisle display prove effective to encourage impulse buying.

Of the German consumers surveyed, a relatively large number states they do not like the taste of pointed peppers. Important to note here, is that in many German shelf displays no distinction is being made between the Hungarian (non-sweet) pointed pepper and the sweet pointed pepper. Both variants are presented as Spitzpaprika. Chances are that consumers that previously purchased the Hungarian pointed pepper and did not appreciate its taste, now ignore the sweet pointed pepper too. In this case, clear communication which highlights the sweet taste, will increase consumers' knowledge and sales opportunities at the same time.





Points of improvement based on shopper knowledge could stimulate sales

Next to questions about taste, use and preparation of specific types of vegetables, the international shoppers surveyed in Growers United's research were also asked which points of improvement could increase sales opportunities. The answers show distinct differences between countries, which provides opportunities to stimulate vegetable sales on a national level.



One point of improvement that is often mentioned is the use of plastic packaging. Here too, distinct differences are visible between countries. 19% of Dutch shoppers regards the use of plastic as an opportunity for improvement. German consumers are generally more focused on sustainability. Something that is clearly visible in their answers; 29% states they prefer packaging – of tomatoes for example – without plastic. In addition, the use of organic agriculture is also considered an point of improvement, particularly in Germany. 13% of German shoppers finds this important, as opposed to 8% of shoppers in the United Kingdom and 6% of Dutch shoppers.

The time of day when consumers eat tomatoes also provides opportunities for extra sales. Where Dutch shoppers (78%) mainly eat tomatoes at dinner, Polish shoppers just as easily eat tomatoes for breakfast (76%). An additional advantage of eating tomatoes early in the morning, is that it encourages the consumption of the daily amount of fruit and vegetables advised by the WHO. By eating tomatoes for breakfast, shoppers set the tone for making healthy food choices.

When do you eat tomatoes?

	Breakfast	Lunch	Dinner	Morning snack	Afternoon snack	Late night snack
DE	30%	46%	80%	16%	27%	7%
UK	11%	69%	70%	9%	20%	4%
NL	7%	46%	78%	13%	24%	9%
SE	25%	58%	83%	13%	20%	9%
POL	76%	43%	70%	23%	27%	8%





Optimal presentation, positioning, and placement of products

Studies show that when standing in front of a shelf display, the average consumer should find a specific product within 13 seconds^{vii} for a purchase to succeed or not. Also, when it comes to product categories, most consumers can only remember a limited product range. If they cannot find or at least spot the product they are looking for within this time frame, chances are they will not purchase anything.



Consumers often purchase intuitively and on automatic pilot. The layout of the supermarket, the customer flow, the presentation on shelf displays, and strategic placement like an end-aisle display could be considered 'silent salesmen' of products. Consumers can be encouraged to make an impulse purchase if they encounter products they might not expect on their journey, but which still seem appealing due to placement, presentation, (additional) communication, special offer or promotion.

In most supermarkets, the produce department is strategically placed at the start of the customer flow. This means that the vegetables selected by consumers at that moment, often determine the meals that will eventually be prepared at home. The continuation of their customer flow is also determined by these vegetables, as the other products that are being bought should be complementary. Therefore, it is important that all products are easy to find at a location where consumers expect them to be. If not, chances are that consumers leave the supermarket with less or no purchases at all.

With the produce department (often) marking the start of the customer flow opportunities arise. Particularly as at this point, consumers are often inspired to purchase specific types of vegetables. Take loose, small tomatoes for example. When consumers are asked what inspires them to purchase these vegetables, 40% replies that the product range and presentation on shelf displays persuade them. Both in the Netherlands and in the United Kingdom, the importance of shelf displays has grown in the past years.

What inspires you to purchase this vegetable?

Source of inspiration	DE		UK		NL	
Loose, small tomatoes	2020	2023	2020	2023	2020	2023
Produce department / shelf displays	35%	40% 🕇	33%	40% 🕇	42%	39%
Family/friends/ acquaintances	27%	31%	25%	29%	24%	38% 🕇
Part of a recipe	29%	27%	33%	26%	34%	26%





Consumer decision tree for tomato assortment and shelf advice

What if consumers visit a supermarket for a specific reason – for example, to purchase loose, small tomatoes – but upon arrival, these products seem out of stock?In this case, nearly 30% of Dutch shoppers states they will exit the supermarket. In Germany, consumers will try to find an alternative, but at the same time, 20% of those surveyed still exits the supermarket without having purchased any tomatoes.



A missed opportunity for retailers and suppliers. But also, for consumers themselves. To prevent such a situation from happening, it is important to gain insight in the through process of shoppers and the way they make their (purchasing) decisions. Therefore, Growers United uses a so-called consumer decision tree (CDT) as part of its shopper research, which maps the hierarchy of a purchasing process. It provides answers to questions like 'Which products do shoppers expect at which location in the supermarket?' 'Which products are related, according to shoppers?' 'Where on shelf displays, do shoppers expect to find these products together?'

Take the tomato, for example. To decide which variant will ultimately be purchased, the average shopper starts with the factor taste. Think of aromatic, fresh or sweet. Subsequently, the size of a tomato is of importance; from big(ger) to small(er) tomatoes. And finally, packaging or a preference for unpackaged tomatoes plays a role. The shopper research results not only show clear differences between tomato variants, but also between countries and even between retailers. To maintain an overview, Growers United uses various decision trees per country and per retailer. The insights are an important principle to optimise the product range and shelf display presentation of specific retailers.

One of the research insights is that German shoppers are buying a relatively large number of snacking tomatoes but do not feel the need to find them next to other snacking vegetables, such as snacking cucumbers or snacking peppers in the display. In the Netherlands though, a presentation where these vegetables are positioned next to each other, is considered an improvement.

Grower United's shopper research also distinguishes between types of retailers; the so-called service supermarket and discount supermarket. The results show that the expectations and needs of shoppers differ when visiting a service supermarket or discount supermarket. 60% of German shoppers leaving the supermarket with loose, small tomatoes already has already decided upon that purchase at home. While at least 50% of shoppers visiting a discount supermarket makes a purchasing decision in-store. Another example; at service supermarkets, being able to select loose products yourself and organic produce are considered important. But at discount supermarkets, a bigger packaging content plays an important role in the selection and purchasing process.





Conclusion

Stimulating consumers to eat more fruit and vegetables is in everyone's favour. From the entire fruit and vegetable supply chain including seed breeders, growers, and retailers to consumers themselves.

But how do you assist consumers in making healthy decisions? And assist them in choosing vegetables when visiting the supermarket? By understanding them better and gaining insight in their selection and purchasing process. That is why the results from the international shopper research that Growers United has been conducting amongst 17.500 consumers in the Netherlands, Germany, Poland, Sweden, and the United Kingdom are so valuable.



Together with supply chain partners, the insights can be translated into up-to-date advice and smart solutions for retailers. In short, by focusing on aspects like:

- The right moment. Or, reaching consumers when they are open to receive inspiration
 and information. For example, through in-store marketing and communication but also
 through leaflets, magazines, or apps.
- Motivation. Or, increasing product knowledge and highlighting the positive traits of specific vegetables to take away any hesitation. For example, through sharing quick, simple, and appealing recipes.
- Placement and positioning. Or, positioning and presenting vegetables in a way that
 adequately assists shoppers in their selection and purchasing process. They should be
 able to find fresh produce where they expect it.

The supermarket is the place where shoppers are purchasing most of their groceries.

Therefore, it would be obvious to adequately assist shoppers in their selection and purchasing process here. Through sharing interesting information and inspiration at the right moment and at the right place, and by optimally arranging the products on shelf displays, the sales and consumption of fruit and vegetables will only increase.





Growers United shopper research:

Commissioned by Growers United, GfK has conducted shopper research concerning vegetables in the Netherlands, Germany, Poland, Sweden and the United Kingdom.

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- Online survey
- N per country: 3.500
- Details available of: retailer, socio-demo groups, buyers & non-buyers, shopper types etc.
- 2020 + 2023: DE, UK, NL
- 2021: POL, SE









- i CBS: More than 1 in 3 adults want to eat healthier 14-9-2023
- ii FRESHFEL EUROPE: Fresh Fruit and Vegetables Production, Trade, Supply and Consumption Monitor in the EU-28
- iii World Health Organization: Healthy diet 2019
- iv Thesis Tim Meurs, Erasmus University: No desire for interference: The role of anti-institutionalism in educational differences in the admissibility of food interventions
- v GfK Behavior change report 2023
- vi NAGF: Go for Colour-lab, increasing the fruit and vegetable consumption with small nudges
- vii Ehrenberg-Bass Institute of Marketing Science's report: Shopping Takes Only Seconds...In-Store and Online

