

Exploring the producers' perspective on local industry development

- A case study of the conditions for blackcurrants, strawberries and arctic raspberries in northern Sweden

Producenternas perspektiv på lokal branschutveckling

- En utforskande fallstudie av förutsättningarna för svarta vinbär, jordgubbar och allåkerbär i norra Sverige

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There are a lot of people I want to thank, and I will probably never be able to include them all here even if I allowed this section to be longer than the actual thesis itself, but I want to name a few. My first thank you goes to my mother, for teaching me to listen to the stories people tell as well as those that are hidden between the lines. Without that I doubt I would be writing this thesis. My second thank you goes to all the people that have helped me make this thesis possible, especially the people I have interviewed that were so kind and open with me. Hushållningssällskapet Norrbotten-Västerbotten has also been of great help as they helped me set the subject and showed such interest in their producers and how to better help them. The stipend provided by the foundation Stiftelsen Nilsson-Aschans stipendiefond, awarded by the Royal Swedish Academy of Agriculture and Forestry (KSLA), which I received to cover my travel expenses when conducting the interviews has also been of great help to make this thesis a reality.

I hope that this thesis will help to gain a better understanding of the position of producers, both where they stand in their opinions and ideas and in their industries, as well as provide some ideas for the future. Without my supervisors, Sara and Sara, this thesis would not have been possible as they have helped me connect with both people, theories and literature which has given me a starting point as well as support when I have lost myself too deeply in the data. Last, but definitely not least, my boyfriend Filip deserves a huge thank you for supporting me when I stressed out about the writing process.

Abstract

Sweden is working on a national food strategy to increase the competitiveness of Swedish agriculture by increasing the competitiveness of the food value chains and increasing the total food production, in relation to consumer demand. As berries are a horticultural product of high consumer demand, and berries are the main horticultural crop in northern Sweden this case study focuses on berry producers in northern Sweden. The study is based on interviews with blackcurrant, strawberry and arctic berry farmers in Norrbotten and Västerbotten, the two northernmost counties in Sweden. It aims to explore the position (opinions and industry position) of the producers in regards to the berry value chains and the knowledge and innovation systems they are a part of, as a strategic area pinpointed in the national food strategy is knowledge and innovation. In order to achieve this the interviews focused on mapping the value chains, exploring the barriers producers experienced in regards to improving their position and the potential the producers saw in regards to changes in the value chain, support system for producers and product based on their berries. The main findings of this case study are that there is a need for common platforms that bring together different actors in the value chain, and encourages networking and knowledge sharing between them, as well as a stronger support network to capture and help create new knowledge, which is the basis for innovation. There is also a potential for more rural networks, to find new business opportunities for creating added value to consumers by supporting collaborations between for example producers and processors, or producers and tourism agents. The study has also found that there are differences between producers in regards to how they view themselves as producers and in what drives them to produce berries, which influences how likely a producer is to be innovative and open to new ventures that can help to develop the local industry. In addition to the findings about producers and their roles in value chains, the study has also served as an example of how policies and political decisions can affect value chains and the attitudes of its actors for a long time, as in the case of blackcurrants where the production was promoted by local authorities to later become a part of the deregulation of markets.

Sammanfattning

Sverige arbetar för en nationell livsmedelsstrategi för att stärka konkurrenskraften hos det svenska jordbruket, genom att öka konkurrenskraften hos livsmedelskedjorna och öka den totala livsmedelsproduktionen, i förhållande till konsumenternas efterfrågan. Då bär är en trädgårdsprodukt med hög efterfrågan från konsumenterna, och bär är den viktigaste trädgårdsproduktionen i norra Sverige fokuserar denna fallstudie på bärproducenter i norra Sverige. Studien bygger på en kvalitativ metod med intervjuer med svartvinbärs-, jordgubbs- och allåkerbärsodlare i Norrbotten och Västerbotten, de två nordligaste länen i Sverige. Den har som mål att undersöka producenternas position (åsikter och branschposition) rörande bärens värdekedjor och de kunskaps- och innovationssystem de är en del av, då ett strategiskt område i den nationella livsmedelsstrategin är kunskap och innovation. För att uppnå detta fokuserade intervjuerna på att kartlägga värdekedjorna, utforska vilka hinder producenter upplevde stod i vägen för att förbättra deras position och vilken potential producenterna såg gällande förändringar i värdekedjan, stödsystemet för producenter och produkter baserad på deras bär. De viktigaste resultaten som kom av denna studie är att det finns ett behov av gemensamma plattformar för att sammanföra olika aktörer i värdekedjorna, vilka uppmuntrar nätverkande och kunskapsutbyte mellan dem, liksom ett starkare stödnätverk för att fånga och bidra till att skapa ny kunskap, vilket i sin tur ligger till grund för innovation. Det finns också en potential för tydligare landsbygdsnätverk, att hitta nya affärsmöjligheter för att skapa mervärde för konsumenterna genom att stödja samarbeten mellan till exempel producenter och förädlare, eller producenter och turismaktörer. Studien fann också att det finns skillnader mellan producenter när det gäller hur de betraktar sig själva som producenter, och i vad som driver dem att producera bär, vilket påverkar hur sannolikt det är för en producent att vara innovativ och öppen för nya satsningar som kan hjälpa till att utveckla den lokala branschen. Utöver resultaten om producenterna och deras roller i sina värdekedjor har studien också visat på hur politik och politiska beslut kan påverka värdekedjor och attityderna hos deras aktörer under lång tid, som i fallet med svarta vinbär där produktionen främjades av lokala myndigheter för att senare bli en del av marknadsavregleringen.

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Translations and explanations

As large parts of this thesis are based on interviews carried out in Swedish, and concerns institutions and regions that do not always have good translations, some Swedish names will be used. Below is a list of these names, and a brief explanation of them.

| | | |
|-------------------------------|---|--|
| Hushållningssällskapet | The Rural Economy and Agricultural Society | A regionally based organisation working with extension and rural development. These societies exist in most counties of Sweden, the one mentioned in this thesis is the one working in the counties Norrbotten and Västerbotten. |
| Länsstyrelsen | The County Administrative Board | A regional government agency of Sweden, one in each county all appointed by the Swedish government. |
| NBG | Norrbottens Bär och Grönsaker | A registered business association for producers of berries and vegetables in the Norrbotten region of Sweden. |
| Norrbotten | (North Bothnia) | The largest and northernmost county of Sweden, covering over 98 000 km ² . |
| SLU | The Swedish University of Agricultural Sciences | The only Swedish university working with the fields of agriculture, horticulture and forestry in both research and education. |
| Västerbotten | (West Bothnia) | The second largest and second northernmost county of Sweden, covering over 55 000 km ² . |
| Öjebyn | | A part of the city of Piteå, Norrbotten where Hushållningssällskapet Norrbotten-Västerbotten runs Öjebyn Agro Park, a research station including horticultural and agricultural field trials. SLU previously ran the research station, as well as one in Röbäcksdalen in Umeå, Västerbotten. |

1. Introduction

The Swedish government has recently begun setting the goals for a new national food strategy. The overarching goal of the strategy is to increase the competitiveness of Swedish agriculture, by making the food value chain competitive and increasing the total food production, while reaching relevant environmental goals (Regeringskansliet, 2017). The reason behind the goal is a wish to create growth, job opportunities and to contribute to sustainable development throughout the country. This increase in production is meant to respond to consumer demands, and to help improve the self-sufficiency degree in Sweden to decrease the vulnerability in the food system. The strategy has three strategic areas: Rules and regulations, consumers and market, and knowledge and innovation (Regeringskansliet, 2017).

Despite the goals of the food strategy there is a trend for decreasing agricultural land in Sweden, with calculations showing that an estimated 10,33% of all land in Sweden was considered agricultural areas in 1961, but only 7,47% in 2011 (FAOSTAT, 2016a), a decrease of 1,2 million hectares, as what was previously agricultural land has been used for e.g. forests and city expansions (SCB, 2013). Ever since the EU entry in 1995, the value of agricultural land has increased continuously in Sweden, and the highest prices found in the South of Sweden and the lowest in the North, at 180 000 SEK/ha and roughly 2 400 SEK/ha respectively (SCB, 2013). This makes agriculture in the North interesting from an economic standpoint, especially if cultivars and cultivation methods that provide better performance under northern conditions are developed.

Europe has been the main currant producer globally for as long as there is data available, since 1961, and has steadily been supplying 99% of the global production of currants (FAOSTAT, 2016b). The largest producing countries in the past ten years are Russia, Poland, Ukraine and Austria with Russia producing about over 350 million kg currants annually and Poland just short of 200 million tonnes while both Ukraine and Austria come in at about 20-25 million tonnes (FAOSTAT, 2016b). As a comparison Sweden produces around 200-300 tonnes, merely a thousandth of the currant production of Ukraine. Still, a majority of the blackcurrants produced in Sweden come from the northern parts of the country (Jordbruksverket, 2015).

1.1 Background for the case study

The berry production in Sweden has been relatively stable since the turn of the century, when looking at the cultivated area. What has changed however, is the number of companies involved in berry cultivation (see figure 1 for comparison). These have been decreasing steadily since the mid 1980's, reflecting a general trend in Swedish agriculture for decreasing number of companies, and increasing farm sizes (SCB, 2013). In the berry sector the increasing farm sizes are especially reflected in strawberry cultivation, which also makes up about 80% of the outdoor cultivation of berries in Sweden (Jordbruksverket, 2015).

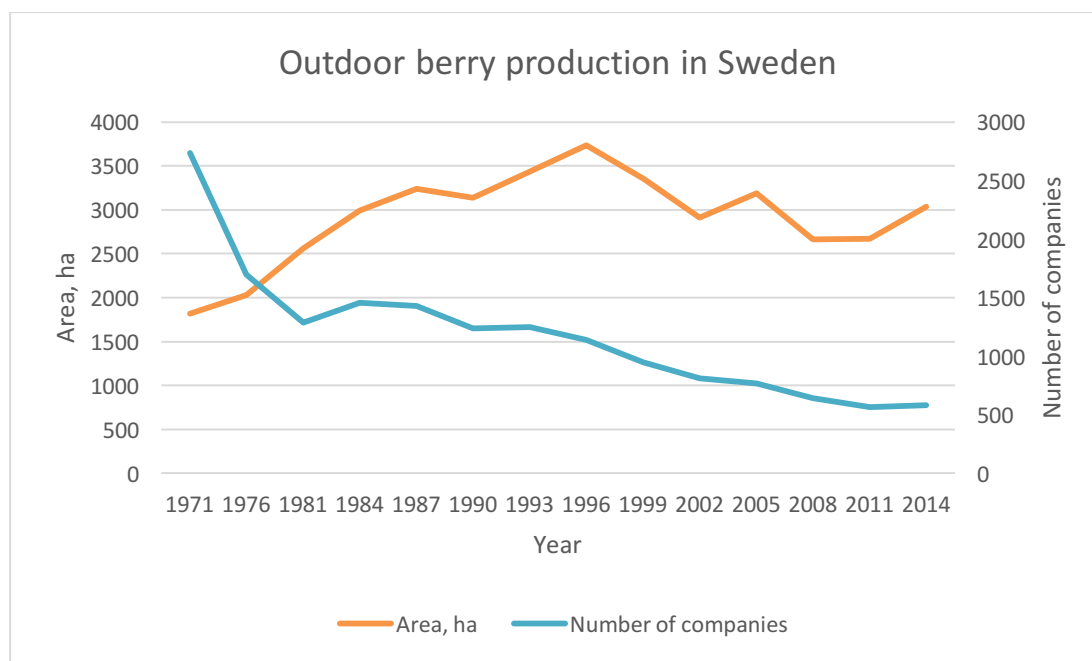


Figure 1. The trends over the years 1971 to 2014 for berry cultivation in regards to cultivated area (hectares) and number of companies. (Jordbruksverket, 2000, Jordbruksverket, 2015)

When discussing the berries cultivated in Sweden strawberries are most important when considering cultivated area as well as harvested quantities. While the cultivated area has been relatively stable over the past 10 years (Jordbruksverket, 2015), it is still much lower than in the mid 1990's. The harvested quantities have increased greatly and are still showing a rising trend, which shows in increased yields (see figure 2). For blackcurrants the same parameters have shown decreasing trends since 2000, though there has been a small rise in the last survey in 2014. Simultaneously with the decreasing trends for blackcurrants raspberries are showing increasing trends in cultivated areas, production quantities and yields (Jordbruksverket, 2015).

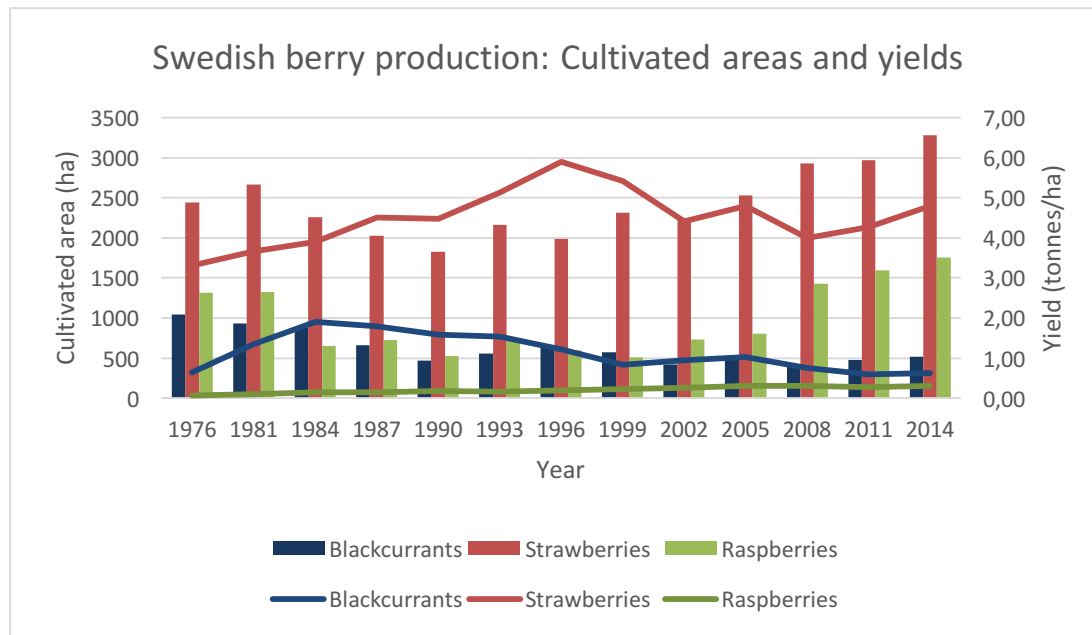


Figure 2. The area (hectares) cultivated with the three most commonly produced types of berries (strawberries, blackcurrants and raspberries) in all of Sweden over the years 1976-2014 are shown in the lines, corresponding to the primary axis while the yields of the same types of berries over the same time period are shown in the staples which correspond to the secondary axis. (Jordbruksverket, 2000, Jordbruksverket, 2015)

Within Sweden there is a clear trend showing a decline of blackcurrant production (see figure 2) where the cultivated area had decreased to 316 hectares in 2014 (Jordbruksverket, 2015), making it only a third of the 954 hectares cultivated with blackcurrants in 1984 (SCB, 2012). As this has been the second largest berry production in Sweden over the past decades it is important to investigate the strategic position of the berry producers in Sweden, and particularly in northern Sweden where blackcurrants have been the berry most commercially produced. The decline appears to correlate well with the Swedish entry into the European Union in 1995, which makes it relevant to look into how berry producers perceive the EU entry in regards to their production and the berry value chains.

As the interest for locally produced food has increased, and berries have become a staple in most freezers to be constantly available for smoothies and colourful antioxidant additions to porridge and yoghurt, it would make sense for Swedish berry producers to experience a revival.

Not much has been written about the berry production in northern Sweden in the past 20 years apart from reports by Elisabeth Öberg for Hushållningssällskapet Norrbotten-Västerbotten. The following part about the state of the berry production in northern Sweden will therefore be based on her reports. It mainly focuses on Norrbotten county, as berry

production is much smaller in Västerbotten county (less than 50 hectares are cultivated for berry production, see figure 3).

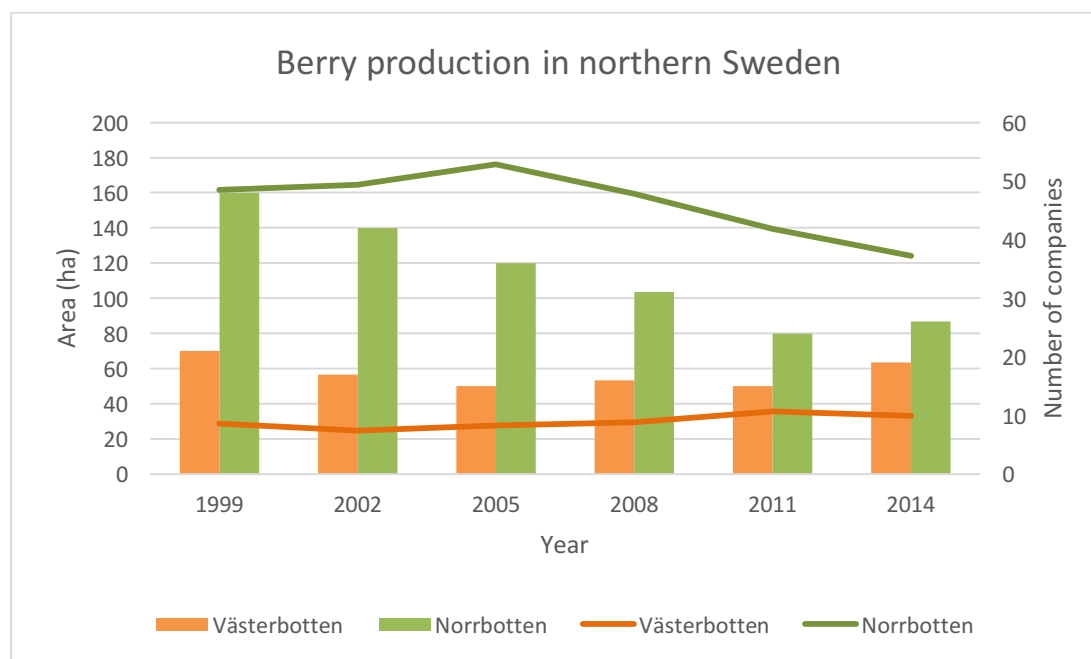


Figure 3. Cultivated area (hectares) and number of companies involved in berry production in the two northernmost counties of Sweden – Västerbotten and Norrbotten – over the past 20 years. (Jordbruksverket, 2000, Jordbruksverket, 2006, Jordbruksverket, 2009, Jordbruksverket, 2012, Jordbruksverket, 2015)

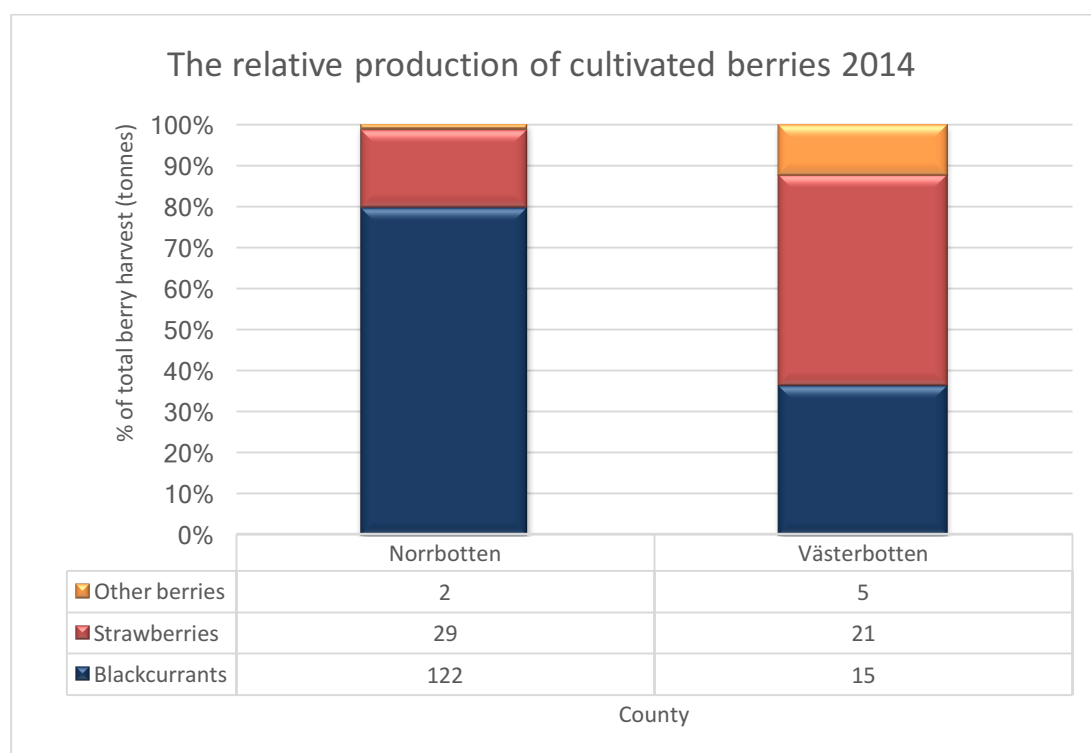


Figure 4. The share of the total berry production (harvested tonnes) in the two northernmost counties of Sweden held by different types of berries in 2014. The two most common type of berries are blackcurrants and strawberries, while the category for other berries is not defined in the statistics, but especially for Västerbotten does include arctic raspberries according to information from Hushållningssällskapet Norrbotten-Västerbotten and the interviews conducted for this thesis. (Jordbruksverket, 2015)

As previously mentioned agricultural land is decreasing in Sweden, and in Norrbotten 227 hectares of land used for commercial outdoor cultivation have disappeared in the past 20 years, together with 77 companies in the horticultural sector (Öberg, 2015). Berry production has been the most common category of horticultural crop cultivated outdoor in northern Sweden, with blackcurrant being the most produced berry crop (see figure 4), but commercial horticultural production has never been big in northern Sweden, especially when comparing it to more southern regions. A push for blackcurrant production from regional politicians in the early 1980's in Norrbotten lead to it becoming the leading blackcurrant producing region in Sweden by the end of the decade when it produced a third of all blackcurrants in Sweden and covered almost 280 hectares of land (Öberg, 2015). In 2014 it was down to 112 hectares (Jordbruksverket, 2015).

Recently there is an increased public interest in agriculture in Norrbotten and since the end of 2016 Norrbotten county has its own regional food strategy for the years 2016-2020 (Stenmark et al., 2016), with the vision "*Mer norrbottnisk mat på tallrikarna*" ("More food from Norrbotten on the plates", Stenmark et al., 2016, p. 30). This comes in addition to the national food strategy, to further emphasize and work according to the regional conditions. The strategy focuses a lot on regional collaboration between different value chain actors as well as industries and it has five prioritized areas, of which particularly three are of interest for berry producers: *Competitive food production and energy supply*, which concerns better communication and understanding in the value chains; *competence management*, which concerns the development of extension and education in the area of production and rural development; *identity and pride*, which concerns raising the perception of products produced in the region by increasing communication and collaboration between industries such as agriculture and tourism (Stenmark et al., 2016).

While the areas cultivated with berries in Sweden have been decreasing over the past 20 years (Jordbruksverket, 2000, Jordbruksverket, 2015), the consumption of berries has been increasing (see figure 5), both in fresh, frozen and most processed forms. This is also reflected in the imports of fruits, nuts and berries where the imported values are displaying clear increasing trends for the past 15 years (see figure 6).

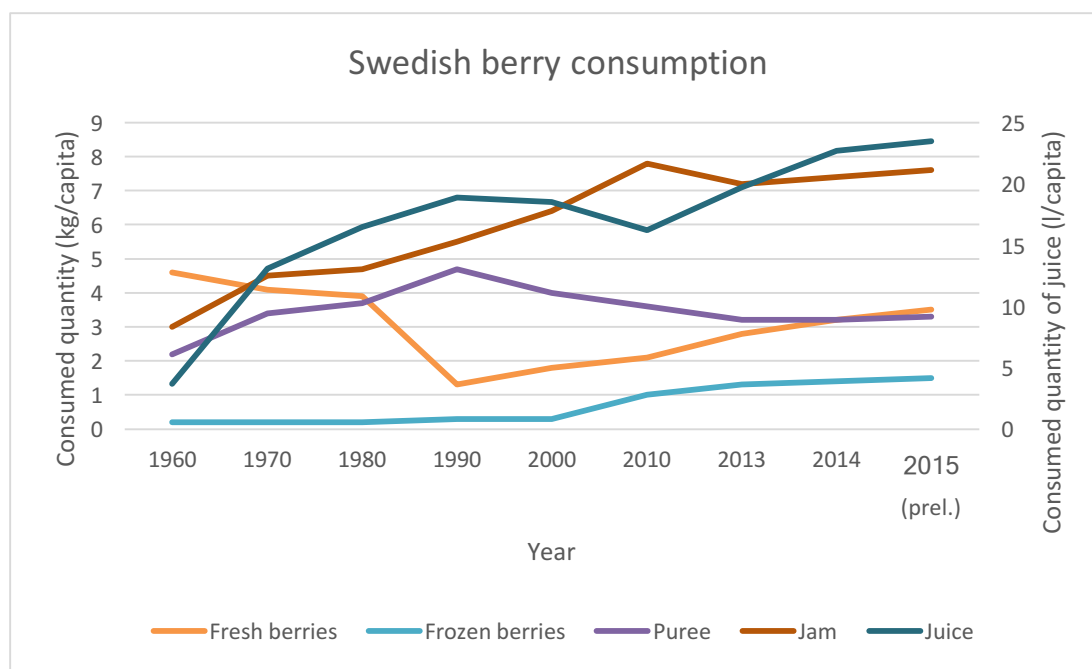


Figure 5. Consumed quantities of fresh and frozen berries, and processed products in the form of purees, jams and juices made from fruits or berries in Sweden for the years 1960-2015. All quantities are given in kg/capita except for juice which is given in l/capita on the secondary axis. (Jordbruksverket, 2016)



Figure 6. Value of imported products (in thousand SEK) according to SPIN2007 codes for the years 2000-2015, where the category fresh produce includes all types of fruit, nuts and berries, except for tropical fruit (SPIN code 01.250); the category juice includes juices made from fruits, berries and vegetables (SPIN code 10.320); the category other processed products includes processed or treated fruits, berries and potherbs (SPIN code 10.390). As the values are much higher for the category other processed products it is found on the secondary axis on the right. (SCB, 2017)

1.2 Purpose and aims

The purpose of this study is to investigate the position and perspectives of berry producers in northern Sweden in regards to their opinions and industry position, by doing a case study of blackcurrant, strawberry and arctic raspberry producers. In order to fulfil this a number of aims have been set:

1. Mapping how the value chain of blackcurrants, strawberries and arctic raspberries have been structured in northern Sweden over the past decades, according to berry producers;
2. Identifying which major challenges producers of blackcurrants, strawberries or arctic raspberries experience in their role as producers;
3. Investigating which opportunities current producers of blackcurrants, strawberries or arctic raspberries see for processed berry products and re-organization of the value chains;
4. Reviewing how the berry value chains in northern Sweden compare to other horticultural value chains with a focus on the role of the producer;
5. Finding relevant suggestions to improve the position of berry producers in northern Sweden, with a focus to promoting increased innovation and processing of berries.

These aims will together help to identify key factors to explain the current conditions of berry production and the berry industry in northern Sweden.

1.3 Delimitations

This project is focused on blackcurrant and arctic raspberry producers in northern Sweden but interviews have also been carried out with a few producers of other berries, primarily strawberries, to gain the perspectives of younger producers. The case study primarily focuses on blackcurrant producers as this has been the major berry produced in northern Sweden for the past decades, and arctic raspberries for its novelty factor and the interest it has gained as a potential delicacy. Due to difficulties contacting producers that ended their production only active producers have been interviewed.

1.4 Outline

This paper will continue by addressing the theoretical framework of the thesis, followed by a section about the research methodology and then a result section. The result section is divided into subsections based on the research aims, in which quotes and information from the interviews are shared. These are divided into categories based on groupings done during the thematic analysis, and the themes are as previously mentioned based on the data. Following the result section is a discussion section in which the results are interpreted and the theoretical framework is applied to the results, in order to provide the results with a structure and language coherent with current research. At the end of the discussion section are two subsections containing suggestions, one for changes to the systems that are studied in this thesis, and one for potential future research topics as revealed by the outcomes of this study. After the discussion section comes a brief section on conclusions stemming from this study, and thereafter a section containing the authors reflections on the study and the work leading up to it. The last section contains the references used in this study, appendix 1 shows the interview guide used by the interviewer and appendix 2 contains all quotes from the interviews presented in the paper in their original language (Swedish). Each quote in the paper is numbered and by looking for the corresponding number in appendix 2 the quote can be easily found.

2. Literature review and theoretical framework

Most studies concerning farmers have focused on only one field of research, such as economics or management, but while this study includes several frameworks drawn from this work in order to create structure, it takes a different approach. Rather than focusing on a field of research it focuses on producers and on all things affecting their berry production and decisions and aims to find structural key points important for understanding the position producers are in, in their industry as well as where they stand in regards to change and innovation. It focuses less on numbers, and more on the internal factors such as motivation, beliefs and contexts, as well as what has created the specific contexts. During my search I have found no literature taking this approach, but have drawn on the frameworks of different fields of research in economics and management.

2.1 Primary producers and innovation

You only need to do a quick Google search to find out how mainstream it has become to now consider it most important for farmers to be not only good growers, but to be entrepreneurs (Forbes, 2014, Guardian, 2014, UN, 2011), focused on the needs and wants of their customers and ready to find that extra something which will give them added value. Added value is always seen in relation to the competition and in order to truly offer added value it is important that the value offered is unique and relevant as well as appreciated by customers (de Chernatony et al., 2000). In search of this added value, and for keeping production efficient and up-to-date, the role of innovation is often pointed out. Definitions of what innovation consist of vary with the focus of a paper, and often refers to technological aspects but for this paper I have opted for a broader definition of innovation, as technological aspects only make up one part of small-scale agriculture:

“We define an innovation as anything new successfully introduced into an economic or social process. In other words, an innovation is not just trying something new but successfully integrating a new idea or product into a process that includes technical, economic, and social components. This definition stresses three important features. First, innovation is the creative use of different types of knowledge in response to social or economic needs and opportunities. Second, a trial only becomes an innovation when it is adopted as part of a process; many

agents try new things, but few of these trials yield practices or products that improve what is already in use. Third, innovations are accepted as such in specific social and economic environments.” (Spielman et al., 2009, p. 400-401)

In addition to this definition, a report by a working group of the European Union’s Standing Committee on Agricultural Research (SCAR) provides additional nuances to the concept of innovation: *“Innovation starts with mobilising existing knowledge. Innovation is a social process, more bottom-up or interactive than top-down from science to implementation./.../ Very often partners are needed to implement an innovation.” (EU-SCAR, 2012, p.9)*

2.2 Strategy

Strategy is important in all lines of business, no matter the scale or industry. Both the research aims concerning the structure of value chains and the aims concerning visions and barriers relate back to strategy and it is therefore important to include scientific theories about strategy in this study. While there are several theories about strategy and which analyses should be used to inform strategy formation, Porter is one of the most cited references on the subject. Porter is a part of what is generally viewed as the Harvard school of strategy and has greatly influenced the concept of what strategy is (Seddon and Lewis, 2003).

In the past operational efficiency – lowering costs and creating more efficient processes than competitors – have been a major focus while strategy has been put on the backburner (Porter, 1996). While operational efficiency is important strategy is at least equally important, and should be focused on strategic positioning – to set your company apart from others by performing activities that are different from competitors’ or by performing the same activities as the competitors, but in a different way (Porter, 1996). In order to gain this unique position a company needs to find its combination of scales when concerning markets, customer needs and customer group. All these three categories can be defined as either broad or narrow, and strategic positioning can therefore occur either by serving few needs of many customers (variety-based positioning), broad needs of few customers (needs-based positioning) or broad needs of many customers in a narrow market (access-based positioning) (Porter, 1996). In addition to this Porter stresses the importance of deciding what not to do in order to align with the strategy, and thereby making sure that the activities of a company fit together so that

they reinforce one another making it hard for a competitor to copy single activities and still gain the same advantages.

2.3 The Five Forces model

In order to create a strategic position in a market or industry the Five Forces model can be used to assess either a current position or where in an industry there may be a gap for a new company, both with the aim of weakening external forces or positioning a company where forces are already weaker. The Five Forces are (Porter, 2008, see figure 7 for a graphic representation of the model):

- **Rivalry among existing competitors** – A more internal force that can be for example price cuts, advertisement and so on. The degree of rivalry depends on the intensity of competition and the basis on which competition occurs. The intensity is influenced by the number of competitors and whether or not their sizes and power are equal, the industry growth rate, and which exit barriers exist for the industry.
- **Threat of new entrants** – A high threat of new entrants forces current companies to focus on operational efficiency in order to keep prices down. The threat depends on how strong the barriers to entry are, which can be for example a benefit of large size, the costs customers would incur by switching to a new company, investment needs, access to existing distribution channels, and government policies.
- **Threat of substitute products or services** – A substitution does not have to occur directly or even in the same industry in order to threaten a product and can be very different from the product as long as it fulfils the same needs, offers a good price-performance and comes with a low switching cost for buyers.
- **Bargaining power of suppliers** – In a value chain strong bargaining powers held by suppliers will mean that they capture more of the value, something which generally happens if the supplier is more concentrated than the industry to which it sells its products, if the industry is not provide the major revenue for the supplier, if a customer of the supplier would face higher switching costs if changing to another supplier, if the product of the supplier are differentiated or cannot easily be substituted.
- **Bargaining power of buyers** – When buyers have negotiating leverage they are powerful relative to the company, something that can happen if there are few buyers,

purchase volumes are large, the products are undifferentiated and can easily be substituted without major switching costs.

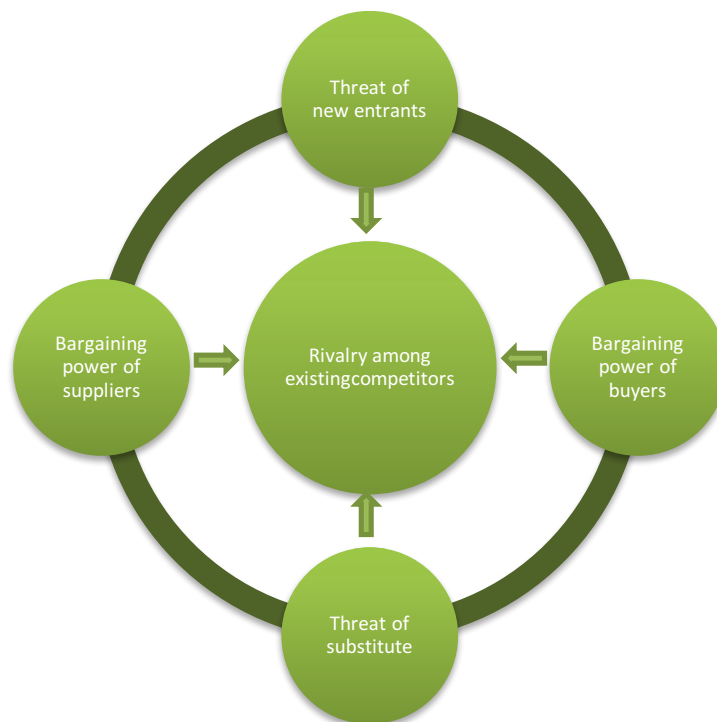


Figure 7. The Five Forces affecting a value chain actor or industry (Porter, 1979, Porter, 2008)

2.3.1 Examples of the Five Forces model in berry industries

Cernusca et al. (2011) have investigated the growing elderberry industry in the USA, based on Porter's Five Forces Model (Porter, 2008). They consider it to be an industry with high growth potential, but also a high risk when it comes to investments due to the many uncertainties that plague the industry (Cernusca et al., 2012).

The industry shows a strong vertical integration with producers generally not only growing their berries but also propagating their own plant material and processing their berries into products of added value. There are also different types of processors involved (neutraceutical manufacturer, winery and other value-adding processors), that cater to different consumer markets, which decreases the bargaining power of the buyers as they are more bound to their berry supplier. All in all this positions the elderberry producers in a quite strong industry position, as is shown in figure 8.

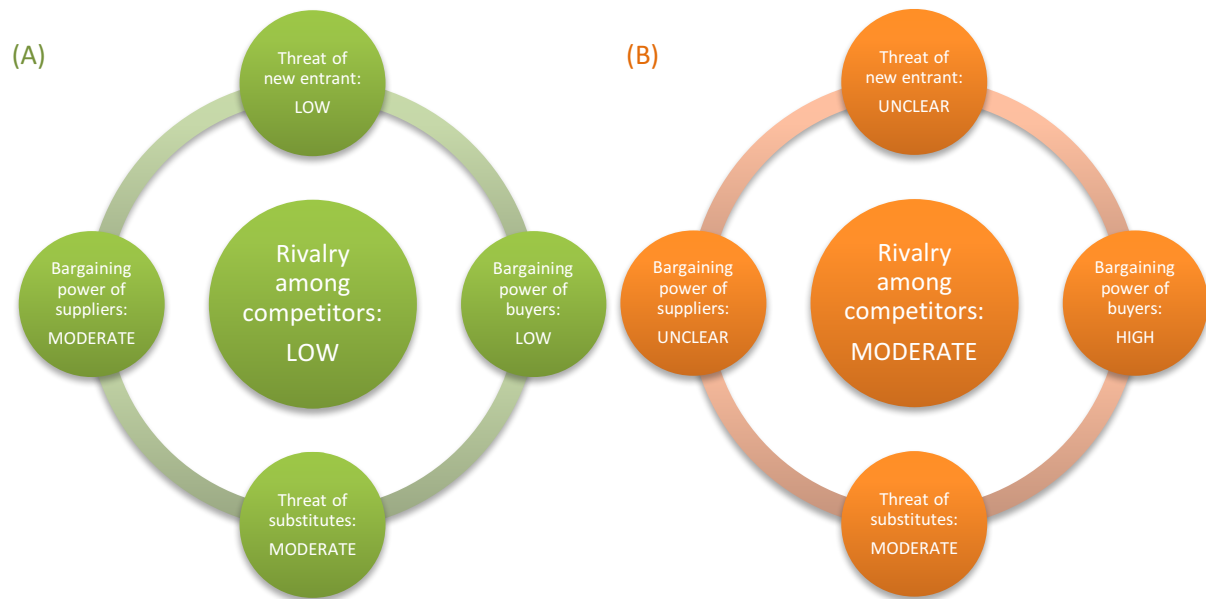


Figure 8. The green figure (A) shows the five forces as experienced by American elderberry producers, while the orange figure (B) shows the same forces as experienced by Chilean raspberry producers.

As a second example Challies and Murray (2011) have investigated the Chilean raspberry value chain, which according to them is the second largest exporter of raspberries globally, despite being a rather small producer with a production that has shifted towards small scale producers in a world where horticultural (specialty) products supply chains have increasingly come under the control of supermarkets in an attempt to improve quality and access. The Chilean raspberry value chain is strongly buyer driven with European and American retailers setting the demands. Vertical integration in the value chain exists, and has primarily consisted of growers coming together to create companies to work downstream of them in the value chain. Market access is highly dependent on the scale of operation. Smaller producers otherwise generally sell their produce to an intermediary, while medium and large scale producers skip that step and sell straight to a central organisation, importer, wholesaler or retailer, mainly after the fruit has been sent to a fruit processing or packing company. The main barrier for growth in the industry is reported to be a lack of integration and coordination in the upper end of the value chain, among the primary producers, which is preventing increased quality and productivity (Challies and Murray, 2011). These factors together lead to a more weak strategic industry position of the raspberry producers (see figure 8).

2.4 Knowledge and Innovation Systems

Within the field of agriculture the concept of Agricultural Knowledge and Innovation Systems (AKIS) has been considered useful to describe the system rather than linear nature of innovation, by emphasizing the organisations involved and their interfaces as well as the institutional infrastructure, especially in regards to financial matter (EU-SCAR, 2012).

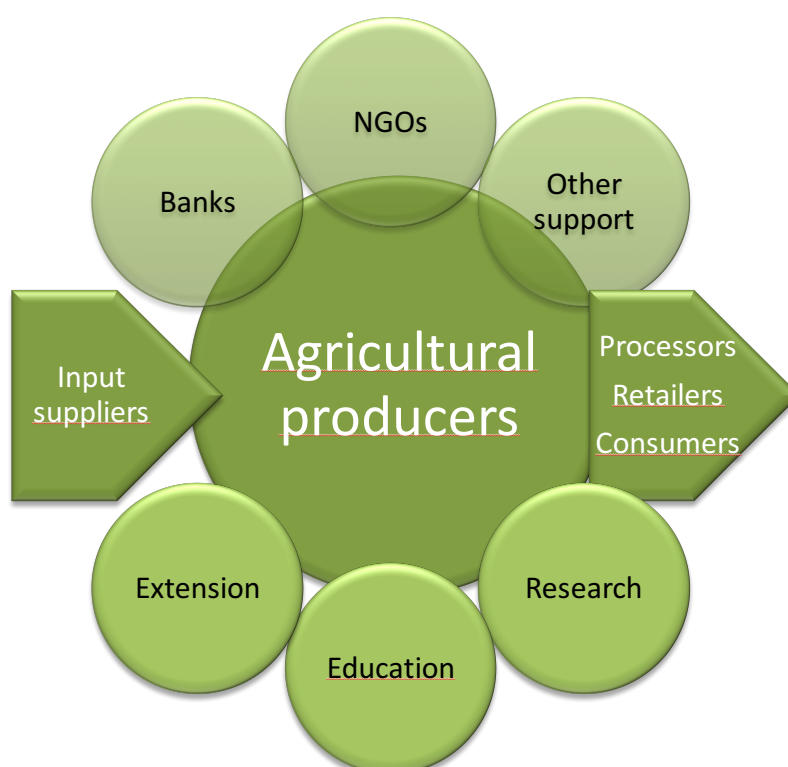


Figure 9. The different actors involved in agricultural knowledge and innovation systems (AKIS), where some are also part of the product distribution chain (as shown with the arrow shapes). There are layers to the extension, education and research portion where the extension is closest to the producers and is a part of both education and research, just as education is also a part of research. The same relationship exists in the processor, retailer and consumer portion where the consumers encompass the entirety as they are the ones who capture the values added throughout the chain. (EU-SCAR, 2012)

Innovation has increasingly become the responsibility of businesses (EU-SCAR, 2012), due primarily to the changes in structure that have occurred within the agricultural sector and market, but also due to the ongoing privatisation of the previously public agricultural knowledge system (Klerkx and Leeuwis, 2008). As the definition of innovation previously presented indicates, innovations do not only benefit the innovators themselves, but also our future society through the creation of positive externalities, which makes it important for the

public sector and government to also share the responsibility of innovation by promoting and enabling it (EU-SCAR, 2012).

As innovation rarely happens in isolation, networks for learning and innovation have proven themselves important for the empowerment of innovation among farmers (EU-SCAR, 2012). This is especially important as knowledge creation occurs in different parts of the system, it is created by farmers, researchers and private institution alike (EU-SCAR, 2012), and as innovation depends on mobilising knowledge the sharing of knowledge between different actors in the system becomes important in order to enable successful innovation (see figure 9). It has been suggested that even the AKIS concept itself is not broad enough, but needs to include rural development as a factor as well (Rivera et al., 2005), as agriculture and rural development are often linked and can be affected by policies in both fields. Rivera et al. (2005) propose a model in which the agricultural producer is at the centre, and with research, extension, education and support systems all interacting with the producer, as well as with one another (see figure 10). In this inclusive approach, focus has been put mainly on the innovation on farm levels, and less on the value chain actors of the agricultural products that were included in the AKIS proposed by EU-SCAR (2012).

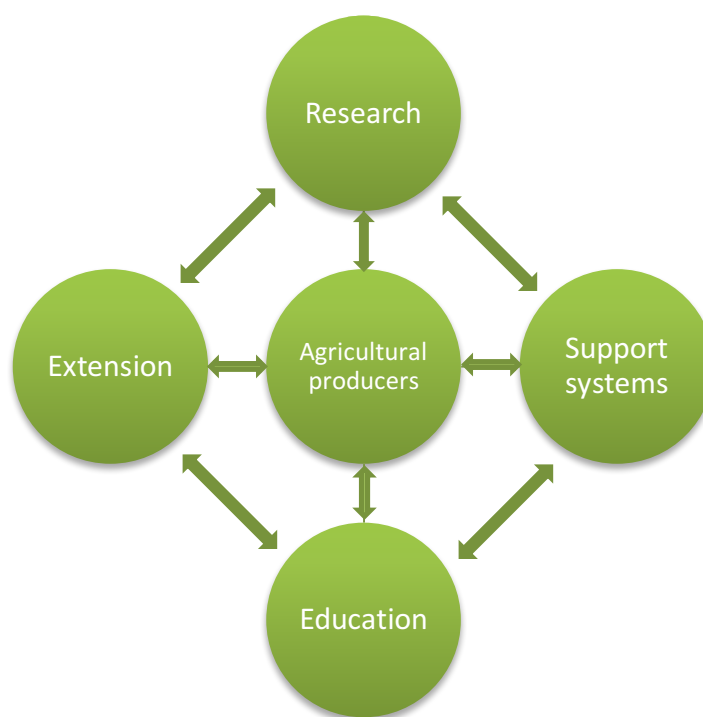


Figure 10. A model to show the relationships in Agricultural Knowledge and Innovation Systems, including rural development. (Rivera et al., 2005)

For agricultural producers in northern Sweden, and many other parts of the country, the actors they meet the most concerning their production are the extension services, which are provided by the local Hushållningssällskapet Norrbotten-Västerbotten. These societies started out as a link between the government and the rural people when they were established in the early 19th century (Berndtsson and Markgren, 2002) with the purpose of improving the economics of the rural populations. This meant that they did not only work with agriculture but also with schools, hospitals and brokering loans. These activities were increasingly incorporated into the public sector over the course of the 19th century, and in the 1960's even the government funding for agricultural extension was removed from the rural economy and agricultural societies (costing them 60-70% of their income) and instead given to county agricultural boards, which have since ceased to exist together with stable government funding for agricultural extension. The EU entry did however bring new resources for rural development projects and education for agricultural producers on ecology and the environment, which many of the rural economy and agricultural societies have picked up and incorporated into their work. Even despite the loss of income for extension the societies continued their work, as they were always driven with a strong local focus and with members of the local population in the organisation. The changes in policy made them become an intermediary in a double sense, not only were they a link between the public and private sector for knowledge but they themselves were funded through both private and public resources. Their history and strong local anchoring makes them a very interesting and important part of the agricultural knowledge and innovation system in Sweden.

3. Methodology and method

This project is based primarily on the outcomes of interviews with berry producers, conducted on-site in northern Sweden. Interviews, as a qualitative approach, were chosen as the mean of data collection because of the limited number of blackcurrant producers in the study area, as well as the aims of the study.

3.1 Qualitative research methods

Qualitative research methods are meant for “exploring and understanding the meaning individuals or groups ascribe to a social or human problem” (Creswell, 2009, p. 4). In regards to data collection it is most often done in a setting the participant chooses or is comfortable with, and the following analysis is done by finding general themes in the specifics mentioned by interviewees, thereby relying heavily on the interpretation made by the person conducting the study (Creswell, 2009). While quantitative methods are in no way the opposite of this, they tend to draw more towards testing out (objective) hypotheses by using measurable variables. For the underlying philosophies for qualitative and quantitative research designs the qualitative methods can be said to build on an inductive style, while quantitative methods rely on a more deductive style.

Within the realm of qualitative research methods there are several different types of methodologies that can be applied to the project at hand; narrative research, phenomenology, ethnographies, grounded theory studies and case studies (Creswell, 2013). These all have slightly different characteristics and can be more or less relevant, depending on the research topic. In general, the narrative approach can be said to focus on individual experiences, while the phenomenological approach focuses on describing and understanding a shared experienced phenomenon. The grounded theory approach deals more with developing theories with its base in the views of the participants, and the ethnographical approach aims to describe and interpret cultural patterns shared by a group, while the case study approach works to develop and provide understanding of one or more cases based on in-depth descriptions and analysis (Creswell, 2013). For this project the case study methodology has been chosen, as the research topic is the case of blackcurrant production in northern Sweden.

3.2 Selection of participants

Due to the limited number of blackcurrant and arctic raspberry producers in northern Sweden, a majority of the producers to which Hushållningssällskapet could provide contact details for, which were still active producers, in Norrbotten county were selected and interviewed. A couple of interviews were also conducted with producers in Västerbotten county. As this selection provided few younger producers, additional interviews were arranged with younger strawberry producers in Norrbotten, see table 1 for age intervals of producers. About half of all interviews with producers were with a couple that run or work together with the berry production. Several of the producers worked with more than one type of berry.

Table 1. Age intervals of interviewed berry producers, not differentiated based on location or crop.

| Age interval | Number of interviewed producers* |
|---------------------|---|
| Under 50 years | 3 |
| 50-60 years | 4 |
| Over 60 years | 4 |

* Interviews conducted with couples are still counted as one entity and not as two producers.

3.3 Interviews

The main method of data collection within the qualitative research methods is interviews. There are different types of interviews that can be conducted, generally ranging from strict to open in regards to question formulation, order of questions and response options. As there is little written about blackcurrant producers in northern Sweden the interviews for this case study were of an explorative style focusing on the individual experiences of producers in regards to starting a berry production, selling the berries, producer networks, advisory support and information, and perception of opportunities for processing of the berries. The interview was semi-structured to allow the interviewer to structure the interview into question themes while still allowing the interviewees to control the order of the themes, and to be able to respond to the questions in their own words.

An interview guide was created in preparation of the interviews (see appendix 1) to clarify the themes to be covered during the interviews, but this guide was not handed out to the interviewees in order to not steer the interview. The guide includes several questions for each theme and was used as a support for the interviewer to cover all relevant themes, while being able to shift the order of which the themes were addressed based on the flow of the interview. Eleven interviews were conducted with producers, and two with former production advisors

as these were deemed important to gain a better overview of the historical context from a structural point of view. No interview guide was used for the interviews with the advisors, but individual questions based on their specific fields of knowledge were prepared beforehand and the interviews were very open and flexible to reach the aim of gaining better insights into the history of the advisory role and function.

All interviews were conducted in the home or other location chosen by the interviewee. All interviews were conducted between October 17-31, 2016 and lasted between 56 minutes and 150 minutes. The large time span mainly depended on how long the producer had been an active berry producer, as well as on their interest in the interviews. As the interviews were conducted in the home environment of the interviewees the atmosphere was quite informal, and at times included both coffee and lunch which increased the interview time. All interviews were recorded, and later on transcribed. After each interview a short recording or written note was made by the interviewer to point out relevant points made during the interview. The interviews were conducted in Swedish, as that is the mother tongue or chosen language by both interviewees and interviewer.

3.4 Analysis

The analysis chosen for this study is a type of thematic analysis, which is a very common analysis format within qualitative research with the aim to detect patterns (themes) in the data (Creswell, 2009). The method aims to detect underlying patterns in the data by identifying variables that together will explain most of the content and variation of the data collected (Christensen et al., 2016). These variables consist of themes that will describe and explain the data. This analysis method can be said to consist of three processes (Christensen et al., 2016) – the reduction process, the structuring process and the visualization process – which together make up the last four of the six steps suggested by Creswell in his description of the analysis method (Creswell, 2009):

1. Transcribing interviews and typing up field notes to organize the material;
2. Reading through the data, and potentially taking notes or recording thoughts concerning the data;
3. Initiating a coding process, which means that the material is reorganized into segments;

4. Generating descriptions of interview subjects as well as analysis themes. These themes will then provide the main findings of a qualitative study and should not be too many, but include different perspectives given by interviewees as well as be supported by quotations and other evidence;
5. Finding a way to represent the themes and descriptions in the qualitative report;
6. Making an interpretation of the data, to point out what can be learned from the case study.

3.5 Validity

The meanings of validity, reliability and generalizability differ between quantitative and qualitative approaches, which makes it important to here note what connotations they carry in regards to this (qualitative) project, based on the definitions offered by Creswell (2009, based on Gibbs, 2007):

Validity means that the researcher checks for the accuracy of the findings by employing certain procedures. (p. 190)

Reliability indicates that the researcher's approach is consistent across different researchers and different projects. (p. 190)

Generalization is a term that is used in a limited way in qualitative research, since the intent of this form of inquiry is not to generalize findings to individuals, sites, or places outside of those under study. (p. 192-193)

Both validity and reliability in a qualitative approach are therefore dependent on procedures created and carried out by the project group in charge of data collection and analysis. For reliability, these procedures can include checking transcripts for mistakes or inconsistent code definitions, and prioritizing communication as well as shared views and protocols among researchers and analysts. For validity, which is a strong point of qualitative research, the matter is to determine if findings are accurate from the standpoint of target perspectives (Creswell, 2009). This leads to relevant procedures to include the establishing themes by converging several data sources, member checking by presenting findings to participants to ask about accuracy, clarifying the researchers' own biases and presenting not only information in line with the themes but also discrepant information.

For this study reliability was assured by using only one interviewer with the same interview guidelines used for all interviews. The interviews were also conducted within as short a time period as possible (two weeks) to have the interviewer keep much the same mindset and knowledge level throughout all interviews. It is however near to impossible for another researcher to use the same guidelines on the same interview subjects and receive the same answers, as the

All interviews were completed before coding and analysis were initiated, and while this could be beneficial to decrease the risk of biases being introduced during data collection and compilation, it goes against the general way of data collection for qualitative studies, as the analysis is recommended to be conducted simultaneously with the later interviews, in order to improve the chances of reaching theoretical saturation (Christensen et al., 2016), which is when further interviews no longer contribute to new themes but only collaborates previous findings. This process was not possible for this study for practical reasons, due to long distances between interview subjects and the need to conduct the interviews when the interviewer was in the area.

For the coding, it would have been beneficial for the coder to be someone other than the interviewer, to avoid biases and minimize potential over- or under analysis of the data.

3.6 Ethics

As with all research, ethics are important when using qualitative research approaches. Using qualitative methodologies there are several ethical issues that can arise, especially during data collection and analysis (Creswell, 2009). These ethical issues particularly include consent procedures, deceptive activities such as lying about the purpose of a study, power balance between individual interviewees as well as between interviewee and interviewer, confidentiality of participants in the report, requests going beyond social norms and the role of the interviewer relative to the participants (Creswell, 2013).

For this study, interviewees were informed of the purpose and aims of the study over phone, as well as per email for those this was relevant, and reminded and offered a chance to ask questions at the start of each interview. It was pointed out that this was an explorative study and that it had no aim to criticize or comment on actions of individual producers, but to explore experiences and which barriers they perceived towards processing their berries.

Interviewees were also told they would be sent all quotes from their interviews which may be used in the report, and that they would not be named in the report but handled as anonymously as possible, given the low number of blackcurrant producers in the study area.

To decrease the risk of a hierarchical relationship between interviewer and interviewees all interviews were conducted at a location chosen by the interviewees, most often in their homes, and it was made clear at the start of the interview that all questions were optional, and it was their choice whether to respond or not.

4. Results

4.1 The berry value chains

The value chains differ for the different berries produced, according to the interviews. Producers with larger harvests generally sell more to companies than smaller producers that are more directed towards consumers. The value chains according to producers are generally short, though many also report having little knowledge of what becomes of the berries after they have been delivered to processors or wholesalers, making it hard to determine what values are actually added throughout the chain. Despite this, the interviews make the distribution chain quite clear, as it is a rather short chain with few actors involved as can be seen in figure 11.

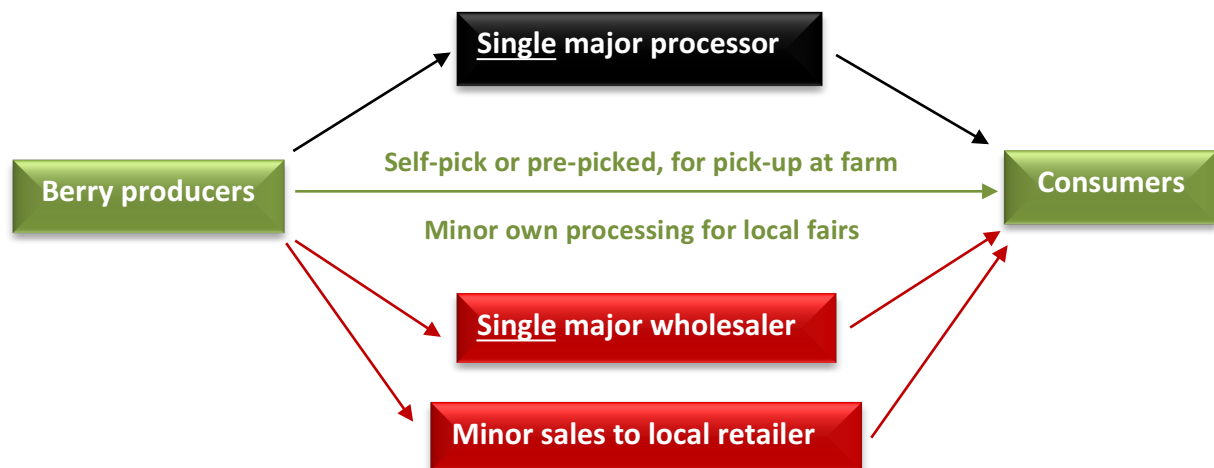


Figure 11. The distribution chain for berries in northern Sweden, blue representing all studied berries while black represents only blackcurrants and red only strawberries.

4.1.1 Blackcurrants

Many of the blackcurrant producers have been active in cultivation since the 1970's, and have over the years sold their berries to several different companies. Most report Norrfrys being the first buyer, who bought all blackcurrants in the area (apart from minor quantities sold directly to consumers) and froze them. After a cider factory (musteri) was established in Hedenäset, just outside Haparanda, all the blackcurrants were sold to it and prizes were negotiated between the processor and a representative of NBG, a farmer cooperative in which practically all blackcurrant producers in Norrbotten were a part. This continued until the cider factory abruptly stopped buying the local blackcurrants around 2012-2013, something which

was announced only a few weeks before the harvest that year. After this the buyers became more diverse in the beginning, with some producers selling to a juice processor in the middle of Sweden, and others to a jam processor, a vineyard or increasing sales to consumers. Discussions have also been held with an aroma tech company interested in the blackcurrant buds, but little has come of it yet. The only buyer is now the juice processor, who buys the berries from a couple of producers, while the rest are saying that their harvests have been so low in later years that they have not been selling more than to consumers. One producer recalls the years with Norrfrys and the early days with Hedenäset as the years with the best prices for the berries: 1. *"I think one year we got even 15 or 16 SEK/kg. And that had everyone going /.../ brought down the prices so one year we got 0,80 SEK/kg and then they paid 24 SEK/kg for lingonberries. So then you understand that it was wrong somewhere. And it has continued being that wrong because it is global blackcurrants, it is not taken into consideration if they are produced here even though they have a higher inner quality, very different from those that come from the South"*. As previously mentioned many producers do not recall prices as they have been over the years, but when asking about the current price for berries as paid by the juice processor one producers mentions 2. *"We got 10 SEK/kg earlier, now we get 12 SEK/kg"* suggesting relatively stable price levels.

In regards to the plants some producers self-propagate while others buy their plants, and a few report issues with finding healthy plant material as the blackcurrants suffer from quite a few pests. All blackcurrant producers that were interviewed are now KRAV-certified and therefore have to rely on organic fertilizers and the main pesticide they use for blackcurrants, Raptol. In regards to costs of inputs no producer had any clear numbers to give, but suggest that if one already owns the right equipment and propagates their own plants production is not very expensive. Some key points about the different actors mentioned in figure 11 can be found below in figure 12.

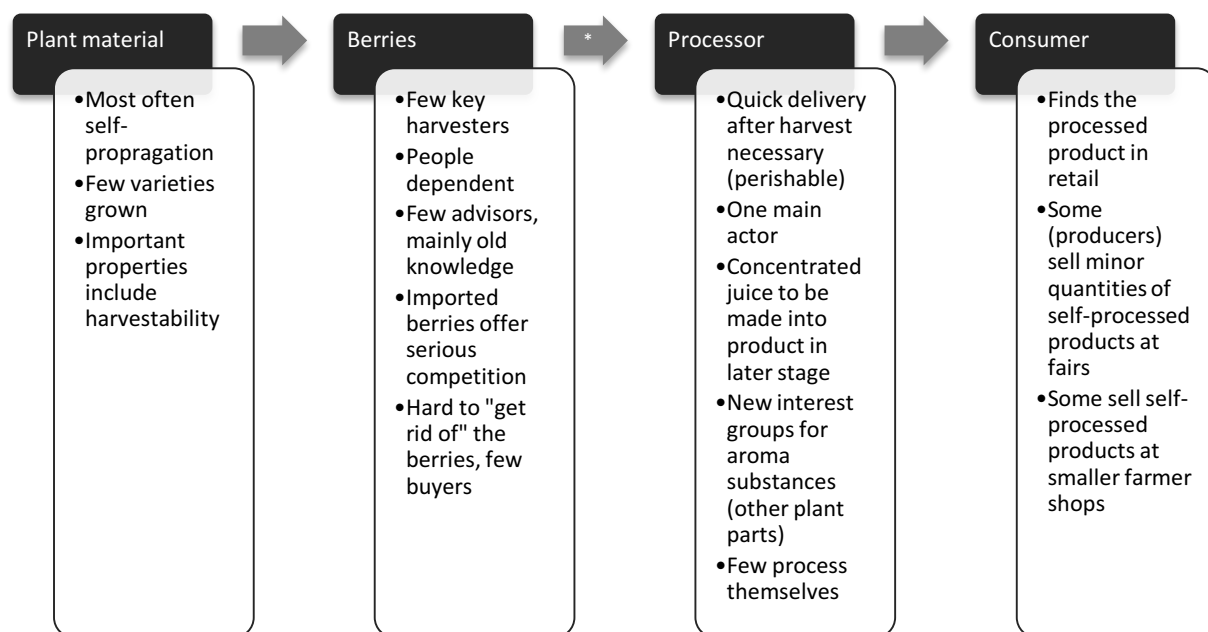


Figure 12. The key themes concerning the blackcurrant value chain as concluded by the interviews. * Some of the produce is also sold directly to consumers as fresh berries

4.1.2 Strawberries

The strawberry cultivation has grown over time in northern Sweden, and the producers all agree that the demand is currently larger than the supply when it comes to locally grown strawberries. Few producers grow their strawberries without pesticides or herbicides, and none are KRAV-certified. Most producers started out selling their berries to a wholesaler, Finnerödja, but have since ended that relationship because of difficulties surrounding transparency and fairness and are instead selling directly to consumers through self-picking in their fields. Finding cultivars that will work well in their northern conditions have been a problem at times, and several producers report that different cultivars work differently well for different producers. All producers that sell directly to consumers report that returning customers and mouth-to-mouth provide their main clientele. Some use digital resources to announce opening hours, and some have previously and still occasionally posted ads in local newspapers. Some key points about the different actors mentioned in figure 11 can be found below in figure 13.

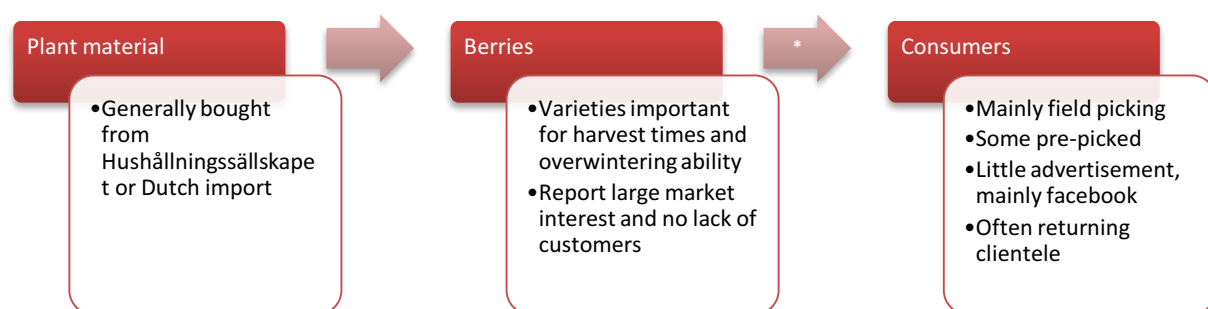


Figure 13. The key themes concerning the strawberry value chain as concluded by the interviews. * Some producers sell to Finnerödja, or smaller quantities straight to local supermarkets.

4.1.3 Arctic raspberries

So far there has not been sufficient production volume for producers to be able to sell their produce of arctic raspberries at any significant scale, though they are reporting large interest from higher end markets such as marmalade processors, chocolatiers and restaurants. The production itself is reported to be the major focus, as healthy plant material is sometimes hard to come by and mildew can be a problem. As the harvest is also not mechanized, and the berries mature continually on the plant, it can be very time consuming. One former producer who also processed berries on a smaller scale mentioned the hardships of charging enough for the product to pay for the work put into it: 3. *"But it is terribly much work and really one should take 1000 SEK per jar [of jam], given all the work. It is incredibly hard to charge for it. In part it is lying and weeding by hand which is a hassle with these large fields, and then picking them is quite time consuming. But you cannot count the hours on this."*

4.2 Barriers faced by producers

The challenges producers face come in different forms, and are generally deeply situated in their individual contexts, but the interviews have provided several themes that are reflected in more or less all of the types of berry production included in this study and these themes can be found in figure 14.



Figure 14. The key themes concerning the barriers to improving the strategic position of the producers in the berry industry as concluded by the interviews.

4.2.1 Motivation

Motivation is a clear theme in the interviews, with the perceived identity of a producer together with the reason for starting the berry production making up the main internal limits of what a producer is willing to do. Most producers use the word “grower” when describing themselves. For producers who started their production based mainly on interest of cultivation, searching for new knowledge and ideas and implementing is more common than among the group of producers who started their production based on financial interests or a direct need. The latter often reported having started with their crop based on external advice, especially concerning blackcurrants as these were promoted by political interests and local agencies “held Hallelujah meetings” to encourage production.

4. *“So then we got into that thing with blackcurrants, that had been propagated quite a bit for”*
5. *“Blackcurrants were what was in the pipeline”*
6. *“There were calculations that [showed] you could have good profitability. They thought the berries would keep relatively healthy up here and diseases had not gotten here*

much, yet. It was pretty well paid then for the berries. There were many blackcurrant growers in that time. Now there are almost none left. It was also quite easy with sales and transports because there were many that also were growers and had haulages that picked up the berries and transported (them)."

7. *"You were supposed to get rich from it. /.../ The prognoses that they had then supported blackcurrant cultivation a lot then in the mid 1970's, you received support from all sorts. It was the county administrative board [Länsstyrelsen], I do not know where the money came from but it was our, this county governor [Landshövding] that pushed for it."*
8. *"I wanted to do something creative that tires me physically. I have always enjoyed cultivating, so well then let us try that."*
9. *"I wanted to cultivate, I wanted to do berry growing. That is how it is."*

Many interviewees report their reason for starting a blackcurrant production to be that they wanted their land to be used, and not to let it sit idle, and blackcurrants provided a good opportunity due to its low labour requirements and the possibility to combine it with regular jobs. Despite this most producers are mentioning a lack of time and energy concerning their production, as well as in regards to achieving a good work-life balance.

10. *"We had tried to grow barley here and just felt that we cannot let it grow, become overgrown with bushes, it felt wrong when there has been so much work put into improving the soil here."*
11. *"Well we have to do something with the land, and then there was no demand, absolutely none for blackcurrants when we started and I know a blackcurrant grower, he said what damn idiot are you that start with blackcurrants when everyone else is quitting."*
12. *"When there is land you have to do something"*
13. *"We have this particular piece of land, and the most suitable crop is then strawberries."*
14. *"This is so simple, cutting grass and that I did, while I worked I did it on evenings and sometimes weekends. No but this thing with blackcurrants, it is not that much work with it. And it is just tractor work, and planting of course. So I do have a lot of hours on the tractor. But it was not fun to plant those cuttings, but it was not too bad, two days. Put those sticks down. Nowadays we have transitioned to plant the all ready-plants."*

4.2.2 Support

Several producers are quite negative towards the large-scale processing industry as well as the decreased governmental interest in horticultural production, as they recall losing support functions for producers, that previously were offered by the Swedish University of Agricultural Sciences (SLU) research stations in Öjebyn and Rönneby, and by Länsstyrelsen. This sense of loss especially concerns knowledge creation and knowledge sharing, but also includes a general lack of trust that was previously not there.

15. *"There is no big profit for us, you do not get rich. If we break even this year we have to be satisfied. But this blackcurrant subsidy, it is so very good that without I do not think this would work."*
16. *"Yes but they have had that all the time [business support at Öjebyn], but this thing with cultivation they have closed down more and more."*
17. *"But we had, it was such that the middle man took more than we ourselves got. So then, because then we also had self-pick, now we have mainly self-pick. Then it runs itself. You just have to keep checking, but also do orders for those that cannot pick."*
18. *"Now we only have Hildur [a blackcurrant cultivar], everyone only has Hildur, it has been only Hildur for years. We have no cultivars, but there is nowhere to take new cultivars from. That is what you feel is the problem, we have no new production or development. Nothing happens. They have like closed down Öjebyn. There is no money for it."*
19. *"But it was also so that when I started calling around in Finland and Sweden, in Finland probably to over 20 places and in Sweden too, and it was quite terrifying to find out that no, we concentrate our berries to central Europe. They imported all berries almost. It was quite terrifying really, both Finland and Sweden."*

4.2.3 Cultivation

The conditions are, as always for producers, a common source of concern with pests, pathogens and weeds consuming much time and effort. Producers also experience different issues, that appear to relate to their individual soil and climate conditions. Finding sellers who can provide healthy plant material, free from pests and pathogens, which can withstand the

northern climate is also reported to be a problem, and except for strawberries there are no new varieties being brought onto the market.

20. *"You are supposed to change plant material quite often to manage. There were these vinbärsmal [a moth, Incurvaria capitella] and vinbärknoppmal [a moth, Kessleria rufpella] for a while, and they were quite destructive."*
21. *"That we have worked a lot with, the weeds. By hand. They like it the best."*
22. *"There were nettles there, it was so terrible, it was awful. We will have to see how this works."*
23. *"That is just it, if you have cultivation you have to keep up. If you are behind in Spring then you are behind all season, it is the same, everything has to be done a certain time, the right time."*
24. *"Really one should have had new land and tried to move it so that this can be out of crop so you could have crop rotation, but it has not been possible."*
25. *"But it has been bad so you do not know if the plants were healthy then either. That is what is so hard, it is hard to get cuttings somewhere when you do not know that they are [healthy]. This with knopp- och skottmal [moths, Kessleria rufpella and Incurvaria capitella], they all have it."*
26. *"But there are differences, one cultivar works well here, one in [village A] and one in [village B]."*

4.2.4 Market

The perishable nature of the berries make the long distances in northern Sweden hard to deal with when looking for new markets. At the same time many of the producers with pick-your-own berries mention having customers that travel far to come to them, because there are so few places where they can pick berries. For producers not offering pick-your-own berries, they often sell their produce to one single processor or wholesaler, and have no other optional buyers to their knowledge.

Before the Jokk concept was sold by Norrmejerier to Procordia five years ago (Orkla, 2012) most blackcurrant producers delivered their produce to them, and were only told shortly before the harvest that they would no longer buy their berries. Many consider cheap imported blackcurrants to have been the reason for this, and are claiming that the whole berry industry

tends to cheat when it comes to the origin of berries. They also state that berries cultivated in northern Sweden are of higher quality than imported berries, and berries from southern Sweden.

27. *"But it was like Jokk, everyone thought it was berries from Norrbotten but it only says berries from the wild. It is so deceiving."*
28. *"And it has continued to be that skewed because it is global, blackcurrants, there is no regard taken for whether they are grown here even though they have a higher inner quality, quite different from that that comes from the South"*
29. *"Of course we would like to be closer to someone buying, it is just hard. We have no, and have never had any thoughts on any processing ourselves, and what we sell now we have no marketing for, and have not have for several years as we have customers that know we sell and that you can order and pick it up when it has been harvested. About that size is what we find comfortable, it would probably be possible to market and sell much more. But then there is calling and fixing, we never know that far ahead when the harvest will be."*
30. *"But then one is a bit cowardly at demanding [a higher price], thinking that it is better that we get rid of it than... It is probably before one has become a name."*
31. *"One cannot fixate all too much on the price and in a business like this that does not work, you have to take what you get today"*
32. *"There is probably much to the latitude thinking. Another thing I often say, just here in the region, is when you see and feel strawberries from here and when we were at Österlen and really Polka [a strawberry cultivar] there tastes nothing in comparison to here."*

4.2.5 Networks

The importance of relationships is clear especially among the older producers, and the interviews often included remarks about what other producers were doing, or how, such as:

33. *"A very fine person, I hope his work pays off because he has put so much effort in".* These relationships are built on trust to a very high degree, and go beyond relationships between people to also encompass the relationships of an individual producer to institutions or

companies. There are therefore several statements reflecting how they are disappointed or impressed by other producers, governments and so on.

34. *"It is through NBG you meet."*

35. *"It is probably, well you know we quit once, twice we have quit with strawberries, but so many people have called saying that you cannot stop, that is why we started again."*

36. *"We are in touch with everyone"*

37. *"Get in contact with people, there are a lot of forums on the internet, people who are a bit interested, you can just try, that is what is important, to try. We graft a bit ourselves, ask people to send scions so we can test."*

38. *"Then we have been to these meetings, of NBG, that is great. One should take more notes, you forget."*

39. *"I have been to these meetings, and it is really hard, you really know nothing, so you have to ask. They are good, they are helpful [NBG]. You can hear that there is a lot of experience, you cannot read to that much with this strawberry plantation, well yes you can about how much to dilute and fertilize and that. But yes, I think that you have to make quite a bit of mistakes to see how it turns out just at our place."*

In regards to the relationships there is a clear difference between the older and younger producers, where the younger producers have to a larger extent looked for their networks online, and found them in less formal arrangements than in traditional producer organisations. They also tend to focus more on their relationships with their customers, whose feedback they actively look for in regards to their produce and/or plant material, than on relationships with similar local producers. The older producers display the opposite and are more focused on the relationships between producers, rather than with customers. The producer organisation Norrbottens Bär och Grönsaker (Berries and Vegetables of North Botnia) was also more active while Jock was still produced with blackcurrants from northern Sweden, after which its activities have decreased. Some producers wish it was more active as the exchange of information and experiences, as well as the social aspects, are of value to the producers.

Hardly any producers express an interest in starting their own processing operation, apart from occasional small-scale production for Christmas fairs and similar events, despite wanting

there to be local processors. The reasons are generally not given straight out, but are discussed later on in this paper.

4.3 Visions for the berry value chain

In order to find the visions for the value chains it was important to investigate what the producers had valued in previous constellations of the value chain, as well as what ideas they themselves had for products and processing opportunities.

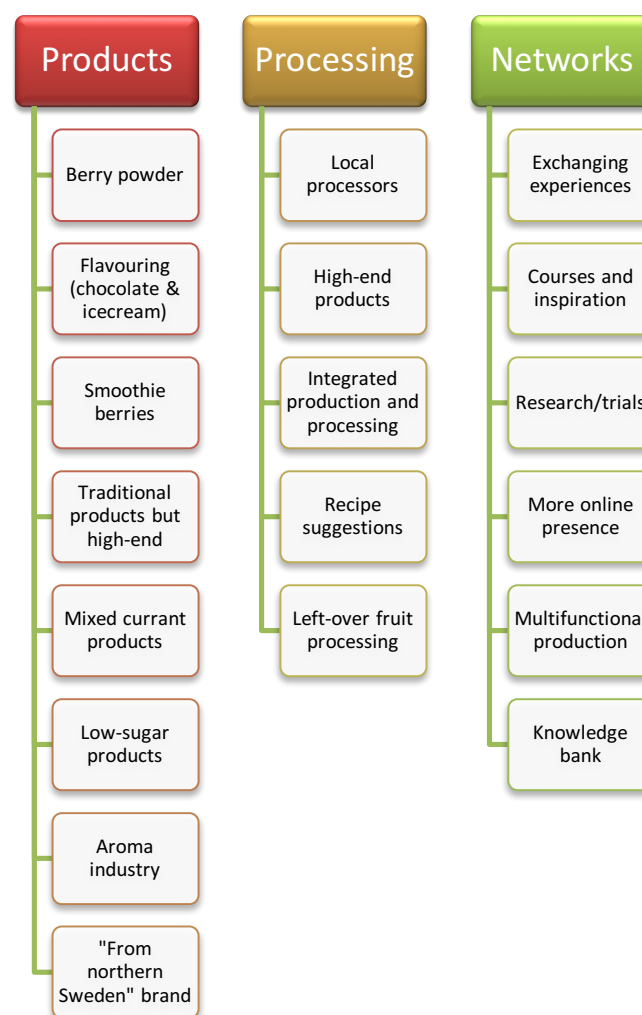


Figure 15. The key themes concerning the producers' visions for the berry industry as concluded by the interviews.

When asked for ideas or wishes the producers came up with quite a few products that could be interesting, as can be seen above in figure 15. Many refer to a need to increase the perceived value of cultivated northern berries, which apart from arctic raspberries are considered more as common garden berries than high-value produce. The notion among producers that consumers need to value products from northern Sweden higher than they do

today is usually accompanied by the idea of creating some type of certification or brand. One producer went even further and suggested it should incorporate more than just berries and rather focus on all types of food and go beyond the country borders to strengthen the standing of northern producers and processors on a global scale: 40. *“Scandinavia needs a sensory profile”*.

Almost all producers wish for there to be local processors to which they could bring their produce, or in some cases the fruit which is left-over. Based on the experience with Jokk some state a need for production and processing to be integrated into one company, to prevent processors from choosing imported berries over local ones.

The vision regarding networks include reintroducing the inspirational and knowledge creating role once held by Hushållningssällskapet and Länsstyrelsen, though the actors can be different. Especially young producers express a wish for a common platform to exchange experiences and ideas, but are also displaying a larger tendency to look for their own groups and information online and to have their production as only one part of their business, where nurseries or garden centres are a common second part. Many producers are interpreting the alterations at Öjebyn as a sign that cultivation is no longer of interest to authorities, and that no new knowledge is being created such as it used to be, including new varieties and advisory functions. There is also a sense of loss of knowledge, and that knowledge is tied to specific individuals, and that there is a need to gather the knowledge gained by advisors, producers and other actors.

While many producers linger in the past and talk about what has been, and how the conditions surrounding their production has changed since then, some are also touching on what could be done now and how for example processing could look more into mixing different kinds of currants (red, white, black and more recently introduced kinds) or new cultivars as well as entirely new berries could be found abroad. Saskatoon is one interesting berry that was mentioned, coming from North America. As one producer put it concerning their own role and responsibility: 41. *“We need to understand ourselves and our opportunities”* and 42. *“We cannot close our eyes until it is time to sell it, there is need for a dialogue”*.

5. Discussion

5.1 Position of producers following the Five Forces model

Based on what producers have mentioned during the interviews, and the value chains produced based on this in the result section the position of the producers according to the five forces model can be described as in figures 16-18.

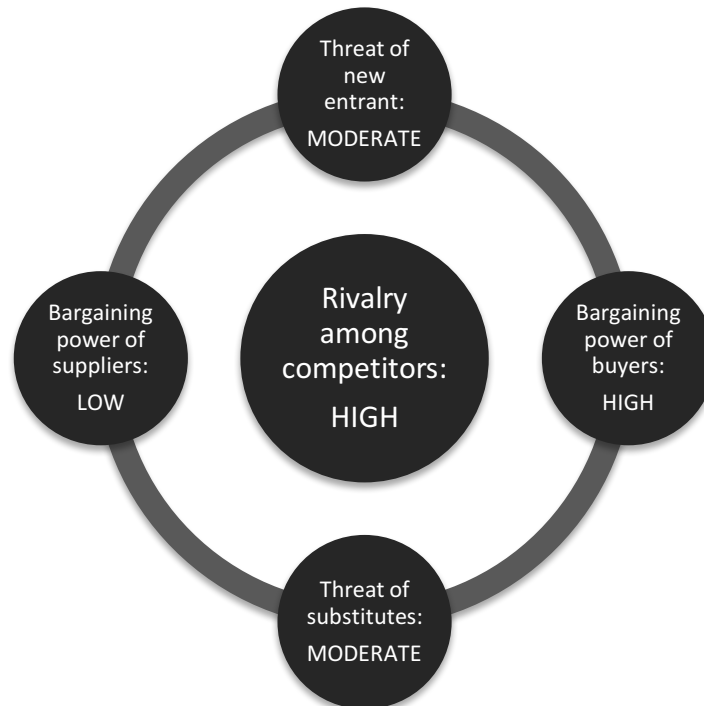


Figure 16. Figure showing the strength of the five forces affecting blackcurrant producers.

For the blackcurrants the competitors with whom the northern producers experience true rivalry is primarily foreign producers, especially in central Europe, which are benefitting from lower costs as well as higher yields. As the Swedish blackcurrants have not managed to distinguish themselves in the eyes of buyers they are on the losing side of this rivalry. This is also the reason to the high bargaining power held by the buyers, which can easily replace the Swedish blackcurrants with blackcurrants produced in other countries if they choose to do so. As the market is currently not too good for blackcurrant producers the threat of new entrants is less of a threat when only considering Sweden, but globally it can be a matter and given that blackcurrants can be grown in many locations around the world there is a risk for increased competition from new entrants, especially since a producer does not need to start on a large scale or make large initial investments in most cases. Blackcurrants in Sweden hold no specific position in the eye of consumers, unlike strawberries for example, making it more susceptible

to substitution from other berries. As many blackcurrant producers make their own cuttings the only crucial supplier for them are those selling fertilizers and the pesticide Raptol. As figure 16 shows the overall strategic position of blackcurrant producers in the berry industry is quite weak, with strong competition from foreign producers as well as a strong buyer side. Almost all producers are now growing blackcurrants according to organic standards (KRAV-certified) and this could come to increase supplier power, as producers are more bound to specific products.

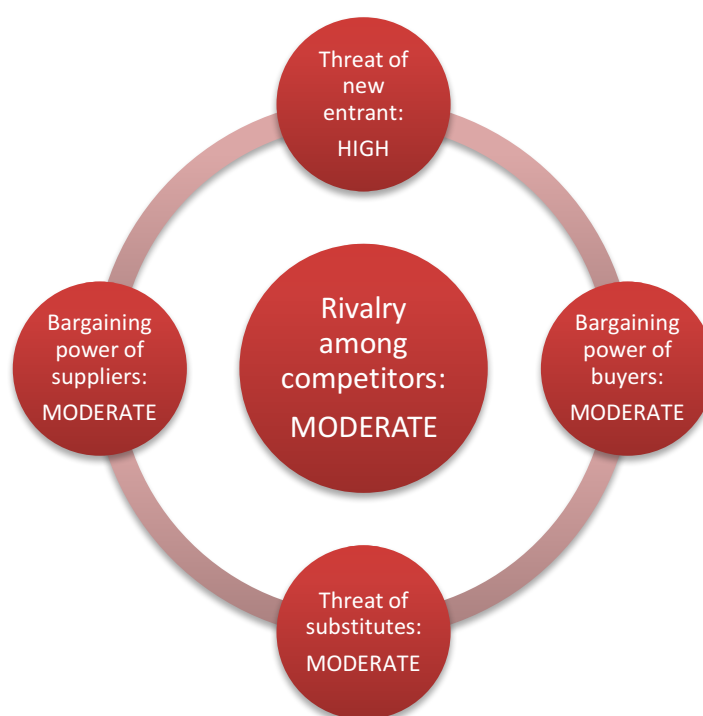


Figure 17. Figure showing the strength of the five forces affecting strawberry producers.

The strawberry production is seen as having a bright future with demand being higher than supply in northern Sweden according to the producers. This makes the current rivalry quite moderate as producers employing self-pick all have “their” regions, and consumers put a higher value on Swedish and local berries as compared to imported, which also makes buyer power and the threat of substitution moderate. Producers require no specific inputs apart from plant material, making supplier power moderate. As the market and as it appears still expanding when it comes to pick-your-own berries, and the costs of entering the market is rather low the threat of new entrants is high. This all makes the strategic position of strawberry producers relatively stable (see figure 17), though it can be improved further.

The arctic raspberry production is still so small that the berry is considered a luxury product, resulting in low bargaining power of buyers as well as low rivalry among producers as demand is larger than supply at this stage. The threat of new entrants is also moderate, as quite a bit of knowledge and cultivation method still needs to be developed in order to create efficient production. The berries can also not be grown further south due to climate conditions, making it necessary for new entrants to establish themselves in a more narrow geographical sphere. The threat of substitutes is also moderate as the berry is currently considered a luxury product, especially due to the low supply. This could however change if production increases, and if the berry is not positioned well to separate its values from other berries. Supplier power is low due to producers generally producing their own plant material and requiring little specific inputs. All in all the strategic position of the arctic raspberry producers is good, as can be seen in figure 18, but due to the clear challenges of the production itself (cultivation, harvest) it is hard to say whether this will become a successful commercial berry.

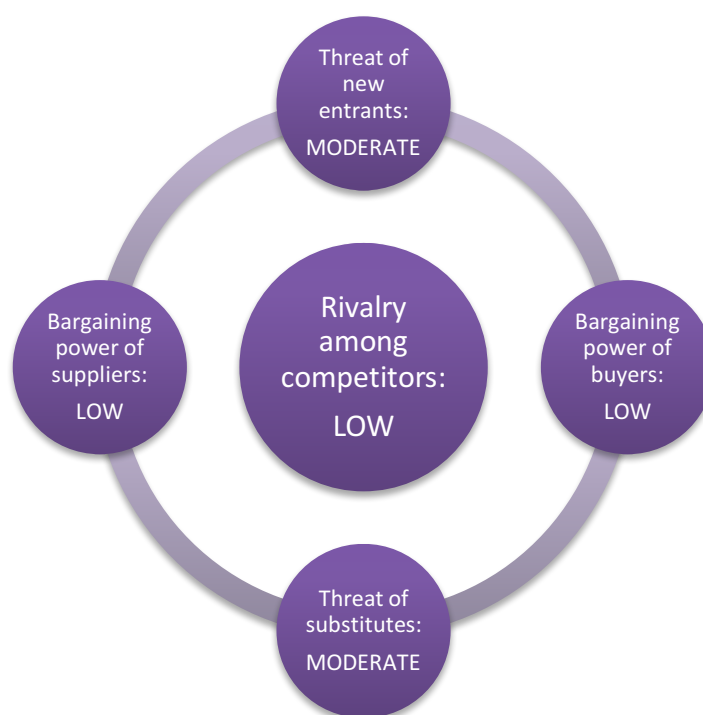


Figure 18. Figure showing the strength of the five forces affecting arctic raspberry producers.

5.2 Comparison of value chains

All berry producers that are selling to wholesalers or processors have only one outlet for their berries, and the sheer use of the terms “getting rid of the berries” which is commonly used

creates the sense that it truly is a buyer's market, and that the producers do not have much bargaining power in comparison. This is also reflected in how blackcurrant producers report having to take the price they are given, rather than being able to negotiate the prices: *"But then one is a bit cowardly at demanding [a higher price], thinking that it is better that we get rid of it than... It is probably before one has become a name.", "I think they have fixated all too much on the price and in a business like this that does not work, you have to take what you get today"*. Taken together it all suggests a rather vulnerable system, with both power imbalances and a high dependency on only a few actors. The producers are also facing fierce competition from imported berries, with which they are unable to compete based on quality as neither processors nor consumers appear to understand Swedish blackcurrants to be of better quality than imported berries. This is something which could be helped by research to look at chemical profiles and sensory tests. If berries from northern Sweden do provide a higher quality that should also be reflected in their value and improve the bargaining power of producers. This research is also lacking in regards to strawberries, which are mainly competing with strawberries from producers in southern Sweden, due to the larger consumer preference for Swedish strawberries. Some producers are generally focused on the latitude theory, that berries cultivated in the North contain more antioxidants as well as higher sugar levels (perceived as more flavour) than those cultivated in the South: *"there is probably much to the latitude thinking. Another thing I often say, just here in the region, is when you see and feel strawberries from here and when we were at Österlen and really Polka [a strawberry cultivar] there tastes nothing in comparison to here."*

5.3 Knowledge and innovation systems

The among producers perceived decline in both research and extension focused on berries in northern Sweden becomes clear in the interviews. In the case of blackcurrants there is also a sense of loss of interest from the government as especially the county administration was previously quite involved in supporting the blackcurrant production. The strawberry production on the other hand always appears to have developed more slowly, driven more by the market than by politics, and has not experienced as large a change in their support structure and overall knowledge and innovation system as the blackcurrant producers have. For the arctic raspberries there is reason to suspect that lack of local knowledge creation and sharing could have kept production down, as there is little knowledge accessible to producers

and especially little knowledge being produced that can help with the challenging cultivation and harvest.

5.4 Suggestions for improvement

At the heart of the question why producers are not becoming processors appears to be the matter of identity. As most producers choose to define themselves as “growers”, and always talked about processors as “them”, it seems reasonable to assume that there is indeed a divide between the two groups, and that it is a matter of how they identify themselves, and their reasons for producing berries. Given how NBG is a producers-only network, and how the producers have generally not been in any networks with processors this comes across as quite natural, and a logical leap would therefore be to try to create platforms for producers and processors to meet. While there are discussions about the processing industry, this would require large quantities of produce, something which few of the current producers are able to guarantee or even hope for given the declining harvests of many fields. Another interesting potential market, which the producers appear less vary off than the industry, is high-end processed products, which could include e.g. artisan food. For this there are already networks, Eldrimner in Jämtland in particular, and I see an under-explored potential in linking producers and processors to create high-value products that can help to promote northern flavours. This would also allow producers to focus their time and efforts on their cultivation, and for processors to be able to focus on their craft, while hopefully developing partnerships that can help both sides by better managing their resources in regards to both time, money and knowledge.

The changes that are happening both in Öjebyn and in society at large are pointing towards a potential for new platforms for collaborations, and particularly for exchanges of information and knowledge. While many of the older producers have a strong network of local producers, younger ones do not and are instead looking for networks and knowledge in other places, something which could be used by creating accessible online resources, where communication between producers and advisors or can be promoted. Despite most interviewees being online to check one thing or the other during my visit, there appears to be no common platform for them, neither for them to receive information or to communicate. This is something I believe will only become bigger, and the younger producers are already

trying to gather information about cultivation, and inspiration, from anywhere possible so the need is there. There is a need for continuous development of new varieties and cultivation methods and many of the lessons learned in southern Sweden, or even in one part of northern Sweden, do not apply to conditions faced elsewhere, as concluded by the producers: *“But there are differences, one cultivar works well here, one in [village A] and one in [village B]”*. This begs the question of who should be responsible for this. The market here is quite small, and varieties developed for northern conditions are probably of limited interest in other parts of the country, but may well be of interest in other northern countries. Many of the producers are looking to Finland for new knowledge and cultivars, and there should be reasons to consider a collaboration across the borders, to try varieties out in different countries to increase the potential market for the plant material as well, and to use resources more efficiently.

There regional food strategy for Norrbotten suggests that the county is already aware of many of the interventions suggested here when it comes both to connecting producers with processors and tourism agencies and events, and to the need of securing the further development of competence in the region. They also identify the need to reach producers and other value chain actors to deepen the understanding of the value chain for all involved, as well as improve entrepreneurship and thereby the inner motivation and competence of producers, among others. All in all the strategy entails many relevant and interesting measures to be taken to increase the production and perception of agricultural products produced in Norrbotten, and it will be interesting to see what will come out of it. One thing it appears to lack though is plans for collaborations with other counties, or even countries, to create and share knowledge which could help improve the challenges faced in cultivation among other areas, and in the end improve the conditions for innovation to occur.

5.5 Suggestions for future research

As it was mentioned in the introduction, not that many studies have been done on horticultural production in northern Sweden, and especially not on berries which are the main horticultural crop in that climate. This study was exploratory in its nature due to this, and it can hopefully help to shed some light on the potential for future studies that can help further the knowledge in the field of horticultural economics, and beyond it.

For starters it would be interesting to further study the internal drivers and brakes of producers, as this study suggests that identity and motivation are crucial in determining how a producer acts when faced with change as well as whether the producer actively drives change. Another important topic for a future study would be the agricultural knowledge and innovation systems and how what roles they play in different horticultural industries, and especially in different geographical regions.

A more comprehensive rural perspective would also be useful in a study looking into potential collaborations to further the rural populations at large, where tourism or events could well work together with production or processing to provide an increased added value to consumers.

Another field that would be of interest is a study of horticultural industries based on Porter's five forces model, and to take a historical viewpoint to see how positions of producers have changed over time and if there are patterns in how, at least certain, horticultural industries develop in regards to the positions of the producers. This could then be of help in finding good examples of efforts that can improve the strategic position of producers.

In regards to the value chains studied for this thesis there are still nooks and crevices waiting to be studied, among them one that would mean diving into the value chains to actually sort out where and how value is added, as well as how costs are carried and divided between actors in the value chain. For this it would be useful to shift focus from the producers to the entire value chain with all its actors.

Taken all together there is still much to study and research about horticultural production in northern Sweden. This is especially true when venturing out of the field of cultivation and into the field of economics, and unavoidably also rural development as these are tightly linked when the producers themselves are a part of the rural populations.

6. Conclusions

The national food strategy is becoming a reality and as one of its strategic areas is knowledge and innovation it appears clear that we need to know how to further knowledge creation and innovation in our agricultural and horticultural systems. This case study has studied berry producers in northern Sweden and their position and role in the berry value chains, to explore which barriers appear to exist preventing producers from creating innovation in the value chain, and which potential for improvement they see in the future to overcome those barriers. The main findings of this case study are that there is a need for common platforms that bring together different actors in the value chain, and encourages networking and knowledge sharing between them, as well as a stronger support network to capture and help create new knowledge, which is the basis for innovation. There is also a potential for more rural networks, to find new business opportunities for creating added value to consumers by supporting collaborations between for example producers and processors, or producers and tourism agents. The study has also found that there are differences between producers, in regards to how they view themselves as producers and in what drives them to produce berries, which influences how likely a producer is to be innovative and open to new ventures that can help to develop the local industry. In addition to the findings about producers and their roles in value chains, the study has also served as an example of how policies and political decisions can affect value chains and the attitudes of its actors for a long time, as in the case of blackcurrants where the production was promoted by local authorities to later become a part of the deregulation of markets.

7. Reflections

During my years as a student I have worked a lot for student organisations, which has given me a chance to work on a strategic level. Together with my studies this has made me inclined to always look at systems rather than individual entities, however messy and interconnected these systems may be. When I started this thesis, I was therefore very focused on looking at systematic barriers and opportunities, as I was imagining that for example improved communication or infrastructure would be the key to make producers into processors. What I quickly started realising during the interviews though, was that things were not that clear-cut in reality, and in my analysis I started seeing that the parameters that appeared to be hindering this shift was really to be found between the lines, or in the matters not discussed directly. The fact that identity and attitudes, together with a network or platform for knowledge creation and sharing, and social relationships seemed to be at the real core of the answer therefore surprised me. It took a while to realise that my data was really saying that the answer as to why the regional berry production in northern Sweden looks the way it does lies in the human factors, some more individual and others more in the interfaces between actors in the value chain. In society at large, it appears that parameters which can easily be quantified are more useful to inform policy and changes to a system, especially in regards to following up activities and changes, but having followed the data rather than my own original ideas I am left wondering if we sometimes need to look beyond the quantifiable to find where change can really make a difference.

Another thing which I came to realise during the interviews was how unaware many producers are of the system they are in, where many do not know what buyers do with their berries, how their competition really looks, what prices would be needed based on costs and perceived values, and so on. They simply work the way they have always done, sometimes trying something new because of interest or because they have heard about it from someone they know. As I was expecting them to be more aware of the entirety of the value chains they were in, or how prices looked along the value chain, I had to change my way of asking about over the course of the interview week, and accept that no matter how I asked there would not be an answer as comprehensive as that which I had expected.

There are several things I bring with me from this thesis work, including how important it is to remain open to what the data is truly telling you, how there will always be things that do not go according to plan, and how working with data can be harder than expected. I for one had never before conducted a study based on interviews, and therefore failed to realise ahead of time how much time it takes to transcribe and analyse interviews. In my case I ended up with almost 24 hours of interviews, which took weeks to transcribe as I soon realised that a good day meant transcribing an absolute maximum of 1,5 hours worth of interview time, as each interview hour took roughly 3 hours to transcribe. In retrospect, I realize that a more limited interview, where both time and topics discussed were more controlled by me, would have decreased my work load significantly. At the same time I doubt I would have come out with the same results, as many of my findings came quite a bit into the interviews, when I allowed the interviewees to talk about the topics that they were the most interested in themselves.

All in all, I have truly enjoyed working with this thesis, especially because of the people I have been able to meet, all the theories I have been introduced to and the way it has had me constantly question my ideas and assumptions.

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Appendix 1: Interview guide

Short presentation of the research project with its purpose and aims.

Degree project within the horticultural science programme at SLU.

The situation of berry producers in northern Sweden, including the history and current state. Challenges, motivations, reflections etc along the way. Eleven producers interviewed.

Role is not to critically examine individuals but to find patterns explaining the current situation of berry producers in northern Sweden.

Technical details

Approximately 1 hour

Sound recording

Anonymity

Will get the opportunity to comment on the quotes used for the thesis

Background information

Tell me a little about your berry production?

- When did you start?
- How large is the production area?
- What do you produce?
- Where is your production?

Interview themes¹

Motivation

- What made you start a production?
- Do you have other sources of income apart from the berry production?
- What advice would you give a producer just starting out?
- Which opportunities do you see now and in the future?
- What is your biggest challenge as a berry producer?

Support network

- Are you in contact with other producers? How?
- Which support was there when you started out as a producer?
- How do you receive or find new information or knowledge concerning your production? How would you like it to work?

Value chain

- How do you sell your produce? Through which channels?
- How are prices negotiated?
- What does the buyer do with the produce?
- How do you find buyers?
- Which processed products do you think would be interesting to develop?

Production

- What does a production year look like?
- How do you ship or package the produce?

¹ The themes were originally organised according to a temporal scale, focusing on when the producer began production to the current state to future visions. This was reorganised after the first two interviews as interviewees showed a clear preference to focus on themes rather than time. All themes therefore include these three temporal aspects even though they are not mentioned here.

Appendix 2: Original interview quotes in Swedish

Value chain

1. *"Jag tror ett år fick vi till och med ja 15 eller 16 kr/kg. Och det lockade ju igång alla /.../ tog ju ner priserna så ett år fick vi ju 80 öre/kg och då betalade de 24 kr/kg för lingonen. Så då förstår man att det ju var snett någonstans. Och det har ju fortsatt med att vara så där snett för det är ju globalt det svarta vinbär, det tas ju inte hänsyn till om de är odlade här fastän de har högre den inre kvaliteten är ju betydligt annorlunda än det som kommer neröver."*
2. *"Vi har ju fått 10 kr/kg förr, nu får vi 12"*
3. *"Men det är fruktansvärt mycket jobb och egentligen skulle man ta 1000 spänn [sylt]burken med tanke på allt jobb. Det är otroligt svårt att ta betalt." Dels är det att ligga och rensa för hand, ogräs, vilket är jättejobbigt med de här stora fälten, sen plocka dem är ganska tidsödande. Men det går inte att ha någon timtid på det här"*

Motivation

4. *"Så då kom vi in på det där med svarta vinbär som det ju propagerats en hel del för"*
5. *"Svarta vinbär var det som var aktuellt"*
6. *"Det fanns kalkyler att man skulle kunna ha en god lönsamhet. Man trodde att bären skulle hålla sig ganska friska här uppe och sjukdomar hade inte kommit så mycket av, än kanske. Det var väl ganska bra betalt just då för bären. Det fanns ju många vinbärsodlare i den svängen. Nu är det nästan inga kvar. Sen var det också ganska lättsamt med försäljning och transporter för det var många som också var odlare som hade åkeri och hämtade bären och körde."*
7. *"Man skulle bli rik på det./.../ Jo prognoserna som de hade då det stöddes ju vinbärsodling mycket då på mitten av 70-talet, man fick stöd från allt möjligt. Det var ju länsstyrelsen, jag vet inte varifrån pengarna kom men det var ju vår den här landshövdingen som drog på. Nå det var ju ovan där när vi skulle börja med det där inte vet jag nu om det har varit men riktigt så har det väl aldrig varit så mycket. Prognoserna visade."*
8. *"Jag vill göra något kreativt så jag blir trött i kroppen. Jag har ju alltid tyckt om att odla så, ja men då provar vi det"*
9. *"Eller jag ville odla, jag ville hålla på med bärodling. Så där är det."*
10. *"Vi hade ju provat att odla korn här och kände ju bara att vi kan ju inte låta det växa, jamen förbuskas, det kändes ju fel när det är så mycket jobb som är lagt ner för att få upp jorden här."*
11. *"Ja vi måste ju göra någonting på marken, och då fanns det ju ingen efterfrågan, absolut ingen på svarta vinbär när vi började och jag vet en jordgubbsodlare nere i, han sa vad är du för en förbannad idiot som börjar med svarta vinbär när alla andra slutar."*
12. *"Finns det mark så ska man ju göra något."*
13. *"Vi har just den här jordplätten, och den lämpligaste grödan blir ju jordgubbar."*
14. *"Det här är ju så enkelt, det är ju klippa gräs och det körde jag ju medan man jobbade gjorde man ju det på kvällarna och ibland på helger. Nä men det här med svarta vinbär det är ju ändå inte så hemskt mycket jobb med det. Och det är bara traktorjobb, och plantering visserligen. Så nog har jag väldigt många timmar på traktorn. Men var då inte roligt att sätta de där sticklingarna, nog var det inte farligt, två dagar. Stoppa ner de där pinnarna. Numera har vi dock gått över till plantering av färdiga plantor."*

Support

15. *"Inte blir det någon stor vinst för oss, inte blir man rik. Går det ihop i år får vi väl vara nöjda. Men det här bidraget svarta vinbärsbidraget det är ju så mycket bra så utan det tror jag inte det skulle gå."*

16. *"Jo men de har de haft hela tiden, men det här med odling de har de lagt ner mer och mer."*
(om Öjebyn och företagsstöd för odlare)
17. *"Men vi fick, det var ju så mellanhanden tog mer än vad vi fick själv. Så då, för då sålde vi även då självplock så är det mest självplock vi säljer. Då sköter det ju sig själv. Man får bara kolla, men även då beställning för de som inte kan plocka."*
18. *"Nu har vi bara Hildur, alla har bara Hildur, det har varit årtal bara Hildur. Vi har inga sorter, men det är ingenstans att ta heller nya sorter. Det är det man känner är problemet, vi har ju inga nya produktion eller utveckling. Det händer ingenting. De har som lagt ner i Öjebyn. Man har ju som inte pengar för det."*
19. *"Och sen men det var ju det också att när jag började ringa runt i Finland och i Sverige, i Finland säkert över 20 olika ställen och i Sverige också och det var ju ganska skrämmande så man fick ju reda på att nej vi koncentrerar våra bär till mellersta Europa. De importerade alla bär nästan. Det var ju ganska skrämmande faktiskt. Både Finland och Sverige."*

Cultivation

20. *"Jo, egentligen ska man byta växtmaterial ganska ofta för att klara sig. De var de här vinbärsmal och vinbärsknoppmal ett tag som var ganska förödande."*
21. *"Det har vi jobbat mycket med, ogräset. För hand då. Det trivs ju bäst."*
22. *"De var ju brännässlorna där det var ju så hemskt det var fruktansvärt. Vi får se hur det här går."*
23. *"Det är ju bara det, har man odling, man måste hålla efter. Blir man efter på våren då är man efter hela säsongen, det är ju samma allt måste göras en viss tid, i rätt tid jo."*
24. *"Nej, det har vi inte, så egentligen skulle vi ju haft en ny mark och så hade man försökt att där kunna flytta så får det där vara i träd så man skulle ha växelodling, men det har ju inte gått."*
25. *"Men det har ju varit som dåligt så man vet inte om buskarna var helt friska då heller. Det är ju det som är ju svårt, det är så svårt att få någonstans sticklingar när man inte vet att de är. Det här med knoppmalen och skottmalen det har ju allihopa"*
26. *"Men det är skillnad, en sort går bra här, en i [Ort X] och en i [Ort Y]"*

Market

27. *"Men ja just det, jag är ju, men det var ju som Jock kom också att alla trodde att det var ju bär från Norrbotten och men det står att "bär från vildmark". Det är så vilseledande"*
28. *"Och det har ju fortsatt med att vara så där snett för det är ju globalt det svarta vinbär, det tas ju inte hänsyn till om de är odlade här fastän de har högre den inre kvaliteten är ju betydligt annorlunda än det som kommer neröver"*
29. *"Klart vi skulle vilja ha närmare till någon som köper, det är bara svårt. Vi har inga och har aldrig haft tankar på någon förädling själv, och det vi nu säljer har vi ingen marknadsföring för, och har inte haft på flera år då vi har kunder som vet att vi säljer och att man kan beställa och hämta när det skördats. Ungefär den omfattning tycker vi är bekvämt, det skulle nog gå att marknadsföra och sälja mycket mer. Men då ska det ringas och ordnas, vi vet aldrig så långt i förväg när skörden blir."*
30. *"Men så är man ju lite fega på att ta ut, tänker att det är bättre att vi blir av med det än att. Det är väl innan man blivit något namn."*
31. *"Man får inte fixera alltför mycket på priset och i en sån här bransch går det inte, man får ta det man får idag".*

32. *"Det ligger nog mycket på breddgradstänket. En annan sak som jag brukar säga bara här i länet, det är när man ser och känner på jordgubbar från härifrån och vi var på Österlen och alltså Polka där smakar ju ingenting i förhållande till här."*

Networks

33. *"Väldigt fin människa, jag hoppas att det blir någonting av hans arbete för han har lagt ner så mycket jobb"*
34. *"Det är ju via NBG man träffas."*
35. *"Det är nog, ja du vet vi slutade ju en gång, två gånger har vi slutat, med jordgubbar men det har ringt så mycket folk att ni får inte sluta, det är därför vi började om igen"*
36. *"Vi har kontakt med alla."*
37. *"Hitta kontakt med folk, det finns mycket forum på nätet, folk som är lite småintresserade, det är bara att testa, det är det som är viktigt, att testa, vi ympar en del själva, ber folk skicka ympkvistar så vi kan testa."*
38. *"Sen har vi ju varit på de här mötena, NBGs, det är ju jättebra, jätteroligt. Man borde ju anteckna mer, man glömmer ju bort."*
39. *"Jag har ju varit på de här möten, de här träffarna och det är ju jättesvårt, man vet ju ingenting alltså, så man får ju fråga. Det är ju bra, de är hjälpsamma (NBG). Man hör ju att det är mycket erfarenhet, man kan inte läsa sig till så mycket med den här jordgubbsplanteringen, alltså jo det kan man ju hur man ska späda och den här gödslingen och det. Men ja jag tror man måste göra ganska mycket misstag för att se hur det blir just hos oss."*

Visions

40. *"Skandinavien behöver en sensorisk profil"*
41. *"Vi måste förstå oss själva och våra möjligheter"*
42. *"Vi får inte blunda tills vi ska sälja det, det behövs en dialog"*