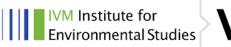
SALINE FOOD EXPERIENCES TERSCHELLING

SUSTAINABLE TOURISM OPPORTUNITIES

30-07-21









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Abstract

Worldwide, fertile soils are increasingly becoming salinized, impacting food security. Therefore, it is crucial to consider sustainable saline agriculture developments from different perspectives. This study researches the potential of saline food in regard to sustainable tourism experiences in Terschelling. In-depth, semi-structured interviews were conducted, and conversations were held with 14 saline vegetable users (chefs and foragers) or tourism experts to gather data on the role of saline vegetables in Terschelling's food culture. This data was supported by fieldwork, which provided conformational data on Terschelling's naturally existing vegetable species. The way tourists experience saline food was measured using participatory observation and a survey; the survey had 26 participants. Together, the data provided using these different methods showed the possible linkages between sustainable tourism experiences and saline agriculture. The development of sustainable saline agriculture can be enhanced by tourists' desire for local food and memorable experiences. The consumption of locally grown saline vegetables by tourists could encourage the development of sustainable saline agriculture, bringing new market opportunities. Tourists in Terschelling perceive saline vegetables to be local and authentic, which shows that saline vegetables can meet tourists' desire for authentic and local food. Survey data suggests that the saline experience is memorable, indicating consumer satisfaction and loyalty. Furthermore, memorable saline food experiences could positively affect environmental protection and awareness creation regarding salinization problems.

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1. Introduction

Arable land on Earth is rapidly decreasing because of floods, droughts, urbanization, land degradation, and salinity (Hussain et al., 2020). Salinity is one of the most extensive soil degradation processes on the planet (Ladeiro, 2012). In Europe, it is estimated that soil salinization affects 1 to 3 million hectares of land (Ladeiro, 2012), thereby impacting agricultural activities. The yields of conventional crops decrease once the soil becomes salinized (FAO, 2018; Rozema & Flowers, 2008), putting pressure on food security and rural communities.

A way to overcome this pressure is by practicing saline agriculture (Vellinga et al., 2021). Saline agriculture is a form of sustainable agriculture that uses saline land and saline irrigation water to grow crops that can tolerate high salinity levels (Ladeiro, 2012). Halophytes are plants that can tolerate relatively high soil salinity (Talat, 2020), therefore suitable for saline agriculture. These plants can produce high yields if grown on seawater, and when grown at lower salinity levels, they can outperform conventional crops both in yields and water use efficiency (Glenn et al., 1999).

Historically, halophytic plants have been used in traditional food recipes worldwide (Panta et al., 2014). Scurvy Grass (*Cochlearia officinalis*) used to be eaten in the form of a salad by Dutch mariners to fight scurvy (A. C. De Vos et al., 2013), and Mountain Spinach (*Portulaca oleracea*) is still used for salads in central Europe and France (Panta et al., 2014). Samphire is likely to be the most widespread halophytic vegetable crop, and its cultivation can be profitable (A. C. De Vos et al., 2013).

Besides halophytes, some salt-tolerant versions of conventional crops also show potential to be cultivated under saline conditions. In a case study in the Netherlands, A. de Vos et al. (2016) tested different crops and varieties of potato, carrot, onion, lettuce, cabbage, and barley on salt tolerance. They concluded that there was almost no yield reduction under "moderate saline" conditions compared to the control group.

The development of saline agriculture and the innovations in saline agriculture are crucial because of the increasing salinization of arable land. It is estimated that in the Netherlands, climate change will increase the salinization of arable land up to 125,000 hectares in the upcoming 5-10 years, where the most increases can be found in the coastal regions (Kampenaer et al., 2007). Because salinization will increase, it is crucial to look at the business potential of saline agriculture in the Netherlands (Negacz & Vellinga, 2021; Ruto et al., 2021). The importance of salinization needs to be recognized in the Netherlands as salinization problems in low-lying areas of the Netherlands are increasing (Oude Essink et al., 2010). However, the urgency seems to be lacking in politics and the agricultural industry, most likely due to the prioritization of other problems, the lack of widespread impacts, and the limited recognition and awareness of the problem (Beauchampet, 2021).

As salinization is local, saline food will often be produced locally. The consumption of local food offers a market opportunity for local businesses by creating a "brand" that benefits the area because it can attract more investments and tourists (Sims, 2009). An increasing number of people travel for food and cuisine (Kim et al., 2009), as local food is a big motivator to travel to a particular destination (Gyimóthy & Mykletun, 2009). Local food and cuisine are critical factors of the tourist experience and are often considered the best parts to enjoy during a holiday (Antón et al., 2019). Tourists seek products and activities to connect them to their destination's nature and people (Sims, 2009). The consumption of local food is a way for tourists to find this connection (Mason & Paggiaro, 2012). Tourists' local food consumption

often creates cultural, environmental, and economic sustainability in rural places, benefitting both the tourists and the host community (Hall & Sharples, 2003).

To look at the potential of saline food in regard to sustainable tourism experiences, it is necessary to understand tourist food consumption and experiences (Wijaya et al., 2013). Multiple studies go in-depth about food consumption and experiences (Sims, 2009; Sthapit, 2017; Zhang et al., 2019). However, there is little to no research about touristic food experiences with food that is not deeply integrated into local cuisine. As saline food is not deeply integrated into Dutch cuisine, possible relations of saline food concerning touristic food experiences need to be explored. This study aims to explore the potential that saline food can have as a sustainable food experience by using the isle of Terschelling as a case study. No similar research has been done on Terschelling, even though it was used as a study site for both salinization and sustainable tourism. Therefore, exploring the combination of those two topics is a novel approach which contributes to the fields of sustainable tourism experiences and saline agriculture.

1.1 Case study Terschelling

Terschelling is an island in the Wadden Sea Region of the Netherlands; see Figure 1. Terschelling promises to be a good case study for this research because of its popularity with tourists and its landscape. The island is home to many attractive landscapes like salt marshes (where halophytes naturally grow), forests, dunes, and beaches. Its nature and landscape attract many tourists, together with the sea and beaches, the quietness and space, and the island feeling and atmosphere (Gelderman et al., 2019). Over the last decades, tourism developed to be central in the socio-economic activity of Terschelling (Sijtsma et al., 2012); in the year 2019, more than 450,000 tourists visited the island (Gelderman et al., 2019).

Before the economy shifted to a service-based and tourism economy, the region had a diverse resource-based economy that arose from various fisheries, hunting activities, and agriculture (Lotze et al., 2005). Nowadays, most agricultural businesses in Terschelling focus on dairy. However, recently there has been some saline agricultural activity. De Zilte Smaak Foundation has a small piece of salinized land on which they perform experiments with conventional crops and halophytes. They aim to cultivate saline and saline-resistant crops sustainably on Terschelling to build up and share knowledge about these crops and their possibilities (Wijbenga & De Zilte Smaak, 2021). For the remaining part of this thesis, de Zilte Smaak Foundation will be addressed as: the saline garden.

Climate change could amplify salinization on Terschelling (Pauw et al., 2012), resulting in increased soil degradation; therefore, making more land unsuitable for conventional agriculture (Rozema & Flowers, 2008). Switching to saline agriculture could provide a good adaptation measure to this problem (Vellinga et al., 2021).

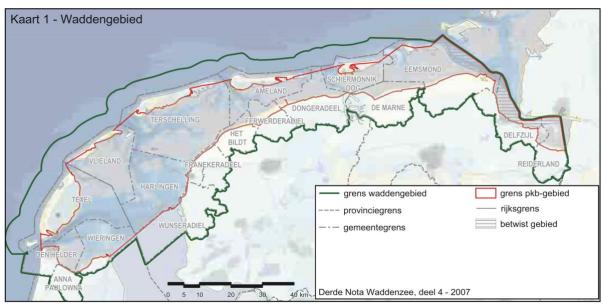


Figure 1. Dutch Wadden Sea region. (VROM, 2007)

1.2 Research questions and thesis outline

With Terschelling as a case study, the potential of saline food experiences within the sustainable tourism industry can be explored. Accordingly, the following research question is defined:

What potential has saline food in regard to sustainable tourism experiences in Terschelling?

The following four sub-questions help to answer the main research question:

- 1. What is a sustainable tourism experience?
- 2. What are theoretical factors influencing food experiences?
- 3. Which role do saline vegetables play in the food culture of Terschelling?
- 4. How do tourists experience saline food?

The outline of this thesis is as follows: the thesis starts with introducing the theoretical framework, describing literature of sustainability in food tourism and touristic food experiences. The literature review serves as a guide to give direction and reflect on data gathered by conducting interviews and surveys. The methodology follows the theoretical framework; this chapter elaborates on the research design and used methods. After the methodology, the research findings of the interviews and survey data are introduced. Finally, the research findings are discussed, and the main conclusions are outlined.

2. Theoretical framework

This chapter discusses relevant literature to get a deeper understanding of sustainable tourism (research question 1) and theories about food experiences (research question 2). The theories about sustainable food tourism, sustainable food experiences, and tourists' memorability of a food experience provide background information for this thesis' subject and guiding information which helps answer the main research question.

2.1 Sustainable food tourism

Even though tourists can give an economic boost to a region, they also can impact the environment of the region they visit in various ways (Buckley, 2011). Therefore, it is crucial to find a balance between the environmental, social, and economic needs of a region. Heslinga et al. (2020) argue that synergy between environmental protection and tourism development is essential for a region's resilience, from which both parties could mutually benefit (Folmer et al., 2016). Sustainable tourism could provide the synergy needed, as sustainable tourism meets tourists' and hosts' demands while protecting and improving the opportunity for future development (UNWTO, 1998).

The consumption of local foods by tourists encourages the development of sustainable agritourism, but it also has a lower carbon transport footprint than the consumption of not locally sourced products (Zhang et al., 2019). Tourists' local food consumption often creates cultural, environmental, and economic sustainability in rural places, benefitting both the tourists and the host community (Hall & Sharples, 2003). Local food consumption offers a market opportunity for local businesses by creating a "brand" that is beneficial for the area because it can attract more investments and tourists (Sims, 2009).

Local foods and drinks can attract more tourists, as many people travel for food and cuisine (Kim et al., 2009). Local food is a big motivator for tourists to travel to a particular destination (Gyimóthy & Mykletun, 2009). In fact, local food and cuisine are key factors of the tourist experience and are often considered the best parts to enjoy during the trip (Antón et al., 2019). In a study done by Sims (2009), more than 60% of the tourists interviewed stated that they deliberately chose to consume foods that they perceived as local during their holiday. The consumption of local food is a way for tourists to connect with their destination's landscape and culture (Mason & Paggiaro, 2012). It appeals to the tourist's desire for authenticity within their holiday (Sims, 2009).

2.2 Sustainable food experiences

In the literature, there are different ways to look at the sustainability aspect of food experiences. Sims (2009) describes that food experiences could provide benefits for the local community and economy. He states that if tourists consume local food, market opportunities could arise, encouraging the development of sustainable agriculture, helping to maintain regional identities, and reinforcing agricultural diversification. He notes that consumers' desire for local food reflects their concern for environmental and social sustainability through their demand for traceable, unique, and safe food.

Hall (2020) argues that it is necessary to look at the broader context of tourism food consumption. He states that the majority of tourists are mass tourists who mostly eat food from the industrialized food chains, which means more meat and dairy consumption, food groups that have significant environmental impacts (Poore & Nemecek, 2018). Having more vegetarian and vegan options at the tourist locations is not actively promoted, nor would they be sustainable if those ingredients were imported from newly cleared land (Hall, 2020).

According to Hall (2020), all impacts of tourists' food consumption must be considered. He argues that it is necessary to look at the entire food system: pollution, waste, health, and the balance between social and economic benefits, but most importantly, food security.

Leer (2020) focuses on the added benefits a food experience can provide. He argues that well-designed food experiences can create awareness and inspire environmentally positive behavioral change. He states that sustainable food experiences should be a form of education in sustainability to inspire sustainable behavior after the journey.

2.3 Memorability of touristic food experiences

Memorability of an experience could have positive effects on environmental protection as well as on awareness creation. Memories about food can set off a sentimental connection to a location, enhancing the feeling of involvement (Gross & Brown, 2006). When people are involved with a location and feel a strong connection, it is more likely for environmental protection to be effective (Parra & Moulaert, 2016). Tourists can positively influence the protection of natural areas as they can create its importance, making it a societal subject and therefore helping it move up on the political agenda (Heslinga et al., 2020).

Memorability of a tourist experience can be indicated through different components. B. Joseph Pine & Gilmore (1998) state that using more senses during an experience, the effectiveness and memorability increase. How memorable tourists' food experiences are, relies on different components (Sthapit, 2017; Zhang et al., 2019), see Figure 2. Sthapit (2017) describes that tourists' memorable food experiences are affected by the quality and locality of the food, social interaction, hospitality, novelty, authenticity, physical environment, and whether the tourist takes something back home as a souvenir.

Of all the components, authenticity seems to be the most highlighted in the literature (Sims, 2009; Sthapit, 2017; Wijaya et al., 2013; Zhang et al., 2019). Wijaya et al. (2013) describe that when the concept of authenticity is applied to food, it is a quality characteristic of different cuisines distinct to particular destinations, thereby also encompassing the food's story, such as its origin. Sims (2009) elaborates on this; she states that authenticity can be found in foods that consumers perceive as local or traditional (Sims, 2009), connecting tourists with their destination's landscape and culture. Tourists can make up their minds about what they see as a "typical" food experience for their destination. If the experience fits their ideas (setting, surroundings, the food), the chance is higher that they perceive it to be "authentic" (Sims, 2009). Zhang et al. (2019) emphasize the importance of authenticity of the experience; they state that authenticity and quality attributes (food quality, service quality, and the physical environment) are significant for consumer satisfaction and loyalty. Zhang et al. (2019) describe that the quality attributes could be improved via authenticity, satisfying tourists with local food, making them buy food, and increasing their loyalty, such as their recommendations to others or their intentions to revisit the destination. It is most likely that satisfaction and revisit intentions are greatly influenced by the food experience(Kivela & Crotts, 2006; Ryu & Jang, 2006), indicating memorability (Kivela & Crotts, 2006).

Besides the components of memorability, Wijaya et al. (2013) stress the importance of gathering data of different dining stages and during the different dining stages (pre, during and, post dining). This is important because the overall assessment and feelings of an experience are based on an accumulation of expectations before the experience, perceptions during the experience, and memories after the experience (Larsen, 2007). Especially for data of the predining stage, collecting data before the dining has started is crucial because people's ability to recall their feelings afterward is unreliable (Noe & Uysal, 1997). The pre-dining stage is about the expectations, while the during-dining stage is about the perceptions at the actual moment

with local food. The post-dining stage is about tourists' satisfaction and behavioral intentions after the dining experience (Wijaya et al., 2013).

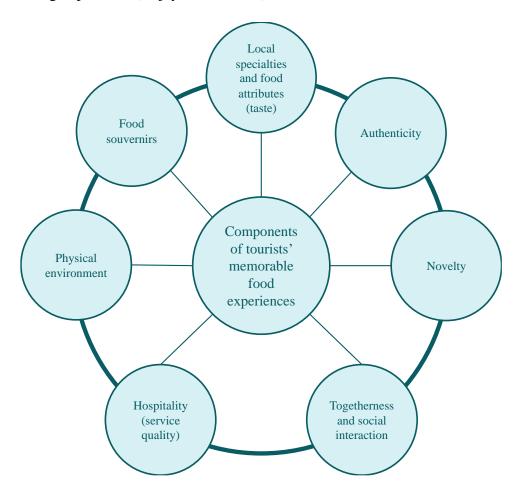


Figure 2. The conceptual framework of tourists' memorable food experiences adapted from (Sthapit, 2017, p. 414)

The components of tourists' memorable food experience and Wijaya et al.'s (2013) dining stages provide insights for research question four: How do tourists experience saline food? The components of local specialties and food attributes (taste) or food quality and authenticity of the conceptual framework emphasize the importance of research question three: Which role do saline vegetables play in the food culture of Terschelling? By knowing the role of saline vegetables in the food culture of Terschelling, insights regarding their authenticity and food quality can be provided.

3. Methodology

This chapter will discuss the different methods used to answer the research questions, see Figure 3. During the research, a mixed-method approach of interviews, fieldwork, observations, and surveys were used. Those methods were used in order to gather data on the role of saline vegetables in the food culture of and touristic saline food experiences. The theoretical knowledge gained from the literature review about touristic food experiences was used to guide, give direction, and reflect on data gathered from the interviews, observations, and surveys.

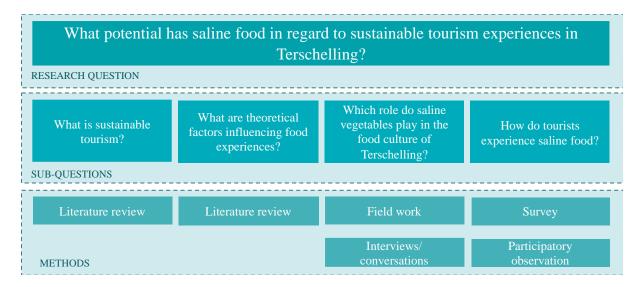


Figure 3. Methodology approach.

3.1 Qualitative interviews & Conversations

To find information about the role of saline vegetables in the food culture of Terschelling, 14 people were interviewed. The participants had various backgrounds that allowed for a broad view of the subject. For this research, people who use saline vegetables (foragers and chefs) and people who work in the sustainable tourism field were interviewed.

3.1.1 Data collection

Participant selection

Terschelling only recently started with a small research-oriented saline agriculture initiative. Previously, saline vegetables were not cultivated on the island. However, Terschelling is home to many saline vegetable species that some people forage. Foragers of saline vegetables know about the plants and how to use them. Therefore, providing to be a good starting point for the interviews.

For many interviews, the sampling procedure can be defined as snowball sampling; this is when the researcher gets in touch with new participants through the contact information that other participants provided (Noy, 2008). On top of the participants selected through snowball sampling, some participants were selected through internet research on 'saline vegetables,' 'sustainable tourism,' and 'culinary culture Wadden area.' The internet searches resulted in foragers for the sample size and tourism experts and experts on the Wadden Sea area's culinary culture (see Table 1 and 2).

Terschelling has many restaurants, of which some use saline vegetables in their menus. Chefs were selected based on their menus (using saline vegetables) as well as snowball sampling.

Interview procedure

As the interviewed people were not from a homogeneous target group, not all participants were interviewed using the same approach. The interviews with foragers and the ones about sustainable tourism were conducted using in-depth, semi-structured interviews. In-depth, semi-structured interviews use a prepared list of predetermined questions while having the space for a more open conversation. This allows exploring topics that the participants see as important during the interviews(Longhurst, 2009). When an interview was not most suitable for the situation, the researcher switched to a conversational interviewing style. Conversations still provided the researcher with viable information while not being 'too' formal; five people were questioned using this method.

The interviews with chefs were conducted using a semi-structured interview method. This method was chosen so that every chef could answer the same questions, but it also leaves room for the interviewer to be more flexible. The length of the interviews varied between 45 and 90 minutes, and the length of the conversations varied between 15 and 30 minutes.

Because all participants were Dutch, all interviews were conducted in Dutch, with for each participant a unique set of questions. The reason, therefore, being that the group was not homogeneous. However, some shared questions were asked to each participant, see Appendix A. The length of the interviews varied between 45 and 90 minutes, and the length of the conversations varied between 15 and 30 minutes. Before every conversation or interview, the participants were asked permission to include their sharing in the research.

Participants

Tables 1, 2, and 3 show an overview of all participants, the format, analysis program, name (all anonymized participants are referred to as A-#), some demographic information, and a small background description. All participants are divided between three tables (some are displayed in two) according to the interview's primary focus. However, the different topics: culinary heritage, sustainable tourism, saline vegetable opportunities, and chefs' perspectives overlap within the interview groups.

Table 1. Interviews/ conversations with main focus on culinary heritage.

Date	What	Notes	Format	Analysis	Who	Gender	Residence	Description
14/04/2021	Interview	Recorded	Transcribed	Atlas.ti	A-1	Women	Terschelling	Old recident from Terschelling, forager of saline vegetables, originally from Zeeuws-Vlaandren
14/04/2021	Interview	Recorded	Transcribed	Atlas.ti	Flang Cupido	Man	Terschelling	Business in tourist industry, chef, forager of saline vegetables, tour guide, boardmember of De Zilte Smaak
	Conversation	Notes	Summary	Atlas.ti	A-2	Man		Farmer, forager of saline vegetables
20/04/2021	Conversation	Notes	Summary	Atlas.ti	A-3	Man	Terschelling	Retired shipper
20/04/2021	Interview	Notes	Summary	Atlas.ti	A-4	Man	Zeeland	Forager of saline vegetables, culture perspective from Zeeland
22/04/2021	Interview	Recorded	Transcribed	Atlas.ti	Marjanna van der Meulen	Women	Terschelling	Fish shop owner, forager of saline vegetables, tour guide, blog about wild eating, the wild kitchen
22/04/2021	Converstion	Notes	Summary	Atlas.ti	A-5	Man	Terschelling	Bee farmer, educator in bees, forager of saline vegetables
17/05/2021	Interview	Recorded	Transcribed	Atlas.ti	Annette van Ruitenburg	Women	Texel	Multiple food books, Culinary island projects
21/05/2021	Converstaion	Notes	Summary	Atlas.ti	A-6	Man	Terschelling	Forager of saline vegetables
26/05/2021	Conversation	Notes	Summary	Atlas.ti	VVV	Both	Terschelling	VVV

Table 2. Interviews with main focus on sustainable tourism and saline vegetable opportunities.

Date	What	Notes	Format	Analysis	Who	Gender	Residence	Description
								Foundation sustainable tourism Wadden
06/05/2	2021 Interview	Recorded	Transcribed	Atlas.ti	A-7	Man	Friesland	region
	Annette van Multiple food books, Culinary island			Multiple food books, Culinary island				
17/05/2	2021 Interview	Recorded	Transcribed	Atlas.ti	Ruitenburg	Women	Texel	projects

Table 3. Interviews with main focus on chefs' perspectives of saline vegetables.

Date	What	Notes	Format	Analysis	Who	Gender	Residence	Description
					Flang			
14/04/2021	Interview	Recorded	Transcribed	Atlas.ti	Cupido	Man	Terschelling	Chef, Flang in de Pan
					Sander			
20/05/2021	Interview	Recorded	Transcribed	Atlas.ti	Wever	Man	Terschelling	Chef, NAP
					Hans			
24/05/2021	Interview	Notes	Summary	Atlas.ti	Gerlofsma	Man	Terschelling	Chef, Loods
					Werner			
27/05/2021	Interview	Recorded	Transcribed	Atlas.ti	Zuurman	Man	Terschelling	Chef, Caracol & de Bras

3.1.2 Data analysis

The interview data and the data from conversations were analyzed using the grounded theory approach. The grounded theory is a method to indicate theoretical constructs based on qualitative analysis of data (Corbin & Strauss, 2012). The theory uses a strategy of simultaneous data collection and analysis. By absorbing information from the data analysis while still collecting data, the researcher gets a sense of direction, benefits greater sensitivity to the data, and it allows the researcher to revise and redirect interview questions or observations for coming interviews (Corbin & Strauss, 2012).

The data were analyzed in two coding cycles using the three-step coding process (open/initial coding, axial coding, and selective coding) described by Corbin & Strauss (2012).

The first cycle coding process uses an open-ended coding approach. Open coding breaks down the data into parts to look for similarities and differences (Corbin & Strauss, 2012). This coding approach is helping the researcher to remain open to multiple theoretical directions (Saldaña, 2013) while also making a beginning of analytic decisions about the data (Gubrium et al., 2012). See Table 4 for an illustrative example of the open coding process.

Table 4. An illustrative sample of the open coding. Translated from Dutch, original text in Appendix E.

Interviewee's view (translated extract from transcript)	Open coding
that the Northerners have not been very Burgundian	NO 'BOURGONDISCH' LIFESTYLE
anyway, except for the importation of food for the people of	
higher class. And people used to eat not as a kind of	
entertainment like we eat but there was just a need to get	FOOD AS NECESSITY
enough calories to do the hard work	HARD WORKING PEOPLE

In the second cycle coding process, a sense of categories was developed using an axial coding approach. Axial coding enlarges the analytic work from the open coding; it reassembles data that is 'split' during the open coding process (Saldaña, 2013). In this process, the open codes were reduced by grouping similar coded data and adding them into conceptual categories. Categories' characteristics are specified, explored and relations between categories are determined within the axial coding process (Saldaña, 2013). Table 5 shows an illustrative example of the axial coding.

Table 5. An illustrative sample of the axial coding. Open codes are listed on frequency, from most to least frequent.

Open coding	Axial coding (categories)	Selective coding (sub-theme)
TASTY; TASTE COMPARED TO OTHER CROPS; SALINE TASTE; SALTY; PRODUCE GROWN ON SALINE SOIL TASTE DIFFERENT; DELICIOUS; TASTE ENHANCEMENT; ORIGINAL PRODUCT; HEALTHY; FANTASTIC; DELICACY; CHEWY; SEA ASTER KNOWN AS SEA LAVENDER; NOT TASTY; JUICY; FRESH; FIRM; CRUNCHY; SURPRISING; SPICY; SPECIAL PRODUCTS; POWERFUL TASTE; LEARNING TO APPRICIATE IT; FATTY; BITTER; BITE; WOODY TASTE; WATERY; UNKNOWN; UNIQUE; TASTE DEPENDS ON PREPERATION; STRONG TASTE; SOME MORE TASTY THAN OTHERS; SOFT; SHARP; SALINE VEG. ARE NICE FOR SOMETIMES; NUTTY; NO FISH, NO SALINE VEG.; DOMINANT; CRISPY; CONCENTRATED FLAVOR; ALL TASTE DIFFERENT	Perception of saline vegetables	Saline vegetable use

The axial coding process was followed by selective coding Selective coding identifies core variables out of the categories, creating sub-themes and themes (Corbin & Strauss, 2012). Table 6 shows an illustrative example of the selective coding.

Table 6. An illustrative sample of the selective coding.

Axial coding (categories)	Selective coding (sub-theme)	Selective coding (theme)
Food history; Availability of saline	Saline vegetables in food culture	Saline vegetables in the Wadden
vegetables; Little saline vegetables	Wadden Region	Kitchen
consumption; Foraging trend		

During both coding cycles, analytic memos were written as this is a crucial component during coding. Analytic memo writing keeps track and reflects on how the data is analyzed (Saldaña, 2013). All quotes used in chapter 4 are translated from Dutch (the original language) into English; for the original text, see Appendix E. In the result section of the interview and conversation data, interviewees' mentions of an opinion or view are addressed by using the terms few, some and most. Where few is <3 mentions, some between 4-8 mentions and most 8-14 mentions.

3.2 Fieldwork

Wild saline vegetable species (halophytes) that naturally grow on Terschelling were determined using interview data and online plant species location websites. To ensure the data's correctness, the researcher searched for the species on different beaches and salt marshes.

Multiple pictures were taken from the different species (Appendix C) so that it was easier to identify the plants. The different plant species could be identified using plant recognition apps such as PlanNet, Planta, Flora Incognita, and confirmation by experts.

3.3 Survey & Observation

To collect data on saline food tourist experiences, participatory observation combined with a survey was used during a saline food excursion in Terschelling. The survey was conducted on two different days (end of May and beginning of June), with a 100% response rate. The survey had 26 participants, of which the first day had 12 participants, and the second day 14 participants.

3.3.1 Saline excursion

The saline food excursion consists of four parts: the saline garden, the salt marsh, the mudflats, and dinner. The excursion begins with a short introduction at the cooking studio, from the participants' cycle to the saline garden. At this garden, the guide explains a bit about salinization as well as the foundation's purpose. During the garden visit, the guide shows the different vegetables grown, while the participants get to taste most of the vegetables. Some of the vegetables are harvested and taken along to use later on during dinner preparation.

After the garden visit, the participants cycle along the dike towards the Wierschuur; this is a salt-marsh area where many halophytes grow. After that, the participants arrive at the salt marsh area; they walk around while the tour guide explains about the different halophytes. The participants get to harvest a little bit for dinner but also taste the halophytes on the spot.

From the salt marsh, the tour enters the third part: the mudflats. During this part of the tour, the guide explains about the mudflats, the Wadden Sea, and its ecosystems. Participants get to collect some saline vegetables, cockles, and seaweeds for dinner.

Once back at the cooking studio, all participants are greeted with wine while waiting a short time on their food. A part of the dinner is prepared before the excursion, and some is being made with the collected food. All plates contain one or multiple saline vegetables. See Appendix D for pictures of the different plates.

3.3.2 Participatory observation

Before the excursion, the researcher interviewed the tour guide to get to know more about the excursion. This helped to get a better understanding of what a typical saline excursion experience would look like.

The researcher was introduced to the participants at the introduction of the excursion by the tour guide, where all participants could consent to participate in the research. Therefore, the studied group was aware that they were being studied. Participatory observations allow the researcher to participate in the different activities while maintaining the role of the researcher to collect data.

The researcher is an observer who is not part of the group but interested in participating to conduct better observations and therefore be able to get a more exhaustive understanding of the group's activities (Kawulich, 2005). The method chosen to record the observation were voice memos and digital field notes on a mobile phone. At all times, the anonymity of the participants was guaranteed.

3.3.3 The survey

The survey was handed to the participants at the last activity: the tasting. During this activity, the participants had sufficient time to fill in the survey. The survey questions were in Dutch as the target group is Dutch-speaking; the survey is displayed in Appendix B. The survey process uses the five general stages from development to completion by Czaja & Blair (2011), shown in Figure 4.

The survey consists of open-ended and closed questions to get a broad range of data on touristic saline experiences. Because the participant group was not large, the researcher decided to add a considerate number of open-ended questions; this provided the data to be more qualitative and detailed. The questions were constructed using the insights from the conceptual framework (Figure 2); however the component "food souvenirs" does not come forward in the survey because there is no option to purchase souvenirs at the excursions' location. Literature also suggests that the use of all five senses contributes to the memorability of an experience (B. Joseph Pine & Gilmore, 1998); this is not a component in Sthapit's (2017) framework. However, it might come forward in responses to the open questions as during the experiences, participants use multiple senses like tasting, seeing, smelling, listening, and feeling.



Figure 4. The five general stages in the development and completion of a survey adapted from: (Czaja & Blair, 2011)

3.3.4 Data analysis

The answers to the survey were digitalized in Excel, where the closed questions could be analyzed using formulas to create an overview of the number/percentage of people answering a particular answer. For the open questions, a different approach was used. The data of the open questions were coded using Atlas.ti. Coding the data helped to give structure to the different answers participants provided. Each open question was coded separately to get a result overview for each individual question. The questions were coded using an open-ended and invivo coding approach. To get an overview of how many participants shared the same views, code frequencies were measured for each separate question.

4. Research findings

This chapter goes into the findings of the interview and conversation data as well as the survey results. The first paragraph focuses on the role that saline vegetables play in the food culture of Terschelling (research question 3), and the second paragraph focuses on how tourists experience saline food (research question 4).

4.1 Results interviews: saline vegetables in the Wadden Kitchen

The interview and conversation data analysis using the grounded theory method resulted in the emergence of the following theme: saline vegetables in the Wadden Kitchen. Wadden Kitchen is a name for the food and dishes people associate with a region, like the Italian Kitchen or the French Kitchen.

The theme: saline vegetables in the Wadden Kitchen emerged from five sub-themes: food culture in the Wadden region, saline vegetable use, saline vegetable cultivation, sustainable food trend, and Wadden tourism. Figure 5 provides an overview, showing the sub-themes and categories from which the main theme emerged. In this chapter, the sub-themes are discussed, and on some occasions, quotes are used to support the arguments of the participants.

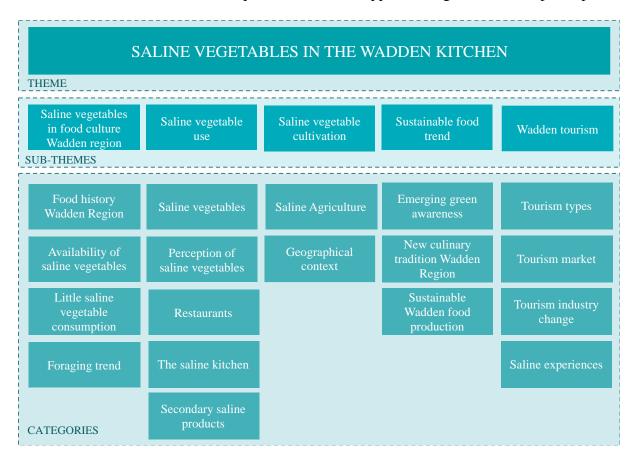


Figure 5. Grounded Theory analysis interviews and conversations

4.1.1 Saline vegetables in food culture Wadden region

The role that saline vegetables play in the Wadden food culture's history is critical to understand if saline vegetables are culturally related to the Wadden. Most interviewees mentioned that to their knowledge, there was only little saline vegetable consumption on Terschelling/ in the

Wadden region. A few interviewees mention that it is likely that the few times people did consume saline vegetables, it was eaten by the poor was when there was nothing else to eat.

- * "Saline plants, sea lavender, samphire, that was poor man's food, they didn't really eat that ..."
 (Annette van Ruitenburg)
- * "However, it could be that people used to eat it [saline vegetables] when there was nothing else." (VVV)

Many of Terschelling's inhabitants were relatively poor (Heslinga et al., 2018) and had to struggle against the forces of nature (Folmer et al., 2016). It is more likely that calorie-dense food was preferred, as most people had to work hard and do much physical labor.

* "What was done a lot, and you can see that reflected in those stories, there was very hard work, a lot of physical. Life in the Wadden region was hard for many people. If you worked on the Wadden coast, Friesland or Groningen, yes, to put sod on the dike, to cut sods to close the salt marshes so that the cows could graze, if you did that kind of work, you were very hungry. So, what was eaten? Uh..., potatoes but also barley and also those porridges from grains." (Annette van Ruitenburg)

Most interviewees mentioned that in the more recent history and nowadays, the consumption of saline vegetables is still not very common in this region. Even though there are various saline vegetables available on the island (Table 7), not many people forage for them. Some interviewees mentioned that foraging is time-consuming, which could be one of the explanations. They also mention that there is just little to no interest in the vegetables, people do not understand foraging, or they do not know about the vegetables' existence and edibility. This is nicely illustrated in a section of the interview with the older women who originally came from Zeeland (A-1). When she moved to Terschelling, she brought her saline foraging and eating habits with her.

* "And most people don't look at it. Because they don't understand what you're doing. [...] They would say: "What are you doing?" I would say, "Well this" "Puh, what are you doing with that?" I would say, "Nice to eat later, right." But uh, they don't know it here." (A-1)

However, there has been a recent shift in the way people look at saline vegetables; some interviewees mention increasing popularity in foraging and saline vegetables. Nowadays, the foraging of saline vegetables most likely has two origins: people who brought their habits from Zeeland and a new trend. In Zeeland, it is more common to eat saline vegetables, and this knowledge traveled to Terschelling when people moved there. There is also a group of people who started eating and foraging saline vegetables without the influences from Zeeland. There is an increasing trend to eat more local foods and to forage food in nature.

- * "In fact, everything he knows about saline vegetables, he learned from A-1." (A-2)
- * "You do see a new trend, it's suddenly hip, the saline vegetables and foraging." (VVV)

4.1.2 Saline vegetable use

The use of saline vegetables forms the base of how they can be used in the Wadden Kitchen. Terschelling is home to many natural growing saline vegetable species; this makes foraging, preparing, and eating them is possible. Table 7 shows saline vegetable species that naturally grow on Terschelling and their flavors. The flavors presented in Table 7 are derived from interview data and follow-up email conversations.

Not only the saline vegetables that are displayed in Table 7 were mentioned during the interviews, but also some that do not grow naturally on Terschelling like karkalla (also known as sea banana). The vegetable mentioned the most was samphire (Figure 6), which was also the most frequently used saline vegetable for preparing dishes. The second most mentioned saline vegetable was sea lavender; however, it is not certain if the participant referred to sea lavender or sea aster. In the Netherlands, it is common to use the name sea lavender when referring to sea aster. For example, catering wholesalers in the Netherlands like Sligro and HANOS sell sea aster by the name of sea lavender. A few interviewees also mentioned this phenomenon.

- * "... to make all kinds of things from sea lavender, sea aster actually huh, not the right term ..."
 (Anette van Ruitenburg)
- * "... I thought that the sea aster is actually the sea lavender ..." (Werner Zuurman)

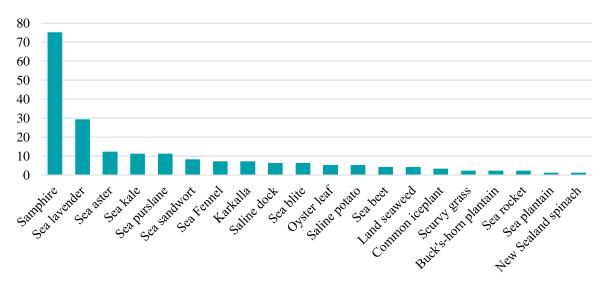


Figure 6. Saline vegetables: number of times it has been mentioned during interviews.

Even though saline vegetables are not deeply integrated into the food culture of Terschelling/ the Wadden region, multiple restaurants use saline vegetables for their dishes, and their enthusiasm about them can be noticed in the interviews.

- * "... it's just really an addition to the kitchen ..." (Sander Wever)
- * "... we started with a few restaurants, and they were really very excited ..." (Flang Cupido)

Saline vegetables could be an excellent addition to the food culture of the Wadden region, as it is a local product and has unique flavors. During the interviews, the most mentioned perception of saline vegetables was "tasty," followed by "saline," "salty," and "delicious," more perceptions can be found in Table 5 Appendix X (needs to be added).

Multiple chefs mention that the taste depends on the different varieties of vegetables and the preparation. Some can be eaten without preparation, and some need preparation to be made accessible for consumption. A frequently mentioned preparation method is stir-fry, but the preparation heavily depends on the type of vegetable used and its purpose. The variety of species and preparation lead to many different dishes. For multiple occasions, the vegetables were only used as a garnish and additional flavor. Other times the vegetables were used as a main or side dish.

- * "... we often use it really to finish the dish visually but also to still add a nice salty flavor ..." (Sander Wever).
- * "... you can use it as a standalone dish fantastically of course ..." (Flang Cupido)

The chefs get their saline vegetable produce locally by foraging/ through the saline garden or importing it from elsewhere. Chefs want to use local products and cook seasonally; however, it also depends on the price, and it needs to be manageable. The manageability is different for small and big businesses. Multiple chefs mentioned that their occupation makes them very busy, leaving little time for foraging. Furthermore, some mention that at the moment, there is not enough on the island for every restaurant to go foraging saline vegetables or get them at the saline garden.

- * "... of course, it is not the intention that you work hard for a whole year and end up with nothing because you want to work so locally, but when people here ask prices that go skyrocket, then you have to adjust ..." (Werner Zuurman)
- * "... gathering all those ingredients locally is difficult, maybe if you have a small store it will work, but in a big tent it is difficult to get enough ..." (Hans Gerlofsma)
- * "Well, it doesn't work with everything completely from the Netherlands, occasionally a bit of Germany, Belgium, but actually with a more conscious idea than buying the cheapest thing you can get so to speak." (Sander Wever)

From all the natural growing vegetable species is the pedunculate sea purslane very rare, the sea fennel can only be found in small quantities on the dike, and common scurvygrass is present on the island, only it is not certain how common it occurs (Forest ranger Terschelling, personal communication, June 9, 2021). It might be that there are more saline vegetables on Terschelling than is shown in the table; some of the participants mentioned: wormwood, sandspurrys, sea plantain, annual sea blite, and sea milkwort. Due to the time limits of the study, those vegetables are not further researched.

Table 7. Natural growing vegetable species on Terschelling.

English name Dutch name	Samphire Zeekraal	Sea Aster Zulte/ Zeeaster	Sea Lavender Lamsoor	Sea Kale Zeekool	Sea Purslane Gewone Zoutmelde
Latin name	Salicornia	Tripolium pannonicum/ Aster tripolium	Limonium vulgare	Crambe martitima	Halimione portulacoides/ Atriple portulacoides
Flavor	Nice crispy saline taste. Firm, saline, crispy. Saline and spicy. Saline and crispy. More tasty when young, saline.	Accessible saline taste. Firm, saline. Saline and creamy.	Stiff leaves, slightly bitter. Chewy. Saline.	Flowers are very sweet. Leaf before flowering as edible and delicious as cabbage. Now the flower very tasty. Like a young sprout. Saline and cabbagey. Like cabbage but saline. Saline, cabbagey like, but not like white cabbage.	Pleasantly salty, lik chips. Firm, saline, crispy Little bit more salty than samphire and so lavender.
English name	Pedunculate Sea Purslane	Sea Blite	Sea fennel	Sea Beet	Danish Scurvy Gra
Dutch name Latin name	Gesteelde Zoutmelde Halimione pedunculata	Schorrenkruid Suaeda martitima	Zeevenkel/ zeekervel Crithmum maritimum	Strandbiet Beta culgaris	Deens Lepelblad Cochlearia danica
Flavor	Deliciously salty and crunchy.	Not a lot of flavor, slightly saline.	Strong taste of fennel and saline. Salty like licorice. Spicy and bitter, not like fennel. Bit like fennel, but more intense.	Pretty stiff, possible to stir fry, not more. Slightly sour and saline. Slightly sour and saline.	Especially the flower are very tasteful.
English name	Scurvy Grass	English Scurvy Grass	Buck's-horn plantain	European searocket	Sea Sandwort
Dutch name Latin name	Echt Lepelblad Cochlearia officinalis	Engels Lepelblad Cochlearia anglica	Hertshoornweegbree Plantago coronopus	Zeeraket Cakile maritima	Zeepostelein Honckenya peploide

Pictures of pedunculate sea purslane and scurvy grass are from: (First Nature, n.d.; van Heerden, n.d.), as the researcher was not able to find them on the island. All the other pictures are made by the researcher, for a better look of the species, see Appendix D.

4.1.3 Saline vegetable cultivation

The cultivation of saline vegetables in the Wadden Sea region could strengthen local aspects within the Wadden Kitchen, which could attract more tourists (Kim et al., 2009). Saline agriculture could increase the local food supply in the Wadden region, as there is not enough local food production to provide the whole region with locally produced food. In contrast, local food is a crucial factor of a tourist experience and is often thought of as the most enjoyable part of a holiday (Antón et al., 2019).

* "... that is not doable, mass tourism makes it difficult to obtain everything locally ..." (Hans Gerlofsma)

The food production in the Wadden region will need to change if it wants to provide for its region and its restaurants. There are needs for new developments in the food supply, and this cannot be done without support as changing is difficult.

- * "... there should also be food supply developments ..." (A-7)
- * "... you will also have to help them with innovation projects, with grants ..." (Annette van Ruitenburg)
- * "... so that you use the positive incentive to change rather than start setting rules ..." (Annette van Ruitenburg)

If the saline garden would expand or new saline agriculture initiatives would arise on Terschelling, chefs would be more interested in getting their saline vegetable produce from local saline agriculture. However, it needs to be reliable and priced according to their business model. Some interviewees also mentioned the importance of the location where the saline agricultural expansion should take place. There are concerns that saline agriculture could have negative impacts on the salinization of fertile soils. Therefore, interviewees mention that saline agriculture needs to be carefully managed and performed in places where the soil is already salinized. Atzori (2021) points out that coastal sandy soils seem an ecologically safe place for saline agriculture if underground freshwater contamination is avoided.

* "... and if some saline farmland cannot be used for certain components but can be used for the saline potato or for the samphire or for the sea lavender then of course you have a product ..."

(Annette van Ruitenburg)

4.1.4 Sustainable food trend

The sustainable food trend inspires the forming of the Wadden Kitchen. Currently, there is a project to develop a shared culinary tradition for the whole Dutch Wadden region (Waddengoud, 2021). The program aims to establish a culinary tradition of high-quality Wadden Sea gastronomy, supported by regional producers that produce sustainably and culinary entrepreneurs, linked to the tourist-recreational experience of the Wadden Sea World Heritage as the place of taste, healthy food, and conscious living (Stichting Waddengroep et al., 2020, p. 4).

Creating a shared culinary tradition for the whole Wadden Sea region would be a good incentive for the development of saline agriculture. Saline agriculture could be part of this new tradition as it fits the story.

* "If you say what is a distinctive taste that belongs to a Wadden Sea region, then the first thing that comes to mind is saline. So, I think that is very important within the story, so to speak, to look at it

in terms of yes, you can do something distinctive with it. A coastal province by the sea will have to do something with the saline story. Saline vegetables could become an important part of that story." (A-7)

* "If you have a nice dish with oysters from the Wadden Sea, and then the description on the menu or how it is explained at the table: oysters from Terschelling with cucumber, elderflower, saline vegetables from the Terschelling mud flats" (Annette van Ruitenburg)

This new culinary tradition is a way to stimulate local agriculture sustainably and fits the new trend: emerging green awareness. There is an increasing group of people that make decisions more consciously and think about their dietary impacts.

- * "... people are also becoming more aware ..." (Marjanna van der Meulen)
- * "... everywhere you see that, you see that increasing green consciousness..." (A-7)

4.1.5 Wadden tourist

Terschelling has a mix of tourism types; during the interviews, multiple tourist types that visit Terschelling were mentioned. For example, the more sustainable tourist (the conscious/ nature/ authentic tourist), the mainstream tourist, the culinary tourist, and a recently added one: the corona tourist. Because of the corona pandemic, many Dutch tourists that usually traveled outside of the Netherlands choose a holiday destination within the Netherlands. In 2020, there was a 25% increase of tourists that stayed within the Netherlands compared to 2019 (CBS, 2020).

Some interviewees mentioned that the number of tourists makes the island feel crowded, affecting the local community. However, tourism is an essential aspect of Terschelling in economic terms, 35% of the people in Terschelling work in the recreational and tourism sector (FSB, 2020). Tourism can be economically beneficial for a region through job creation, livability, and wellbeing (Libosada, 2009).

- * "And yes, on the islands there is actually another problem, there you sometimes have the feeling of "over" tourism." (A-7)
- * "It is important to maintain the right balance between tourism and the residents. The island is a mono-economy with over 80% depending directly or indirectly on tourism. Tourism also provides the high level of amenities for the residents. A number of residents mainly want peace and quiet. This is also abundantly present on the island. We like to share this with our guests, there is enough space on Terschelling." (VVV).

During the interviews, it was mentioned that a shift in the type of tourist that visits the island could be beneficial for the community as well as for the environment. Tourism can have various global and local impacts on the environment (Buckley, 2011), but it can also contribute to establishing environmental regulations and laws (Heslinga et al., 2020), which in turn could help the environment.

- * "The sustainable tourist is important for Terschelling, for example, for nature conservation." (VVV)
- * "And if you put all the clichés of the Wadden Sea next to each other, then you will indeed get the superficial tourist who comes for the bitterbal and the satay, but if you combine all the unique aspects of the World Heritage Site of one of the most beautiful wildernesses of the Wadden Sea [...], the cultural-historical aspects [...], then yes, you can attract a, I'll just say the green/interested tourist to your island. [...] So then you're going to attract a tourist who also, yes maybe cleans up someone else's mess along the way or who also helps out with the farm field once in a while. So, they don't just take, they also give. And in which you thus make the connections of your place of

residence in the whole context of the Wadden. And then he goes home again with an enriched, new atmosphere, new inspiration." (Annette van Ruitenburg)

A few of the interviewees believe that by offering more green options, the sustainable tourist could be attracted to visit the island, for example, through sustainable tourism experiences. Some mention that through tourist experiences, people could be reconnected with the local environment, and through the education provided by the experience, awareness could be created. This is also in line with the views of Leer (2020), who states that sustainable food experiences should be a form of education in sustainability to inspire sustainable behavior after the journey.

- * "So yes, just by telling people what you can actually eat from nature, people start looking at nature differently." (Marjanna van der Meulen)
- * "I think that is very important, I think that is the basis of respect for nature, that people understand how it works. That it's hugely important that people get that education and know what it is and how it works. That people get an understanding of how nature and systems work so to speak and that you then have to deal with that in a proper way." (A-7)
- * "We want people to be aware of what they are eating and why they are eating it." (Sander Wever)

4.2 Results saline excursion

4.2.1 General results

As is shown in Table 8, the research group was in terms of age very well distributed; 54% was female, 46% was male. 15% had an MBO education, 42% an HBO education, and the remaining participants had a university education. All the participants were tourists on Terschelling, of which two people stayed on Ameland, a neighboring Wadden Island.

Many participants find it important to eat local food; this is more important during a vacation than on average. People also find experiencing culture during their vacation relatively important, see Table 9. Most participants said that saline vegetables are part of the culture of Terschelling (76%), the others did not know if saline vegetables are part of the culture of Terschelling (24%).

The majority of the group came to the excursion with his or her partner (85%), followed by friends (8%) and family (8%). They knew about the excursion primarily because of the website (30%), followed by the VVV office (22%), Google (15%), Friends (15%), and other sources (17%). The main motivations for people to join the excursions were personal interest in the topic (7), the combination of learning new things, nature and tasting (6), and the timing that fits the schedule (6).

Table 8. General information participants.

Education		Age		Gender	
Primary education	0%	<21	0%	Male	46%
High school	0%	21-35	35%	Female	54%
MBO	15%	36-50	15%		
HBO	42%	51-65	50%		
University	42%	>65	0%		

Table 9. Importance ranking locality and culture.

Ranking: 1 not					
impartant; 5 very	Importance of l	loal food	Importance of local food	Importance of cultural	
important	on vacation	on average		experience on vacation	
	1	0%	0%	0%	
	2	0%	0%	0%	
	3	4%	12%	12%	
	4	35%	58%	42%	
	5	62%	31%	46%	

4.2.2 Expectations

Many participants expected to learn new things (17) as well as/ or to get involved in the activity (11), like tasting, seeing and foraging, having a good time (8) with good food and fun activities, while others did not know what to expect and were curious to find out (5).

The majority of the participants had at least eaten one species of saline vegetables before (81%); those mainly were samphire (21) and sea lavender (12). It is not sure whether people meant sea lavender or sea aster due to the confusing use of the name; see the previous chapter for this phenomenon.

4.2.3 First part: the garden and salt marsh visit

Most participants described that they had a good time during this part of the excursion (22). They mention "fun," "very nice," "beautiful," and "relaxing." Many also thought the excursion to be interesting (9) and informative (17); they mention learning about salinization and nature.

- * "Fresh and saltwater issues and the development of saline cultivation."
- * "Influence of climate change."
- * "Realize how big of a problem salinity already is. Realize that in the future it will be necessary to start eating more plants that can grow in saline conditions."

Many ranked the guide a 5 out of 5 (69%), the remaining people a 4 out of 5. The information they received during this part of the excursion was, for most participants, very novel, 5 out of 5 (46%), 4 out of 5 (38%), and 3 out of 5 (15%).

For all the participants was this part of the excursion an added value to their experience. Participants stated that this part was an added value because of the educational part (15), learning about salinization and therefore creating awareness as well as receiving new information about saline vegetables. The use of different senses (12) like tasting, seeing, hearing, and getting involved was also mentioned as a reason for the added value of this part of the tour. Some people mentioned the location as an important factor (4), connection to the place you are staying but also nice weather and being outside.

* "It is memorable because you include all senses during the full experience."

4.2.4 Second part: tasting the prepared food

At the tasting, most people perceived the saline food as salty (19), crispy (17), and umami (11); see Table 10. The participants rated the saline food to be tasteful, and relatively novel (Table 11). Most people would eat saline vegetables again (88%), and all participants said that this part of the excursion was an added value to their experience because they could experience the application of the saline vegetables (7) and because they could enjoy good food (6).

- * "Gives ideas about applications of saline vegetables and gives a nice end to the excursion (after picking and collecting)."
- * "Because it's super fun to see what Flang [guide and chef] has made with it. It was delicious. I also really liked the tapenade! And the rest too :)."

Table 10. Participants' perceived taste during tasting.

Perceived taste	# of participants
Salty	19
Crunchy	17
Umami	11
Fresh	4
Spicy	4
Bitter	4
Sweet	3
Soft	2

Table 11. Participants' tastefulness/ novelty ranking.

Ranking: 1 not tasteful/ new; 5 very			
tasteful/ new	Tastefulness	Novel taste	
	1	4%	0%
	2	0%	0%
	3	8%	16%
	4	42%	68%
	5	42%	12%

4.2.5 Overall experience

For the overall experience, people mentioned that they had a good time (11), and some highlights were the educational part (8) and the combination of different activities (7). People mentioned that they learned most about local nature (13), eating saline vegetables (6), saline agriculture (5) and that they got more environmentally aware (4).

- * "That we should be careful with nature. Be alert to the changes and see how we should deal with them."
- * "More knowledge of the Wad, more awareness."

All participants would be up for doing a similar excursion in the future and would recommend the excursion to friends.

4.2.6 Participatory observation

The excursion took place on a sunny day with pleasant temperatures. In the first part of the excursion at the saline garden, people got information about and got to taste the different saline vegetable species. Multiple times during this part of the excursion, people asked if that particular species was only grown here or if it also was natural to Terschelling, looking most enthusiastic when it was indeed natural to Terschelling. Many people asked questions about the foundation and salinization, showing interest in the foundation's market perspectives and the scale and impacts of salinization.

During the second and third parts of the excursion (salt marshes and mudflats), people made multiple remarks about how "beautiful" the landscape around them was. They made many pictures of the landscape and made connections between the food and landscape: "*Very tasty, with the mudflats and all being in the background.*".

At the last part of the excursion, during the taste part, the temperature dropped, and the wind was cold. People had to eat outside due to governmental Corona restrictions, which prohibit people from eating inside when going to restaurants.

5. Discussion

The purpose of this study was to gain a better understanding of the potential that saline vegetables have in regard to sustainable tourism experiences with Terschelling as a case study. The results indicate that there is potential for saline vegetables in sustainable tourism experiences because the saline experience creates memorability, giving it the potential to succeed, help environmental protection, and create awareness on salinization issues. Literature shows that an experience that creates memorability has the potential to be a success. Sustainable tourist experiences help environmental protection and create awareness of salinization issues.

5.1 Interpretation of results

This study indicates that saline food experiences can be memorable including six out of seven components of Shapit's (2009) conceptual framework. For saline vegetables' authenticity, the results of this study lean towards mixed views. Data from the interviews show that authenticity cannot be found in the historical use of saline vegetables. However, interview results show that people do associate saline vegetables with the Wadden region. Data from the survey further support this; 76% of the survey participants perceived saline vegetables to be part of Terschelling's culture. Possible explanations for these results might be that foragers and chefs increasingly use the vegetables, which shows their growing popularity. Besides that, many saline vegetables grow naturally on the island, enhancing its local attribute. These findings align with Sims's (2009) study; stating that food authenticity can be found in foods that the tourists perceive as local. Altogether, it can be stated that saline vegetables are authentic enough for tourists' desire.

Local specialties and food attributes (taste) were mentioned in the survey's open questions. The majority of the participants thought the saline vegetables to be tasteful and relatively novel. By asking the guide multiple times if the vegetables grown in the saline garden also grow naturally on the island participants showed interest in local origin of the saline vegetable species. The participants also indicated that local food was very important (62%) or important (35%) during their holiday. However, as the sample size (26) of the survey was small, the results might not reflect most tourists' preferences. Nevertheless, these results build on existing evidence of local food's importance during a holiday (Antón et al., 2019; Gyimóthy & Mykletun, 2009; Kim et al., 2009; Sims, 2009).

The taste of saline vegetables compliments other flavors of this region, thereby connecting flavors to the physical environment (servicescape) was mentioned during interviews. Some excursion participants mentioned that the saline excursion was a way for them to connect with their location.

The majority of the participants came together with their partner to the excursion and ranked the guide a five out of five, indicating good hospitality. The seventh component food souvenirs did not come forward during the excursion, as there was no option to purchase souvenirs at the excursion's location.

A component that is not in the framework but what did come forward during this study was using all five senses during the experience, which did come forward during the survey. These findings are consistent with the study done by B. Joseph Pine & Gilmore (1998), who state that the effectiveness and memorability increase by using more senses during an experience. Another finding of this study that indicates memorability is that all survey participants would want to do a similar excursion and recommend it to others. According to literature, this indicates their loyalty and satisfaction (Zhang et al., 2019), indicating memorability (Kivela & Crotts, 2006). Altogether, the findings indicate that saline food experiences are memorable.

The memorability of the saline food experience could have positive effects on environmental protection as well as the creation of awareness for salinization. That touristic saline experiences could create awareness for the salinization issues in the Netherlands is captured in statements by three of the survey participants about what they learned from the excursion and consistent with Leer's (2020) work that deals with awareness creation during a food experience. These findings are important for the connection between tourism and salinization issues. It might also be that saline experiences could be a form of education in sustainability to inspire sustainable behavior after the journey, as Leer (2020) described as an important factor that makes an experience sustainable. This phenomenon was mentioned during the interviews; however, the education effects on sustainable behavior of the survey participants after the saline excursion were not researched during this study.

Saline experiences could help create saline agriculture, as locally grown saline vegetables could be a good addition for the Wadden Kitchen, a shared culinary kitchen for the Wadden region (Stichting Waddengroep et al., 2020). In the interviews was mentioned that the taste of saline vegetables compliments other flavors of this region. Chefs already use saline vegetables in their menus; however, the vegetables used are not always locally sourced. Chefs do want to use local versions of the saline species; however, there is not enough forage for every restaurant. Besides, foraging is time-consuming, and there is also not enough local saline agriculture for every restaurant to buy locally, and if bought from agriculture, it needs to be reliable. If chefs use saline vegetables for their dishes, they need to know that they can expect a certain amount of produce. It is not certain for all the in the wild growing saline vegetables on Terschelling how well they perform when cultivated. It could be investigated in future studies whether these saline vegetables perform well enough when cultivated. The consumption of locally cultivated saline vegetables by tourists could encourage the development of sustainable saline agriculture, bringing new market opportunities. These findings represent a direct demonstration of Sims' (2009) arguments about sustainable food experiences.

Sustainable agriculture developments in the Wadden region could also provide resilience in the food supply when salinization increases due to climate change. When fertile soils are decreasing, saline agriculture could become important for food security (Negacz et al., 2021), an important aspect when determining whether a food experience is sustainable (Hall, 2020).

The saline vegetables researched in this study are seasonal; they do not grow the whole year-round. This will impact the availability of the locally grown species, making them unavailable in winter. It is suggested to investigate further whether there are saline vegetables that grow in winter and whether they are suitable for agriculture. Despite this, the fact that the saline vegetables will only be available during late spring and summer can also make them more appealing to tourists because seasonal food encourages their sense of place and search for authenticity (Scarpato, 2002).

The results of this study show that there are possible connections between saline agriculture and tourism. The development of sustainable saline agriculture can be enhanced by tourists' desire for local food and memorable experiences.

5.2 Limitations

The data in this research contributes to a clearer understanding of the possible connections between tourism and saline agriculture. However, some limitations to the study must be addressed. First, the results of this research are part of a case study on Terschelling, an island that is already home to naturally growing saline vegetable species and tourism. Therefore, the generalizability of the results is limited.

Second, this study was done from March till the end of June in the year 2021, during the COVID pandemic. The COVID pandemic had significant impacts on the tourism and catering industry. During the research period, there were restrictions on the number of people that can meet up, inside or outside. This affects with whom people can go on a holiday, whether they can participate in activities, and if activities can be organized. The restrictions on tourists' activities might have had an impact on the survey results. It had an impact on the number of excursions researched. For this research, it was possible to hand out the survey during two saline excursions; however, more data would have given a broader view of how tourists experience saline food. Besides COVID restrictions, the cold spring caused many saline vegetables to bloom late, also impacting saline excursions.

Third, most interview participants have a positive attitude towards saline vegetables or are involved with saline agriculture. It is possible that this might have steered the results towards a more positive attitude towards the potential of saline vegetables. This study focused on chefs that already use saline vegetables in their kitchens. To develop a full picture of the attitude towards saline vegetables, additional studies that focus on chefs that do not use saline vegetables will be needed.

6. Conclusion

With increasing salinization issues worldwide, it is essential to look at different possible developments for sustainable saline agriculture. This research connects saline agriculture to tourism experiences by linking tourists' desire for local food and authenticity to the local aspects of saline agriculture.

Tourists consider saline vegetables to be part of Terschelling's culture and the island's landscape, therefore perceiving them as authentic, even though historically saline vegetables had no part in Terschelling's food culture. Over the years, foragers and chefs use saline vegetables increasingly and found them on the menu of multiple Terschelling restaurants. The vast majority (84%) of the saline food excursion participants rated saline food as tasteful and relatively novel. All survey participants would want to do a similar excursion as well as recommend it to others. These different factors all contribute to the memorability of the saline experience.

The memorability of the saline experience could have positive effects on environmental protection as well as awareness creation for salinization, important factors regarding experience sustainability. A sustainable food experience should inspire sustainable behavior after the experience, benefit not only tourists but also the local community and their economy, as well as involve the whole food chain.

The consumption of locally grown saline vegetables by tourists could encourage the development of sustainable saline agriculture, bringing new market opportunities. Chefs do already use saline vegetables in their menus; however, the vegetables used are not always locally sourced, and foraging saline foods is time-consuming. At this moment, the saline garden is the only provider on Terschelling of saline vegetables through agriculture. If the saline garden would expand or new saline agriculture initiatives would arise on Terschelling, chefs would be more interested in getting their saline vegetables from local saline agriculture. The expansion of saline agriculture needs to be carefully managed and performed in places where the soil is already salinized to prevent further salinization.

To better understand the implications of these results, future studies could address the following subjects: the perception of saline vegetables by chefs that do not use them, the reliability of the harvest from the wild saline vegetable species once cultivated through saline agriculture, possible saline winter vegetables, and experience research that focusses on different kinds of experiences like dinners and lunches.

By analyzing the role of saline vegetables in the food culture of Terschelling and how tourists experience them, this thesis has shown that there is a potential for saline vegetables to be part of sustainable tourism experiences. The saline experience creates memorability, helps environmental protection, and creates awareness on salinization issues.

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Appendix A Common interview questions

Common questions in the interviews that mainly focused on foraging were:

- Where are you from?
- Since when do you forage saline vegetables?
- How did you got to know saline vegetables?
- Which saline vegetables do you forage?
- What is the taste of those vegetables?
- How do you prepare saline vegetables?
- Are saline vegetables part of the culinary culture of Terschelling?
- Are saline vegetables part of Terschelling?
- Do you know other people who forage for saline food on Terschelling?

Common questions that were asked to chefs:

- Where are you from?
- For how long have you been a chef?
- Do you cook according to the seasons?
- How important is this for you?
- With which saline vegetables do you use in your kitchen?
- Could you describe the flavors?
- Why do you use saline vegetables?
- What do you prepare with saline vegetables?
- Where do you find inspiration to prepare food using saline vegetables?
- How are the saline dishes perceived by your customers?
- Are saline vegetables part of the culture of Terschelling?

Appendix B Survey questions for the saline excursion

Vragenlijst zilte excursie

O Anders, namelijk

Voor mijn masterthesis aan de VU Amsterdam doe ik onderzoek naar de zilte culinaire ervaringen en belevingen van toeristen. Ik ben benieuwd hoe u de zilte excursies ervaart. Het invullen van de vragenlijst duurt ongeveer 5 minuten. De vragenlijst bestaat uit 2 pagi - na's. Voor meer vragen kunt u mij altijd roepen of achteraf benaderen via mijn email: suzanneveen96@gmail.com

Er zijn geen goede of foute antwoorden: ik ben alleen geïnteresseerd in uw mening. Uw antwoorden zijn strikt vertrouwelijk. De eindre sultaten van het onderzoek zijn volledig anoniem en op geen enkele manier individueel te herleiden. Door deze vragenlijst in te vullen, geeft u toestemming om uw antwoorden voor wetenschappelijke doeleinden te analyseren.

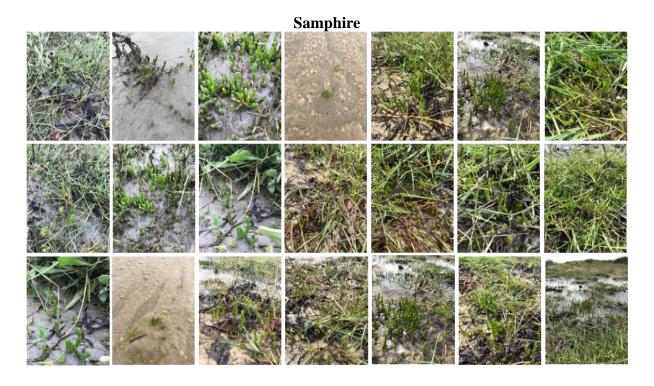
Geef hieronder aan of u het wel of niet eens bent met deelname aan de vragenlijst onder de bovengenoemde voor - waarden.

O JA O NEE 2.3 Hoe smaakvol vond u de zilte groenten op een 1. Algemene vragen zilte excursie schaal van 1 tot 5? 1.1 Bent u op vakantie op Terschelling? 1 is helemaal niet smaakvol, 5 is heel erg smaakvol AL.O 02 04 O NEE, namelijk 1.2 Heeft u vaker een food excursie gedaan? 3. Vragen over het fies cedeel te zilte tuin bezoek Denk aan proeverijen, wadlopen, wijn/bierproeverij... 3.1 Wat vond u van dit deel van de excursie, kunt u het O NEE beschrijven? O JA, namelijk 1.3 Met wat voor gezelschap neemt u deel aan de zilte O Individueel O Partner O Gezin O Vrienden O Anders, namelijk 1.4 Hoe bent u bij Flang in de Pan terecht gekomen? O Google O Facebook O Instagram O Kennis/vrienden O Website FlangindePan O Website DeZilteSmaak O VVV O Tip ondernemer O Tip bewoner 3.2 Hoe goed was de gids tijdens de excursie? O Anders, namelijk 1 is helemaal niet goed, 5 is heel erg goed 1.5 Waarom heeft u voor de zilte excursie gekozen? 04 033.3 Hoe vernieuwend was de informatie voor u? 1 is helemaal niet vernieuwend, 5 is heel erg vernieuwend 04 Ω_2 O305 3.4 Was dit deel van de excursie een toegevoegde waarde aan uw algehele ervaring? 1.6 Wat waren uw verwachtingen van de zilte excursie? O NEE O JA, namelijk omdat 2. Vragen eerdere ervaringen met zilte groenten 4. Vragen proeverij 2.1 Heeft u eerder zilte groente gegeten? 4.1 Hoe verwachtte u dat de zilte groenten zouden sma -O JA O NEE ken voordat u ze had geproefd? 2.2 Zo ja, welke zilte groenten heeft u eerder gegeten? O Zeekraal O Lamsoor O Zee-aster O Zeekool O Zoutmelde O Zeevenkel O Strandbiet O Zoutmelde O Schorrenkruid O IJskruid O Oesterblad

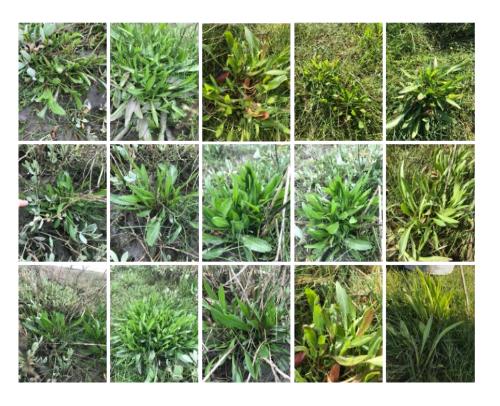
4.2 Omschrijf de smaak en textuur van de zilte groenten na het proeven. Denk aan bitter, zout, zoet, zuur, umami, knapperig, romig	5.2 Wat heeft u geleerd van de zilte excursie?	
4.3 Hoe smaakvol vindt u de zilte groenten op een schaal van 1 tot 5? 1 is helemaal niet smaakvol, 5 is heel erg smaakvol O1 O2 O3 O4 O5 4.4 Hoe vernieuwend is de smaak voor u? 1 is helemaal niet vernieuwend, 5 is heel erg vernieuwend O1 O2 O3 O4 O5	5.3 Zou u vaker een soortgelijke excursie doen? O JA O NEE, omdat 5.4 Zou u de zilte excursie aanraden aan vrienden of familie? O JA O NEE, omdat	
4.5 Hoe smaakvol vindt u de gerechtjes? 1 is helemaal niet smaakvol, 5 is heel erg smaakvol O1 O2 O3 O4 O5 4.6 Hoe vernieuwend is het gerecht voor u? 1 is helemaal niet vernieuwend, 5 is heel erg vernieuwend O1 O2 O3 O4 O5 4.7 Zou u vaker zilte groenten eten? O JA O NEE, omdat	6. Vakantie vragen 6.1 Hoe belangrijk is lokaal eten op vakantie voor u? 1 is helemaal niet belangrijk, 5 is heel erg belangrijk O1 O2 O3 O4 O5 6.2 Hoe belangrijk is lokaal eten in het algemeen voor u? 1 is helemaal niet belangrijk, 5 is heel erg belangrijk O1 O2 O3 O4 O5	
4.8 Was dit deel van de excursie een toegevoegde waarde aan uw algehele ervaring? O NEE O JA, namelijk omdat	 6.3 Hoe belangrijk is cultuurbeleving op vakantie voor u? 1 is helemaal niet belangrijk, 5 is heel erg belangrijk O1 O2 O3 O4 O5 6.4 Horen zilte groenten bij de Terschellingse cultuur? O JA O NEE O Ik weet het niet 7. Algemene vragen 	
	7.1 Geslacht: O MAN O VROUW O ANDERS 7.2 Leeftijd: O <21 O 21-35 O 36-50 O 51-65 O >65	
5. Vragen over de zilte excursie in zijn geheel 5.1 Wat vond u van de zilte excursie in zijn geheel? Denk aan hoogtepunten, missende aspecten etc.	7.3 Hoogst genoten opleiding: O Basisonderwijs O Middelbaaronderwijs O MBO O HBO O Universitair 7.4 Eventuele opmerkingen:	
	Dit is het einde van de vragenlijst, bedankt voor uw deelname!	

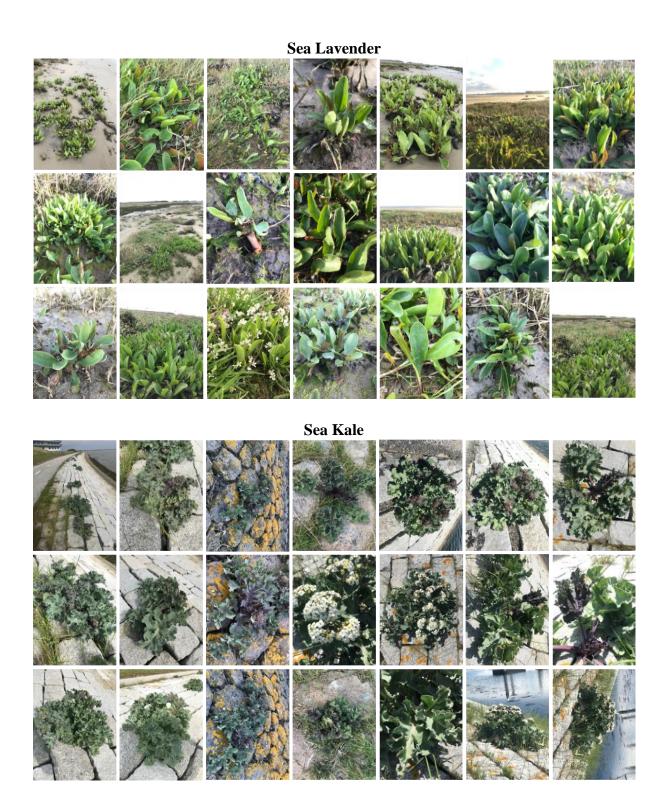
Appendix C Look book wild saline vegetables species Terschelling

All pictures were taken between the 15^{th} of May and the 27^{th} of May in 2021. The species will look different at other times of the year.



Sea Aster

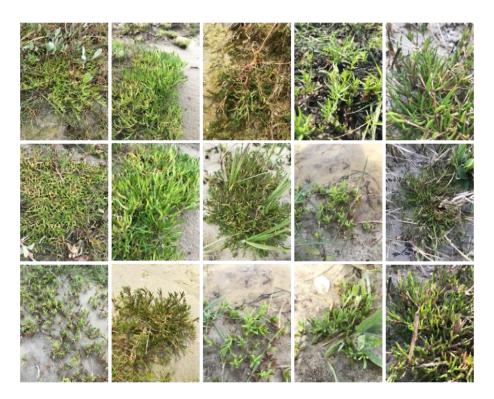








Sea Blite





Sea Beet





Buck's Horn Plantain







Sea Sandwort

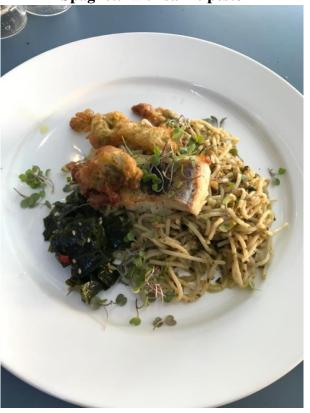


Appendix D
Saline excursion dinner plates pictures

Bread with saline tapenade and oyster leaf 'oysters'



Spaghetti with saline pesto







Desert



Appendix E Original quotes before translation

3.1.2 Data analysis

Table 12. An illustrative sample of the open coding.

Interviewee's view (translated extract from transcript)	Open coding
dat de Noordelingen sowieso niet zo bourgondisch zijn	NO 'BOURGONDISCH' LIFESTYLE
geweest, behalve dan de import of de mensen van hogere	IMPORT FOOD
klasse. En er werd vroeger niet gegeten als een soort vermaak	HIGHER CLASS PEOPLE
zoals wij eten maar er was gewoon een noodzaak om	FOOD AS NECESSITY
bouwstoffen te krijgen om het zware werk te doen	HARD WORKING PEOPLE

4.2.1 Saline vegetables in food culture Wadden region

- * Zilte planten, lamsoor, zeekraal, dat was armeluiseten, dat aten ze eigenlijk niet ... (Annette van Ruitenburg)
- * Het zou echter wel zo kunnen zijn dat mensen het [zilte groenten] vroeger gegeten hebben in tijd dat er niets anders was. (VVV)
- * Wat veel gedaan werd, en dat zie je ook wel in die verhalen terugkomen, er werd ontzettend hard gewerkt, veel lichamelijk. Voor veel mensen was het zwaar leven in de Waddenregio. Als je op de Waddenkust, Friesland of Groningen, werkte als ja, om zoden aan de dijk te zetten, om plaggen te steken om die kwelders dicht te gooien zodat de koeien konden grazen, als je dat soort werk deed dan had je ontzettende honger. Dus wat werd er gegeten? Uh..., aardappelen maar ook gort en ook wel van die pappen van die zware meelkost. (Annette van Ruitenburg)
- * En de meeste mensen kijken er niet naar. Want die begrijpen niet wat je daar zit te doen. [...] Dan zeiden ze van: "Wat doe je nou?" Ik zei: "Nou dit" "Puh wat moet je daar nou mee?" Ik zei: "Lekker opeten straks, hè" Maar uh, ze kennen het hier niet. (A-1)
- * Eigenlijk alles wat hij weet van zilte groenten, heeft hij van A-1 geleerd. (A-2)
- * Je ziet wel een nieuwe trend, het is ineens hip, de zilte groenten en het wild plukken. (VVV)
- * ... om van alles van lamsoor te maken, zeeaster eigenlijk hè, niet de goede term ... (Anette van Ruitenburg)
- * ... de zeeaster is eigenlijk de lamsoor volgens mij ... (Werner Zuurman)
- * ... het is gewoon echt een toevoeging aan de keuken ... (Sander Wever)
- * ... we zijn met een paar restaurants begonnen en die waren echt heel erg enthousiast ... (Flang Cupido)
- * ... we gebruiken het vaak echt om het gerechtje optisch af te maken maar ook om nog wel een mooie zilte smaak toe te voegen ... (Sander Wever).
- * ... dan kun je die op zich als alleenstaand ook fantastisch gebruiken natuurlijk ... (Flang Cupido)
- * ... het is natuurlijk niet de bedoeling dat je een heel jaar hard werkt en het eigenlijk niks overhoudt omdat je zo plaatselijk en lokaal wil werken maar als mensen hier prijzen vragen die de pan uitrijzen dan moet je daar een aanpassing op doen ... (Werner Zuurman)

- * ... al die ingrediënten lokaal vergaren wordt lastig, misschien als je een klein zaakje hebt gaat dat lukken, maar in een grote tent is het moeilijk om genoeg te krijgen ... (Hans Gerlofsma)
- * Nou ja, het lukt niet met alles helemaal uit Nederland, af en toe een stukje Duitsland, België, maar eigenlijk wel met een bewuster idee dan het goedkoopste inkopen wat je kan krijgen zeg maar. (Sander Wever)

6.2.3 Saline vegetable cultivation

- * ... dat is niet te doen, massatoerisme maakt het moeilijk om alles lokaal te verkrijgen ... (Hans Gerlofsma)
- * ... er moeten ook voedselaanbod ontwikkelingen komen ... (A-7)
- * ... je zal ze ook moeten helpen met innovatieprojecten, met subsidies ... (Annette van Ruitenburg)
- * ... dus dat je de positieve prikkel gebruikt om te veranderen in plaats van regels te gaan stellen ... (Annette van Ruitenburg)
- * ... en als er toch zilte landbouwgrond niet te gebruiken is voor bepaalde onderdelen maar wel voor de zilte aardappel of voor de zeekraal of voor de lamsoor dan heb je natuurlijk wel een product ... (Annette van Ruitenburg)

4.2.4 Sustainable food trend

"Vestiging van een culinaire traditie van hoogwaardige waddengastronomie, gedragen door duurzame streekeigen producenten en culinaire ondernemers, verbonden met toeristisch-recreatieve beleving van het Werelderfgoed Waddenzee als bakermat van smaak, gezonde voeding en bewust leven." (Stichting Waddengroep et al., 2020, p. 4).

- * Als je zegt van wat is nou een onderscheidende smaak wat bij een Waddenkustgebied hoort, dan is dat toch wel het eerste waar je aan denkt is zilt. Dus ik denk dat dat wel heel belangrijk is binnen het verhaal zeg maar. Om daar te kijken van ja daar kun je wel iets onderscheidend mee gaan doen. Kustprovincie die aan zee ligt, ja, die zal toch iets met dat zilte verhaal moeten doen. Dan zou zilte groente een belangrijk verhaal daarin kunnen worden. (A-7)
- * Als je een mooi gerechtje met Waddenoesters van hier hebt, en dan de omschrijving op de kaart of hoe het aan tafel wordt uitgelegd: oesters van Terschelling met komkommer, vlierbloesem, zilte groentes van Terschellinger Wad. (Annette van Ruitenburg)
- ... mensen worden ook steeds wel bewuster ... (Marjanna van der Meulen)
- * ... overal zie je dat, zie je dat groene bewustzijn opkomen ... (A-7)

4.2.5 Wadden tourist

- * En ja, bij, op de eilanden speelt eigenlijk een ander probleem, daar heb je juist soms wel het gevoel van 'over' toerisme. (A-7)
- * Het is van belang om een juiste balans te behouden tussen toerisme en de bewoners. Het eiland is een mono-economie waarbij ruim 80% direct of indirect afhankelijk is van toerisme. Toerisme zorgt ook voor de hoge mate van voorzieningen voor de bewoners. Een aantal inwoners wil vooral rust en ruimte. Die is ook volop aanwezig op het eiland. We delen dit graag met onze gasten, er is ruimte genoeg op Terschelling (VVV).
- * De duurzame toerist is wel belangrijk voor Terschelling voor bijvoorbeeld het natuurbehoud. (VVV)

- * En als je alle clichés van de Wadden naast elkaar zet dan krijg je inderdaad de vlakkige toerist die voor de bitterbal en de saté komt, maar als je alle unieke van het Werelderfgoed van een van de mooiste wildernissen van de Wadden [...], de cultuurhistorische aspecten, [...], ja dan kan je een, ik zeg maar even de groene/ geïnteresseerde toerist naar je eiland halen. [...] Dus dan ga je een toerist aantrekken die onderweg ook nog eens, ja misschien de rommel opruimt van een ander of die ook een keertje helpt met de akker. Dus die niet alleen maar neemt, maar ook wat geeft. En waarbij je dus de verbindingen maakt van je verblijfplek in je hele, ja de hele context van de Wadden. En dan gaat hij met een verrijkt, nieuwe sfeer, nieuwe inspiratie weer naar huis. (Annette van Ruitenburg)
- * Dus ja, door gewoon zo te vertellen met wat je eigenlijk allemaal zo kan eten uit de natuur, gaan mensen al anders kijken naar de natuur. (Marjanna van der Meulen)
- * Ik denk dat dat héél erg belangrijk is, ik denk dat dat de basis is van het respect voor de natuur, dat mensen begrijpen hoe het werkt, hè. Dat het enorm van belang is dat mensen die educatie krijgen, en weten wat het is en hoe het werkt. Dat men inzicht krijgt in hoe natuur en systemen werken zeg maar en dat je dan daar ook met een goede manier mee moet omgaan. (A-7)
- * Wij willen zeg maar meer dat de gast ook bewust is van wat die eet en waarom die het eet. (Sander Wever)

Dus dat we ook de mensen eigenlijk bewustwording willen geven van, niet van 'oh wat fijn, de aarde verzilt en we kunnen lekker elke dag zeekraal eten' maar, nou als het er dan toch is, wat kunnen we doen als mensheid om te proberen toch die trend te verbreken of het proces te vertragen. Het is aan de ene kant de bewustwording van ja consument ja van ons maar goed dan is het er, wat kan je er allemaal mee hè en dat soort zaken. (Annette van Ruitenburg)