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DEVELOPMENT PLAN FOR A SMALL-SIZED FARM
Profitable Development Ideas on Products, Services, Marketing
Methods and Customer Service for Kettulan Tila 2012-2014

Thesis

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<p>Abstract</p> <p>Kettulan Tila went through a succession in the beginning of 2010. The production was changed at that time from a dairy farm to a crop farm, producing mostly strawberries and hay. The farm had not conducted any research on its business environment, so it has had difficulties in becoming profitable.</p> <p>The main aim of this research was to find different development options for Kettulan Tila. Only development ideas related to products, services, marketing methods and customer service were taken into account. The research material contained 12 qualitative interviews of farming experts, farmers and customers. In addition to those, quantitative statistics about amounts of farms, production area, yield, and producer prices were used to support the research findings.</p> <p>The research indicated that horticultural production is more profitable for a small-sized farm like Kettulan Tila. Profitability differs based on the specific horticultural product, a fact that greatly influenced the suggested ways to increase Kettulan Tila's profitability. Berries, which are perennial plants, have a better market position and higher price than vegetables; vegetables also require annual field preparation, using both time and money. Furthermore, the research determined which berries should be produced to optimise the available resources.</p>		
<p>Keywords</p> <p>development plan, small-sized business, profit generation, horticulture</p>		
<p>Note</p>		

Abbreviations

B2B – Business to Business

B2C – Business to Customer

BOD – Biological Oxygen Demand

CAP – Common Agricultural Policy

CRM – Customer Relationship Management

ELY Centre – Centre for Economic Development, Transport and the Environment

ETL - Finnish Food and Drink Industries' Federation

EU – European Union

GDP – Gross National Product

IT – Information Technology

LFA – Less Favoured Area

MTK – The Central Union of Agricultural Producers and Forest Owners

OECD – Organisation for Economic Co-operation and Development

R&D – Research and Development

SPS – Single Payment Scheme

SWOT – Strengths, Weaknesses, Opportunities and Threats

Tike – Information Centre of the Ministry of Agriculture and Forestry

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1 INTRODUCTION

Farming is one of the most important human activities. It is also a major part of economy in most of the countries in the world. Farming is the basis of foods supply for entire population in the world. Therefore, farming is a part of human life since the evolution of mankind. In some countries, like Afghanistan, it is the main source of income (United States Department of Agriculture, 2010). In some other countries, like Cyprus, it is a minor part of income (Solsten 1991). In Finnish economy the share of farming has decreased in the past 30 years, being now about 3 % (Fact Rover 2002). According to Brouwer and van der Straaten (2002, 1), farming is also one of the oldest industries in the world: it started in Europe in the late Neolithic period about 2 000 BC. Farming has been the main source of employing people in the countryside of Finland and in other countries too. There are about 62 000 farms in Finland nowadays and about 300 000 people are involved in farming and agricultural industry directly and indirectly. (Finnish Food and Drink Industries' Federation; and Food for Finland 2009)

Farming mainly differs by what it raises, such as crop farming and animal farming. As well, farming can differ by the size of the farm. By the type of products, there are hundreds of different farms. By the size, there are only three different types of farms, which are small-sized farms, medium-sized farms and large-sized farms. In addition to these above mentioned differences, also the level of income can be different. For instance, the large-sized farms are having good profit because of the large amount of products and sales, so these farms can run their business further without facing major problems. The medium-sized farms are having reasonable income or profit, which means they can manage the business and continue. The small-sized farms are having problems of making profit or a good income. Due to above reasons, the small-sized farms which are growing wide variety of crops have been replaced by the bigger farms which are consisting of extensive field of a single or few crops. This makes the average size of the farm bigger and number of farms drop. Furthermore, this situation increases the unemployment in the countryside. Moreover, the European Union (EU) affects farming by the different directives and guidelines. As farms that cultivate in more environmental friendly ways, are getting more funds from the EU, it

encourages farmers to think about the environment. That way the negative impacts on the environment can be minimised.

This research focuses on finding development options for Kettulan Tila in order to get the business more profitable. It is important for the farm to get the benefits from the research, because it is quite new in its business environment, and it has not done any proper studies in the business environment before. The research approach is qualitative, and the main research method is interviewing. In addition to the qualitative interviews, quantitative statistics are used to support the research findings.

1.1 Research Aim and Problems

The aim of this research is to provide useful information for Kettulan Tila farm about what kinds of development possibilities it has. This particular farm is located in Rääkkylä in North Karelia region. The research will find out the trends in farming in Finland and especially North Karelia area due to the location of the farm. Based on the results of the research, some development ideas will be recommended for Kettulan Tila. This means that the research will, for instance, suggest the farm to cultivate some special plant or do some other kind of product development. The suggestions are based on what the research shows, for instance how the market situation is for certain products. The main reason I chose this specific farm is that when I was doing my second practical training in Kettulan Tila in the summer of 2011, I found there are some problems to solve in its business. It motivated me to do my thesis on this farming business. As well, my work experience in this specific farm gives me a good opportunity to do a useful research on its business, because I know what to improve there, so I can find the answers for how to improve. It would be a great help for the owner of the farm if I could find some good development ideas for the business.

Kettulan Tila went through a succession in the beginning of the year 2010. Before that it was a dairy farm, but after the succession it became a crop farm with one new product, strawberry. At this moment strawberry fields make a small share of the total field area, as the main part is covered by hay production. The farm grows also barley and has a horse breeding unit. It is a small sized farm with about 25 hectares of fields, and it is operating as a family business so far. Although it is a small farm, it has its own machineries which are essential

for its business. Renting the machineries to other small farms that do not have such machineries is also a part of Kettulan Tila's business. At this moment, Kettulan Tila faces a lot of challenges in its business. As it did not have any good profit in the first two years of its business, the main challenge is how to make the business profitable. It also does not have any good market area so far, so finding a good market share is another challenge for the farm. As there have been many similar farms in the area since long time, it is also a challenge for Kettulan Tila to compete with those farms which already are popular between customers. Therefore, it is very important to generate a good development plan for Kettulan Tila for its future sustainable development.

Since Kettulan Tila wishes development ideas concerning especially new products and product development, this research will concentrate mainly on berry farming, because the farm already grows strawberries. Kettulan Tila started growing strawberries in 2010, which means it has been only two years in the field. When a business is very new, there can be lots of challenges to face and to survive in the field. Since the owner is also a young person who runs own business for the first time, she can have a lack of experience and development ideas. The research will try to find out those problems effecting on Kettulan Tila's business and to suggest solutions for the problems. Therefore, this research will have as an outcome a development plan for Kettulan Tila with a time frame. Furthermore, this project will give me an opportunity to use my knowledge which I gained while studying in the Degree Programme in International Business at Savonia University of Applied Sciences in Varkaus.

There are three major problems to find the answers for by this research. These questions are covering the following areas: developing the products and services to gain more profits, attracting more customers through the most effective marketing channels and maintaining good customer relationships through high quality customer service. As the farm is still in its beginning stage, it would need some suggestions and recommendations for future development. Therefore, finding answers for these problems will provide some useful information for the development of its business in the form of a development plan which will cover the next three years. The research problem is in a form of a question as follows:

What are the most beneficial development activities to gain more profit for Kettulan Tila within the next three years?

- a. How to develop products and services to gain more profits?
- b. Which marketing methods should be used and how, in order to reach and attract more customers?
- c. How to develop customer service to maintain good customer relationships?

Other development options, such as greenhouse farming and renting cottages, which are not mentioned above are left out from this research. The reason for this limitation is to keep the research area narrow enough so that the research will not grow so large. If the research area is too large it will be possible to describe the phenomenon only scarcely and not deeply, because the report would be too long then. As the main idea is to get benefits from this research, it is best to narrow it down to the most important research area. Then it is possible to research deeply into the topic and the reporting will be reader-friendly.

1.2 Materials and Methods

Finding information will be one of the major parts of the research. For that, there will be many different ways to be used. For instance, reading materials, visiting web sites about farming, collecting information from all the possible sources. As well, interviewing many different people or experts will be one of the major ways of gathering information. The interviewees are the present farm owner, previous farm owner, some other farmers and some experts of farming as well as some customers. The interviewees are introduced better in the beginning of the empirical part in chapter 6. Altogether there are 12 interviews. All the people were interviewed for the research in spring 2012. The basic structures of the interview questions for farming experts, farmers and customers are found in Appendix 1, Appendix 2, and Appendix 3 respectively.

The theoretical framework of the thesis will discuss for instance the relationship between agriculture and nature, how agricultural activities are affecting the nature and how to prevent abuse of the nature. There is discussion on how agriculture affects and develops the countryside, and how to keep the relationship between them beneficial for all. As well, the European Union and its effects on the agriculture are explained. Then, another important part

in the theoretical framework is Finnish food industry and farming in Finland, and North Karelia. This part will explain shortly the history and development of farming in Finland. The third level in the theoretical framework consists of information on marketing and customer service which is essential for this research.

The research material contains in addition to the 12 qualitative interviews also some statistics related to the development in amounts of farmers, production area and yield in horticultural production. In addition to this, statistics on the producer prices of certain horticultural products are taken into the research. The research material will be analysed for the most part with qualitative approach research methods. First of all, the interview answers are read through to get a total image of the answers. Then, answers are categorised in three parts. These parts are answers related to products and services, answers discussing marketing methods, and answers focusing on customer service. After the categorisation, the three groups are carefully checked one by one and the positive and the negative development options are marked. Then the results are written in the report.

The statistics are analysed separately from the interviews, and the results are also presented in a different subchapter. The reason for this is that the nature of the statistics is different from the interviews as the statistics are just plain numbers. It may be confusing to mix the numeric data with the interviews as it can be difficult to find a proper place for the statistics within the text. Therefore the numeric data is analysed and the results presented separately. The statistics were collected from two different sources. Statistical data on development in amount of farms, production areas, and yield was collected from Information Centre of the Ministry of Agriculture and Forestry (Tike). Price differences in different products were gathered from Kasvistieto Oy. The development in amounts of farms, production areas, and yield is proven by following the changes between 2000 and 2010. The price development is followed checked between 2005 and 2010. In the analysing of the numeric data, it is first checked whether the production has grown or decreased. Then the average yield is calculated and the price changes are checked. Finally, the average yield and price are compared in order to decide the profitability of the production. This will help to decide which kind of production would be beneficial for Kettulan Tila, when the farm wants to get more profits.

1.3 Previous Research

There has not been any previous research on Kettulan Tila. This is the first research involving its business. Few students consider farming as a major business, although it is one of the main industries in many countries. Therefore, there are not many previous researches can be found. In some libraries, there are few theses which are about Farming industry. As the world population is growing rapidly, the demand for foods is also increasing. Nowadays everywhere experts are forecasting about the foods prices hike and foods scarcity, as it will be a major problem in the world. As well, there are many countries where the people are having a huge shortage of foods at this moment. The world is in a kind of future danger because of neglecting agricultural researches. Therefore, it is important to do more researches about agriculture to find out the solutions for the potential problems. Doing more research about agriculture also will help the farmers to find methods for sustainable development of the farms. It is also important to invest more on agricultural research and development (R&D).

2 AGRICULTURE AND ENVIRONMENT

Agriculture and environment are two correlating subjects. As environment can effect on agriculture, agriculture also can effect in many different ways on environment. These impacts can be advantageous or disadvantageous both for the agriculture and environment. In a way, agriculture is also a part of environment. Agriculture can be divided into two different modes, traditional agriculture and modern agriculture. Nowadays most of the farms are using modern agriculture methods. Therefore, it is worth to discuss more the modern agriculture, because it has also the most impacts on environment and society today. (Kazimirski 1998)

The main sources of agriculture are crop farming and livestock farming. The crop farms are producing lot of oxygen to the nature while absorbing carbon dioxide and other gasses in the air, as same as other trees in the nature are doing. Although the animal farms do not help that much for the nature, they are also helping to keep the balance of nature in some ways, as same as other animals in the nature are doing. Old time agriculture was very close to the nature. Farmers used natural methods to do farming. They used animals instead of the big machineries of the present day. They used natural ways to kill the deceases and other harmful animals or weeds. Therefore, there was more environment friendly agriculture in those days, than harms agriculture did to the nature. Today, the agriculture has become more harmful to the nature due to many reasons. For instance, use of heavy machineries, pesticides and fertilizers are bad for the environment. Therefore, it is worth to discuss the effects of agriculture on nature, so it would help to find the solutions to avoid harming the environment. (Ministry of Agriculture and Forestry 2010; and Parris 2002)

2.1 Effects of Agriculture on the Environment

Agriculture is the major user of lands and water resources in the world. As the world population is growing every day, there should be a sufficient amount of agricultural production to feed them all. Therefore, the amount of present farm lands must be increased. When the amount of farming lands is increasing, some other part of the environment will be decreased. For instance, the major way of increasing the farm lands is by destroying the

forest or deforestation and converting those lands to farms. Destroying the forest is affecting a lot the balance of the environment. For instance, deforestation causes reduction of the drinking water resources, soil erosion and climate changes. It also changes the rain cycle, which will effect by decreasing water resources for agricultural use. The potential degradation of natural water and soil resources can be vital to both productivity of the farms and human health. Therefore, there are a number of potential environmental impacts of agriculture. (Barbier, 1-3; Environment Agency 2006; and Skinner et al. 1997)

Nowadays, agriculture projects are using many methods to increase the efficiency or productivity. For instance, use of fertilisers and pesticides, use of new machineries, development of hybrid plants and more training programmes for the farmers can be some methods used by agriculture. Although use of fertilisers and pesticides increase the productivity, they are very harmful for the environment. When farmers use those chemicals in the fields, most part of them is just adding to the environment without getting used. When it rains, those chemicals will flow with the rain water in to the water resources and they also can leak to the ground water underlying in farming areas. This will contaminate the drinking water supplies too. When this contaminated rain water enters to the flowing water streams like canals or rivers, it can enter to the lakes too. In the end, fishes, other animals and plants in those water resources will also be affected by the chemicals. (Skinner et al. 1997; and Uri 2006, ix-x)

Moreover, the water bodies will have an increase of biological oxygen demand (BOD), so the fishes and aquatic flora will have a shortage of oxygen. Those chemicals can also cause the decline of some bird species and other animal species in the nature. As well, these chemicals can destroy the micro bodies in the soil and in the air too. Some of those micro bodies are very useful for farming, so their destruction is bad both for the farm and for the diversity of nature. Since micro bodies are helping for bio degradation, destroying them will cause the decrease of the nutrients surplus in soil. Pesticides can also pollute the air, which is very dangerous for human health and other animals. Using the machineries is not bad as using chemicals, but still the machineries are polluting the air by carbon dioxide and other gas emissions. Moreover, using heavy machineries can cause on sound pollution and also changes in arable lands. (Environmental Centre for Swaziland 2001)

Furthermore, the agricultural activities can change the present condition of living beings. For instance, heavy use of pesticides can develop pesticide resistant pests. As well, heavy use of fertilisers can effect on nutrients cycle in soil and it will create arid lands, so those lands will not be any more suitable for cultivation. Some agricultural products, for instance some grains have a strong husk and this part is not eatable by human, so every year billions of tons of this husk is thrown as waste in to the nature around the world. When these tons of husk stay long time and contact with water, it creates methane gas which is a greenhouse gas, and it can cause climate changes too. Agriculture can effect on the natural activities of environment, such as waste absorption, soil erosion control and ground water recharge. The soil erosion effects on the productivity plants, because the erosion removes the surface soil which contains some of the most important things for a plant to grow, for instance, plant nutrients, water and soil particles. To form one inch of agricultural topsoil, it takes about 300 years in average, but it takes very few years to destroy it by agricultural activities. Therefore, the soil lost by agricultural activities is almost like irreplaceable. As well agriculture has impacts on changes of wild life habitats, changes of biodiversity and reduction of the number of species of plants and birds. Deterioration of landscapes is another impact of agriculture on environment, because when the farming lands are increasing, the natural landscapes will be destroyed or decreased in the size. (Trautmann et al. 2012)

As people have understood how agriculture can effect on the environment, they have created many regulations and standards to minimize the negative impacts. One way to measure efforts to protect nature is to look at the six levels of environmental standards that set limits for agriculture. These levels are called:

1. Agro-chemical regulations, which limit the use of fertilisers and pesticides;
2. Water quality standards, which are related to potable water supplies and waste water discharge;
3. National and local planning regulations, which concern, for instance, legislation on land use;
4. National legislation which consists of national parks and nature reserves;
5. International agreements for the protection of specific areas, for instance the World Heritage Convention; and

6. The preservation of species, which contains, for example, the CITES Convention on trade of endangered species. (Environmental Centre for Swaziland, 2001)

This shows that on all three areas, local, national and international, environment is protected, and the impacts on it are under control.

2.2 Benefits and Disadvantages of Agriculture

Agriculture has many advantages and disadvantages. The benefits are the things mostly useful for human and the nature, and disadvantages are those that should try to be avoided, but it is not always possible. There are many benefits of agriculture. These benefits can be social benefits and environmental benefits. The main benefit of agriculture is that it feeds the whole world population. Without agricultural productions, living on the earth will be extremely difficult for human being. Agriculture also keeps the foods items at an affordable level around the world. Agriculture produces not only foods like fruits, vegetables, meat products and dairy products, but also raw materials for some textiles and medicines. For instance, cotton is used for making clothes, tobacco and some herbs and plants are used to make medicines and cigarettes. (Foresight 2011)

Agriculture has started thousands of years ago with the human evolution, and nowadays it has become a major industry. Agriculture is also one of the main sources of employing people around the world, especially in the countryside. There are millions of people involved in agriculture and most of their main income is agriculture. It could be from small urban farm up to thousands of hectares big agricultural land, the benefits for the society are same. It has also become a part of economical stability of countries. For instance, nowadays many economists or futurists are talking about upcoming food crisis in the world and by that millions of people will die in future. Nevertheless, if any country is self sufficient by agriculture, that country does not have to rely on other countries, so the country will never face such foods crisis or price hikes. It is a social benefit of agriculture. Agriculture has also become a part of tourism nowadays. For instance, lot of European tourists are visiting and working as volunteers in tea plantations in some Asian countries, such as Sri Lanka, India and China. (Biuso 2007)

Crop farms are having plants which are producing oxygen during photosynthesis and absorb carbon dioxide, which means improving the air quality too. Organic farms are enhancing the crops resistance against pests and other harmful environmental conditions, such as different climate conditions and soil erosion. Crop farming can increase the cycle and storage of nutrients. Agriculture also helps to reduce the soil erosion, especially in mountainous areas, because the roots of the plants can keep the soil not to apart from each other. Furthermore, agriculture is helping a lot for biodegradation. In crop farming, ploughing the ground is one of the main activities. Ploughing diminishes soil compaction, and it helps to mix oxygen into soil more and more. When the soil is rich with oxygen, the microbes are better active and it makes biodegradation faster. Agriculture is also a part of water cycle and many life cycles, especially human life cycle. Agricultural waste can be used as an energy generating source, for instance to produce bio gas and then convert to energy. This can be used as an alternative for oil in many fields, such as bio fuel. As well, agricultural waste can be converted to compost and use them on farm lands is an environment friendly benefit. When using fertilisers and pesticides, some certain nutrients are added to the soil to kill some pests and micro organisms respectively, which are some benefits of crop farming to the environment. (Garcia-Torres et al. 2002)

There are also many disadvantages of agriculture. The disadvantages also can be social and environmental. The main environmental disadvantage is deforestation. As the world population grows rapidly, there should be enough foods production to feed them all. The amount of present farm area must be increased to produce more, so only way of increasing area is by destroying the forest. Deforestation has many impacts on changes in water cycle and soil erosion. It also can reduce the amount of rain water. Animal farms are releasing lots of methane gas, which is a greenhouse gas. As well, animal farms are adding more carbon dioxide to the environment. Deforestation, greenhouse gasses and carbon dioxide emission have lot of impact on global warming. Crop farms are using a lot of water, so it can cause on reduction of ground water level. Using heavy amounts of fertilisers and pesticides can add extra chemicals to the environment. These harmful chemicals will mix with rain water and flow in to the streams and lakes, so the water can be contaminated. It is very harmful for aquatic plants and animals. It also can be very harmful for human. Using chemicals and wasting the extra parts to the nature can pollute the air and soil, which can cause health risks

for human and other animals too. (Barbier, 1-3; Environment Agency 2006; and Skinner et al. 1997)

Pesticides can enhance to generate a resistance in pests against pesticides and also create new strains of pests which will not respond to the present chemicals at all. Pesticides can destroy some important animals and plants in the soil. Farming activities can also interrupt the biodiversity. It also can limit or destroy natural habitats of wild creatures. Agricultural activities can reduce humus level in the soil, because the crops are using the manure in soil many times faster than it creates. As well, the heavy use of fertilisers in agriculture is adding only some specific nutrients to the nature, so in long run there will not be variety of nutrients in the soil. When a farm is using the land for similar kind of crop for a long time, the genetic diversity of the land can erode. Agricultural activities can impact on extinctions of thousands of plant and animal species from the earth around the world. The hybrid plants can cause the lost the genetic diversity of crops which can lead to a future breeding challenge. Moreover, extending the farming lands to wet lands will create a shortage of water for crops and for other uses. (OECD)

Agriculture has sociological disadvantages too. For instance, because of the globalisation, nowadays many countries are producing some certain agricultural products and the rest are imported from other countries. That means those countries have to rely on other countries, so one country's price hike or instability can effect on other country. Globalisation of agriculture also can cause famines. For example, if a long drought occurs, some foods producing countries will cut down the amount of exports of foods. The countries which are depending on those countries will have a heavy shortage of foods which will lead finally to a famine. In some areas of the world, especially northern and southern parts of the world, crop farming is mostly done only in the summer season. Therefore, after the summer end, the people who involved in farming industry will be unemployed. In some countries, the government has to take care of those people while in other countries the people have to find a way of living. This is a sociological problem of agriculture. There are also some other disadvantages of farming for farmer. For instance, some years the farmer has to spend much more than what he/she can earn by the harvest. Some years there are droughts, so the farmer has to pump water for the crops, but because of too much heat by the sun during the drought, the yield could be less than expected. Therefore, the farmer can have a loss. As well, the

similar damages can happen by sudden growth of pests and weeds. Too much rain also can destroy the crops. If these happen, the food prices will hike, so it is disadvantages for the customers or end users too. (Priess et al. 2007)

2.3 Agriculture in EU States within EU Regulations and Guidelines

European Union (EU) has lots of impacts on many different fields in between EU countries. These impacts are followed by the EU regulations and guidelines. Finland joined the EU on 1 January 1995, and since that, Finland also has to follow the EU regulations and guidelines of farming and many other areas.

The EU farm policy, which is also known as the Common Agricultural Policy (CAP), guarantees that there is enough European food produced, and that the countryside stays economically viable. In addition to this, it helps in the management of environmental challenges, such as climate change and biodiversity. The policy calls for quality food, not for quantity like in the past. There are three main aims in helping the food producers. First of all, the food producers should be able produce adequate amount of safe and high-quality food for the European market. The countryside also gets economical aid so that the areas can be developed. Finally, the producers need to meet the high standards regarding welfare of animals and environmental care. In addition to the above mentioned, the policy enables the use of voluntary quality marks that can attract the modern, educated European customer. These marks can indicate, for instance, the origin of the product or the use of traditional methods, such as organic production. This possibility makes the European products competitive even in the world market. (European Union 2012a)

Farmers can receive financial aid from EU, but this supporting net is rather selective nowadays. Furthermore, innovations in farming and food processing are supported. There are multiple research projects that have come up with solutions to the environmental impacts, for instance by inventing the use of waste products as source of energy. In the 1970s farm support swallowed about 70 % of the EU budget, whereas the equivalent percentage of today is only 34. Nevertheless, the EU budget is not the only funding element for farming. Each member state government grants funds for farms as well. The reduced amount of support for farms in the EU budget means that there are limitations on what can

be supported. Mainly the support is given for emergencies and for to make a decent living. For example, if there is a natural disaster, the farm will get support. In return for the support to make a decent living, the producers have to meet standards on various areas such as farm hygiene, animal health and landscape protection. In 2003, the CAP was reformed so that one part of the support related to production was ended and the other part was included in the Single Payment Scheme (SPS). The new system does not grant support depending on the production, but all the farms are getting equal amount which ensures the economical stability of the farms despite of their choice of products. In addition to the SPS, there are also direct payments that can be related to the production. In order to receive this support, the farmer has to meet certain requirements related to areas such as public health, environment and animal welfare. If a farm does not meet the standards or has artificially created the situation favourable to get funds, it will lose the support and possibly get even economical sanctions. (European Union 2012a; and European Union 2012b)

Agency for Rural Affairs (2012c, 13f.) explains the eligibility of a farm and a farmer to apply financial support. A farm is eligible for direct payments if the total amount of financial support is more than 200 Euros. There is no minimum limit for field area for the SPS, but because of the Agri-environment scheme and LFA scheme the farmer needs to have at least three hectares of fields. In a horticultural farm the minimum area is 0.50 hectares. All the fields that get funds must have the right for it. Furthermore, the farmer must use the right for EU funds every other year or he/she will lose the unused rights. In addition to these, the farmer must submit all the needed documents for the authorities before the deadline in order to get funds in that year. A short delay will cut off some of the benefits, and an application which is delayed more than 25 days will be rejected so that the farm will not get any financial support in that year.

Here are some examples that explain what kind of financial support a Finnish farm can get, and what kind of activities need to be done in order to receive financial support. As Finland is divided into several different zones and the amount of funds differs in them, the examples are for a farm located in Rääkkylä, because the case farm of this research is also located there. Firstly, there is the SPS, which is not related to the production but to the rights to receive the funds and fulfilling the standards explained above, depends on the location of the farm. For instance, in Rääkkylä a farm would get this support 203.04 Euros per hectare in

2012. Next, the rural development aid consists of two parts: the Agri-environment scheme and Less Favoured Area (LFA) compensatory allowances scheme. The receiving of agri-environment payment requires, for instance, sustainable farming with less impact on the environment. This support can be divided into three groups. These groups are: basic procedures, additional procedures and specific agreements. Once a farmer makes the commitment to cultivate according to the Agri-environment scheme rules, the minimum period of commitment is five years. Basic procedures include actions like fertilizing the crop and horticultural plants, and maintaining biodiversity. Additional procedures consist of activities, such as minimised use of fertilisers in crop farms, and the use of cover on horticultural plants. Organic production is one of the specific agreements. These agreements last five to ten years and they are signed by the farmer and the government. Funding of the specific agreements can be fixed or dependent of the costs. The amount of Agri-environment payment that a farm can get depends on the procedures the farm has chosen, and also about the production. For example, a crop farm can get basic support 93 Euros per hectare, whereas a horticultural farm gets 450 Euros per hectare for same basic procedures. The commitment period of LFA scheme is five years like with the Agri-environment scheme. The main idea in LFA compensatory allowances scheme is to promote farming in less favoured areas, and keep rural areas viable. The amount of LFA payment in North Karelia in 2012 is 200 Euros per hectare. In addition to this basic payment there can be some other support depending on which plants or animals there are on the farm. (Agency for Rural Affairs 2012c, 33, 39ff.)

Different plants get funded differently through the schemes. Table 1 below shows how much financial support certain plants get in C1 zone, where the case farm of the research is located. The SPS, as well as both EU funded and national LFA schemes are same for all the plants. This means that the amount of financial aid is not depending on the production. On the other hand, Agri-environment scheme and Northern support vary a lot depending on the plant. For instance, berries and vegetables get significantly more Agri-environment payments compared to the other plants. Furthermore, some production like oats, berries and hay do not receive any Northern support. Therefore there can be great differences in the total amount of support that different plants get. The table indicates that animal feed like barley and hay get significantly less financial support compared to for instance vegetables or berries. One reason can be that there is a lot more competition in berries and vegetables and

their market price can go very low. Therefore the higher funds are ensuring the sufficient income for the producers of berries and vegetables. Nevertheless, the table contains only the basic schemes, and as each farm can choose for instance some additional procedures, the final amount of financial aid can be higher than what the table shows.

Table 1. Division of EU funds per hectare for different plants in C1 zone. (Agency for Rural Affairs)

Plant	SPS	Agri- environment scheme	LFA scheme	Northern support	National LFA scheme	Total
Wheat	203	127	200	28	20	578
Rye	203	127	200	150	20	700
Barley/Oats (fodder cereals)	203	127	200	-	20	550
Sugar beet	203	127	200	100	20	650
Open land vegetables	203	450	200	348	20	1221
Berries	203	438	200	-	20	861
Hay	203	134	200	-	20	557

According to the European Commission rule, each member state has to arrange surveillance for farms that they act according to the rules and guidelines, and that they meet the required standards. Every year 5 % of the farms get a check up visit by the authorities, which will inspect some part of farming, for instance that the amount of livestock informed to exist on the farm truly exists, or that the documentation is valid. The Centre for Economic Development, Transport and the Environment (ELY Centre) takes care of the adequate surveillance. If it is found out that the farm does not meet the requirements, economical sanctions are possible. This means usually that according to the gravity of the error, a certain percentage is reduced from the funds from that year and possibly previous years, too. (Agency for Rural Affairs 2012c, 95ff.)

3 AGRICULTURE AS BUSINESS IN FINLAND

Finland is the northernmost country which is capable of producing most of the foods it needs (Ministry of Agriculture and Forestry). While it is having some severe conditions like long and very cold winter, it is self-sufficient in the most areas of foods needful. The Ministry of Agriculture and Forestry is the responsible body for taking care of Agricultural business in Finland. Finland has a highly industrialized economy. It is manufacturing hi-tech products, electronics, wood, metals, some minerals and telecommunications. In recent time, Finland has been focusing on exporting more and more hi-tech products, such as mobile phones and Information Technology (IT). (Dimireva 2010)

In general, Finland is importing more than what it exports. Since Finland is in the European Union (EU), it has widely open free-market economy, which means the business can be done between Finland and other 26 EU countries without borders. However, Finland is still keeping some closed borders for the agricultural imports to the country to protect the local farmers. As Finland has an industrialized economy, it is very important to have good relationship with foreign markets. Therefore, Finnish export income is accounting for about one third of Gross Domestic Product (GDP) of Finland. As in most of countries in the world, in Finland also the main income is generating by service sector which accounts for about 62 % of GDP. About 30 % of GDP is by industrial sector. If only the agriculture is taken in to consideration, it accounts for about 3 percent of GDP. Therefore, agriculture is not anymore a major income of Finnish economy, but it is still remaining as crucial in the society. (Dimireva 2010)

Agriculture in Finland is one of the major industries. It is the major income in the countryside of the country, and it is also the main source of employing people in the countryside. Approximately 3.4 % of the Finnish workforce is involved in agriculture field. Family farms are the base of Finnish agriculture. In 2010, 88.4 % farms were owned by private persons. (The Central Union of Agricultural Producers and Forest Owners)

Farming is mostly combined with forestry business, which means most of the farms own some forestland too. If the farm income is low, at least the forest will give some income,

especially in the winter when the crops are not giving any income for the farmer. Therefore, the farm and forest are correlating. Nearly 70 % of the whole country is occupied by forest in Finland, and in northern and eastern parts of the country the farms are more combined with forest than in western and southern areas. Finnish farms are mostly producing livestock related products, such as dairy products and meat all around the year. Since the crop farms can work only in the short summer time, the crop productions are limited. For instance, many of Finnish crop farms are cultivating berries which can give the harvest in a short time. (Solsten and Meditz 1988, 84-85)

There also some certain vegetable farms too that can give the harvest during the summer, for instance potatoes, cucumber, some herbs and carrots. Since many other vegetables are taking more time to give the yield, it is not possible to grow them on Finnish lands with natural conditions. Therefore, lots of vegetables and fruits are imported to Finland from abroad every year. This means farming import is higher than farming exports in Finland, approximately the imports are almost double than exports. About fruits also the situation is same as vegetable production. However, there are many different types of fruit growing in Finland, for instance many different kinds of berries and apples. As well, Finland has a good production of grains, such as oats, rye and barley. Part of these grains is used for food industry and the other part is used as animal foods. Nowadays, there is a lot of greenhouse business in Finland, and many of them are large. These greenhouses are fulfilling some part of vegetables and fruits demand in the market, but those products are quite expensive since the production costs are quite high. (Ministry of Agriculture and Forestry 2010)

Number of farms in Finland has dropped down since 1960s due to many reasons. One reason is that Finnish farmers started using advanced technology at works, so the works became easier than before. The number of labour force needed for same work before was significantly dropped down since the machines took the place. Therefore, a lot of workers left the countryside and joined other works in the cities. This forced the small farmers who could not afford for heavy machineries to leave the farms due to lack of labour force. As well, the new regulations and tax laws put the pressure on farmers, so the small farms were not profitable anymore. Therefore, a lot of small farms ended the business, so those farms were bought or rented by bigger farms. That is how the number of farms dropped down, but the size of the farms grew bigger and bigger. Nevertheless, the government subsidiaries and

tax reductions on farming items have kept some small farms still running, although they are not making a good profit. Today, the forestry business has become the largest income in agriculture in Finland. Under the forestry business, direct timber sales, paper production and furniture are produced. Finland's contribution to the world forestry business is about 5 % and supplying about 25 % of world's paper need. (Ministry of Agriculture and Forestry 2010; Ministry of Agriculture and Forestry 2008; and Solsten and Meditz 1988, 85-86)

Agriculture is not something easy in Finland, because of the heavy winter and short summer. In the winter season, mostly livestock farms are continuing, but also few crop farms are working under special conditions, such as greenhouses. Due to the climate reason, Finnish crop farms have to rely on quick-ripening and frost-resistant crops. Finland has enough water resources and enough rainfall for farming, but in recent years, there were some shocking droughts which disturbed farming. In some years, the rainfall is very heavy, so such heavy rains are destroying the harvest, such as strawberries and grains. As well, Finnish lands are quite high with excess acid. Therefore, the lands need good treatment to make them arable. Finland has very good lands for farming, such as flat lands and lands close to water resources. That makes some ease of farming. Nevertheless, a lot of arable lands are heavily containing many different sizes of stones, which makes some difficulties in farming. For instance, every year before spreading the seeds or plants on the fields, the stones must be picked and that is really a time-taking hard work. Those bigger size stones are damaging the machines, so the farmers have to spend lots of money on repairing costs of the machines every year. Therefore, there are some obstructions too for the farming business in Finland, like everywhere else in the world. (Solsten and Meditz 1988, 85)

3.1 Finnish Food Industry

As the foods industry is based on agriculture in any country, it is important to describe the Finnish foods industry under the topic of agriculture. Finland has a remarkable foods industry in the EU. Finnish foods industry is very wide which produces a vast range of food items. For instance, it covers the main production lines, such as, meat processing, dairy products, vegetables and fruits related products, grain related products, bakery products, brewery and alcohol and also animal foods. The most part of the raw materials which accounts for approximately 85 % of total need is produced in Finnish farms. (Finnish Food

and Drink Industries' Federation (ETL)) Therefore, most of the Finnish food products are originated from Finnish farms, so the quality and trustworthiness of food items are assured by the authorities. Foods and beverage industry together with farming industry is the fourth biggest industry in Finland, after the metal, forestry and chemical industries. Therefore, it is playing a big role in the economy. Finnish food items have earned the first place of choice in Finnish consumer market. As well, the quality, trustworthiness, innovativeness and the advanced technology of Finnish food industry have created a good reputation in international market too, so they are well-known, especially in the Baltic area and in the EU. (Finnish Food and Drink Industries' Federation)

In 2011, the gross production value of food industry in Finland was 10.2 billion Euros and the exports valued for 1.6 billion Euros, as it can be seen in Figure 1. There are about 32 500 people are directly employed in food industry and about 300 000 people are involved in entire food processing industry. (Finnish Food and Drink Industries' Federation) Due to the demand and development of food industry, Finland is one of the leading countries in the EU which spends more and more on Research and Development (R&D) of food industry.

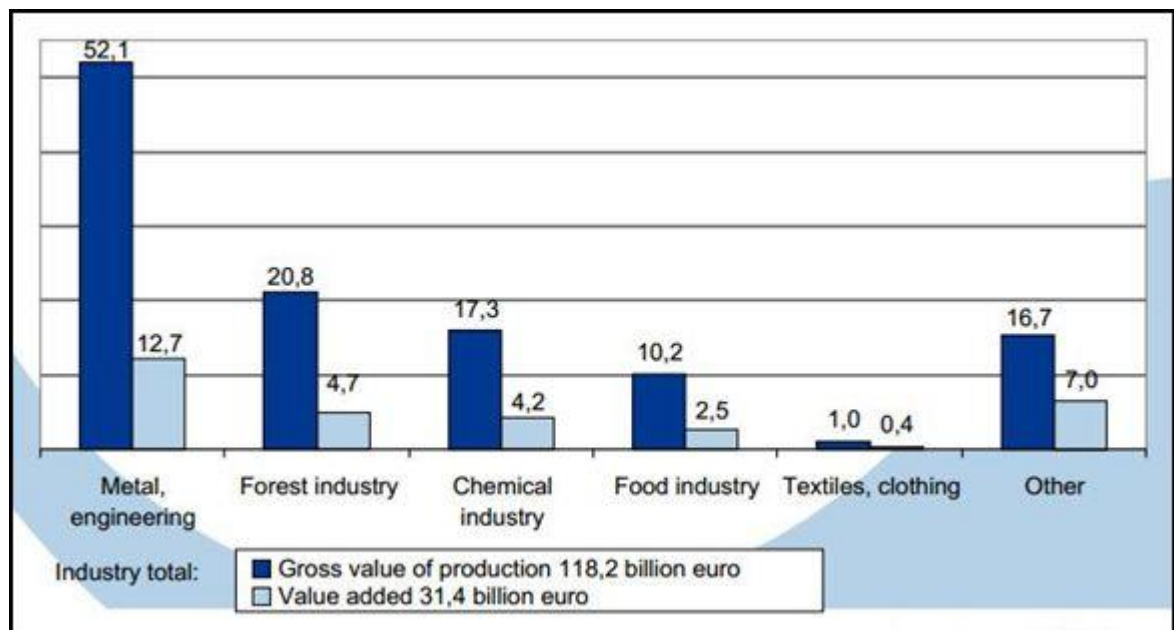


Figure 1. Gross value of production and value added by branch of industry 2010.

(Finnish Food and Drink Industries Federation)

The central idea of Finnish foods industry is to provide safe foods with high quality and healthy. Finnish foods products are containing significantly less pesticides and harmful impurities and chemicals compared to other countries' products. For that, Finnish nature helps a lot, because there are things like clean water, soil and air. As well, the higher level of education and expertise knowledge of Finnish farmers and foods industry workers is helping to keep the standard of Finnish foods. (Ministry of Agriculture and Forestry) Finnish foods industry is a very strong industry in national level. About 80 % of Finnish foods demand is produced in Finland. There are many different size foods producers in Finland, for instance, big/large size companies, medium size companies and small size companies. The most part of the companies are small size companies. However, the most part of the production is done by few large size companies. For example, Valio and Arla Ingman are the two major dairy food items producers, and Atria and HK are two of the main meat processing companies in Finland. These big companies are producing most part of the products which means that about 60-80 % of market share is owned by them. Not only in Finnish market, but also these big companies have a reasonable market share in some global markets too, especially in Baltic market area, Russia and Sweden. (Karjalainen 2011, 33-34; and Finnish Food and Drink Industries' Federation)

Although Finnish foods industry is a strong and stable industry in national level, in international level it has a huge competition. The main reason for this is the price. For instance, in Finland the raw material costs and labour force costs are higher compared to many other countries in the region. At the same time, some other countries are producing the same food item using cheaper raw materials and cheaper labour force. Therefore, the Finnish product is slightly expensive. As well, although the Finnish farmers are producing the most part of the raw materials for the foods industry, there are some raw materials that have to be imported from outside. For instance, some grains such as rice, some fruits and vegetables are imported from outside of Europe to Finland. Part of these is imported for direct consuming and the other part to use as raw materials. This makes the final product more expensive. (Kallio et al. 2002; and Ministry of Agriculture and Forestry 2008)

Moreover, the climate in Finland also causes some problems in foods industry. For example, the long winter time effects on the price of raw materials, because the raw materials can be produced naturally only in the short summer time. In the winter time, the raw material

production is done under some special conditions, such as keeping animals inside with heated environment and growing crops inside greenhouses. As well, the raw materials also have to be stored in special stores for many months, so that they can be used during the winter time. These special situations such as increased energy consumption and storing costs are adding more costs for the final product. As well, there are many regulations like safety, health and environment protection that have to be followed by foods processing companies. At the end, when all of the costs are added to the final product, the price in the market will be higher than imported competitive products. Therefore, the Finnish foods industry is facing some problems by competitors in local and global market. However, still the Finnish foods industry owns the largest part of the local market, and it is also having a remarkable place in some international markets, like Russia, Sweden and Baltic area. The severe cold climate condition is also beneficial in some ways. For instance, it keeps the pests under control, so the need of pesticides is minimised. As well, plant and animal deceases are naturally controlled by cold conditions. (Kallio et al. 2002; Ministry of Agriculture and Forestry 2008; and Solsten and Meditz 1988, 85)

3.2 Farming in Finland

Farming is the fourth biggest industry in Finland. It is also one of the most widespread activities in Finland. Therefore, it is a major player in Finnish economy. Although Finland has only about 8 % area of arable lands in whole country, there are many thousands of farms widely spread around the country. In 2010, there were about 2.28 million hectares of land under cultivation. The average size of a farm was about 36.5 hectares. (The Central Union of Agricultural Producers and Forest Owners) Farming is various in Finland. Livestock farming, crops farming including cereal and horticulture farming and fish farming and are some examples. Livestock farming is done all the year round, so the livestock farming related products can be bought from the market for almost same price throughout the year. Livestock farms are rearing or raising animals. The main livestock production consists of cattle, pig, poultry, sheep, reindeer and horses, to name a few. They are used, for example, for dairy production, meat processing, eggs, wool, and hobbies like horse racing. Some livestock farms are small and some of them are very large like the ranches in the United States. (The Central Union of Agricultural Producers and Forest Owners)

Dairy farming is commonly a profitable form of farming in Finland. Therefore, about 18 % of farms are involved in dairy husbandry. Dairy farming is the second largest production in Finland, and in 2010, the production output was 17.93 % of whole country's farming production. Crop farming is mainly done during the summer only, so the price of the products depends on the time of the year. There are also some special crop farms which are working during the other seasons too, such as greenhouses, but they are not as common as the open land farms. Finnish crop farms grow, for example, cereals, vegetables, fruits, potatoes, other roots, corn, legumes and herbs. The biggest part of farming in Finland is cereal farming. In 2010, it accounted for 43.65 % of whole country's farming production. There are many different kinds of cereals grown in Finland, such as barley, oats, rye, rapeseeds and wheat. (The Central Union of Agricultural Producers and Forest Owners)

Horticulture is also giving a reasonable contribution to the farming production in Finland. In 2010, the production was about 3 % of whole country's farming production. Horticulture includes berries, vegetables, herbs, fruits, mushrooms and flowers, and they can be cultivated both in open field and in greenhouses. Berries are one of the main parts in horticultural production, and between berries also, strawberry is leading in production amount. After strawberry, black, red and white currant and raspberry are having a good yield annually. The vegetable farms also have a good amount of yield every year. Fruits and flower production is not as good as berry and vegetable production in Finland. Therefore, a lot of fruits and flowers in the market are imported ones. In 2011, almost all kinds of horticultural production hit records of yield, while having a decrease in the amount of enterprises involved and area of cultivated land. (Tike 2012c) There is also dry hay production in Finland as a part of farming. Dry hay is used for feeding animals during the time which the grass is not growing naturally, especially in the long winters. As well, there are some fish farms in Finland, such as sturgeon farms. Although about 9 % of land area is covered by lakes and rivers and there is a long coastal area in Finland, fishing is not a major industry or major source of foods and employment. (Solsten and Meditz 1988, 84) Figure 2 shows the different agricultural productions in Finnish farms in 2007. Plant production is the largest part as it covers nearly two thirds of whole production. The amount of dairy production is about 20 %, and livestock farming has approximately 10 %.

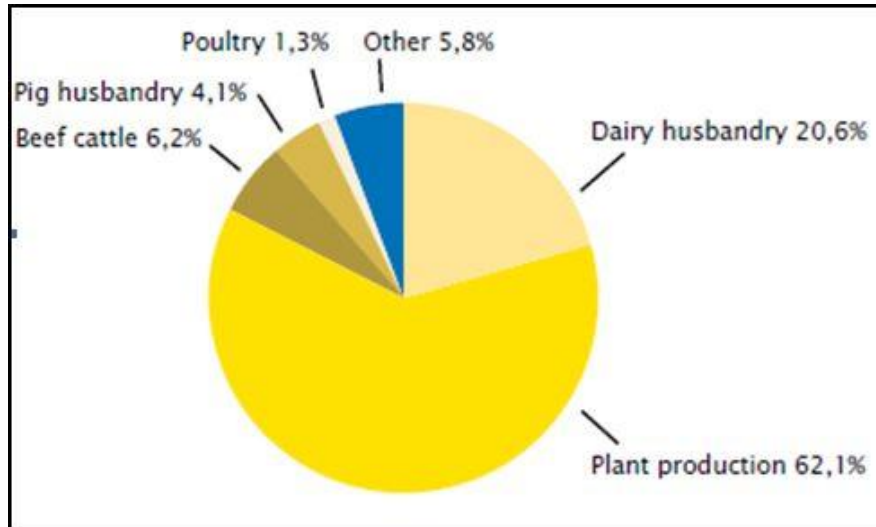


Figure 2. Production structure of Finnish farms. (Ministry of Agriculture and Forestry 2008)

The climate has a lot of impacts on the location of crop farming in Finland. For example, wheat and oil-seeds farming are restricted in the southern part of the country, while barley, oats, grass and potatoes can be cultivated in all parts of the country (The Central Union of Agricultural Producers and Forest Owners). The area of the country also sometimes affects the type of farming. For instance, reindeer farms can be seen only in the northern areas of the country. In addition to this, the northern part of the country has more forest lands than arable lands. The arable lands are more common in southern and western parts of the country. There are reasons for this, such as the climate, and transport costs. The climate in the north is different from the south. For instance, the summer is longer in the south than in the north, so the crops have enough time to grow in the southern part. The average growing season in the southern part of the country is about 170 days while in the northern part it is about 100 days (The Central Union of Agricultural Producers and Forest Owners). The differences in the length of the growing season are shown below in figure 3. As well, the transport of products from north to south is expensive and it takes a long time.

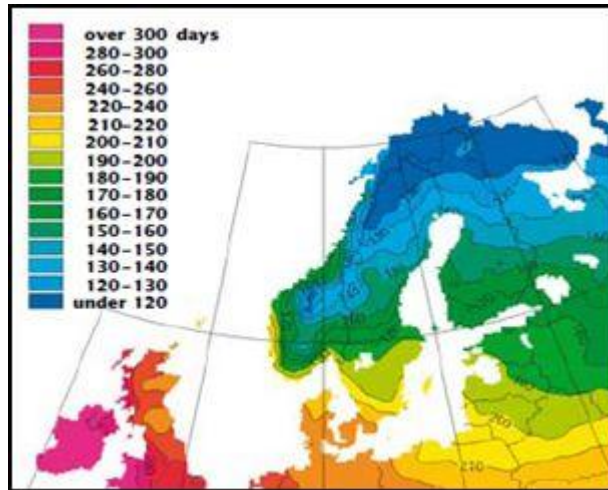


Figure 3. The average length of the growing season. (Ministry of Agriculture and Forestry 2008)

Finland has enough water resources for its farming, but there were some droughts in recent summers. Furthermore, Finnish lands have in them quite much stones and rocks, which disturb the farming. Moreover, late spring and early autumn frost also have some impacts on farming, so the farmers prefer to grow quick-ripening and frost-resistant varieties in crops in response to above climate conditions. Many different types of berries are some of the most suitable for such climate situations, so there are lots of berry farms around Finland. Farming in Finland provides a great opportunity to the country to be self sufficient in foods. Some farms have only one type of crop, while some other farms have combined crop and animal farms. Most of the farmers use new technology and methods for farming. The animals used in livestock farming are comparatively healthy and plant diseases are well under control in Finland, which provides a good trust in end users. (Ministry of Agriculture and Forestry 2008)

Every year, the number of small sized farms is decreasing in Finland. In 1995, about 95 600 farms applied for the agricultural support, but in 2010, it was about 62 500. Those abandoned farms are rented by others, so the average size of farms is increasing. In 2010, about one third of Finnish arable lands were rented. The average age of a Finnish farmer is 51 years old. (The Central Union of Agricultural Producers and Forest Owners) This means the young generation is not much interested in farming, so they are moving to the bigger cities because of work in some other fields instead of farming. This situation also creates a shortage of skilful farm workers. Finally, it leads the farmers to give up the farm, especially

small sized farms. In 1991, nearly 40 000 farms were involved in dairy husbandry, but ten years later the number of farms had dropped down to 11 000. Some farmers give up the farms and turn the arable lands to forest lands. Most of the farms have forest as part of the farm. Average Finnish farm has about 50 hectares of forest land. (The Central Union of Agricultural Producers and Forest Owners)

3.3 Farming in North Karelia

Farming is one of the main industries in North Karelia too. It is one of the main sources of employment in North Karelian countryside. It also gives a reasonable contribution to the Finnish farming and foods industry. As same as most other areas in Finland, this region also contains a large area of forest lands. North Karelian farms are mainly involved in crop cultivation and dairy production. Unlike southern or western Finland, North Karelian farms have mainly dairy production. There also a good amount of crop production, such as cereals and other plant products. In 2010 statistics shows that the amount of dairy milk production is about 29.56 % of whole region farming production. That is almost one third of the region's farming output. At the same time, the whole country's milk production as a percentage of whole country's farming output was only 17.93 %. This clearly shows North Karelian farmers' higher concentration on Dairy farming. Anyhow, the North Karelian dairy milk output is quite low compared to many other regions, and it is only about 6 % as a percentage of whole country. (Tike 2012a)

Table 2 below shows the amount of farms in North Karelia per each production. Also the percent shares are shown in the table. In 2011 dairy farms created the largest group of North Karelian farms as nearly 30 % of farms involved in dairy production. Cereal farms covered more than 20 % of the farms, whereas livestock production was less than that. Horticultural farms formed the smallest group as they amounted only 4 % of all farms. Totally, there were 2 591 farms in North Karelia in 2011.

Table 2. Amount of North Karelian farms per production in 2011. (Tike 2012a)

	Dairy Farms	Livestock Farms	Cereal Farms	Horticultural Farms	Other Farms	Total
Amount of Farms	766	454	555	112	704	2591
Percentage (%)	29.56	17.52	21.42	4.32	27.17	100

Figure 4 shows the share of agricultural land, forest and other land in different regions in Finland. North Karelia's share is one of the smallest. Only Åland, Lapland, Kainuu and South Savo have less agricultural and horticultural land area than North Karelia.

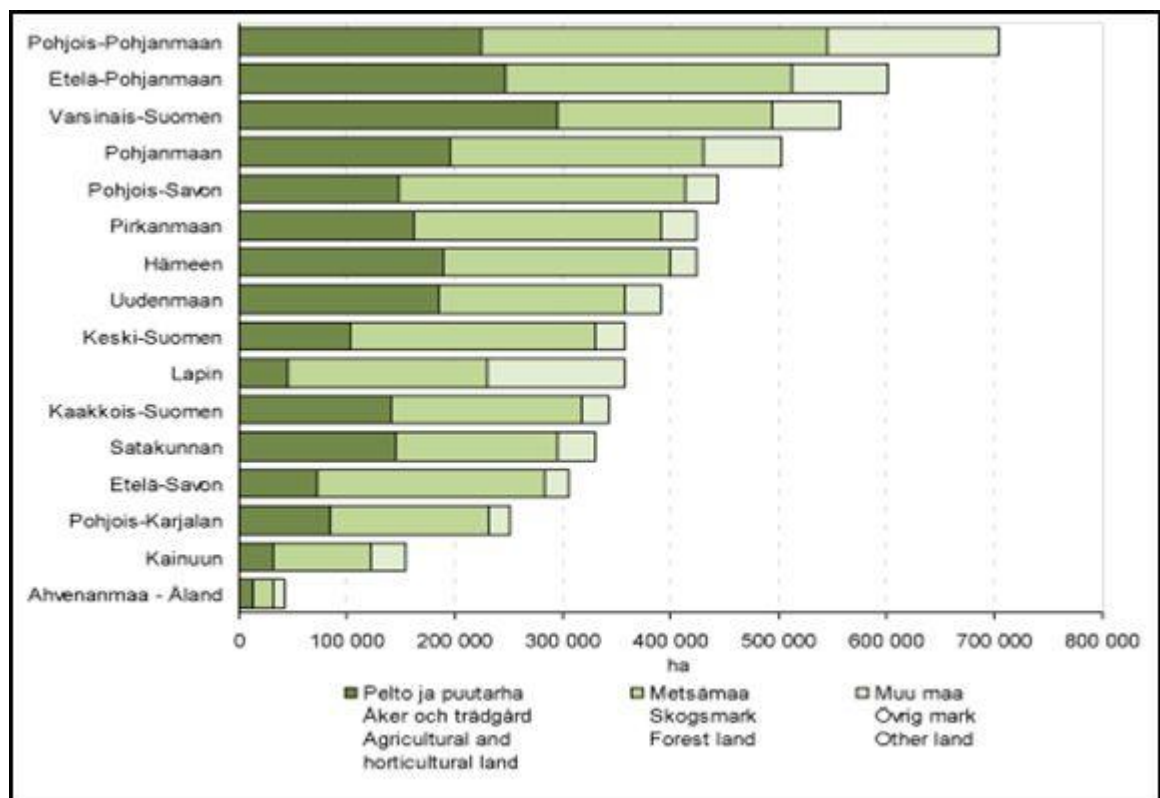


Figure 4. Share of agricultural land, forest and other land in different regions in Finland. (Tike 2011)

3.4 Horticulture

Finland has good opportunities for safe horticultural production due to the clean environment. As the main objective in Finnish foodstuffs production is to produce clean and healthy food, the use of fertilisers and pesticides, for instance, has been strongly limited to ensure to safety and quality of the foods. The cold climate in Finland restricts the cultivation of certain horticultural products, since the length of the growing season is only 110-180 days depending on whether the farm is located in North or South. This fact has also a good impact. As the climate is cool and growing season not so long, the risk for pests is smaller. This leads to the minimised need for pesticides, which means that the production is even safer. (Ministry of Agriculture and Forestry)

According to Ministry of Agriculture and Forestry (Horticulture in Finland) the average Finn consumes annually 50-60 kilograms of fresh vegetables and ten kilograms of berries. This means that the total Finnish consumption is 250 million kilograms of vegetables and 50 million kilograms of berries. The Finnish horticultural production is less than that, which means that there could be an opportunity for Finnish producers to cultivate more vegetables and fruits to compete with the imported ones. In the late 1990s the Finnish vegetables cultivation area amounted nearly 9 000 hectares with the harvest of 150 million kilograms. At the time, strawberry, which is Finns' favourite, gave the harvest of nine million kilograms. In 2011, the horticultural cultivation area was about 17 000 hectares. The share of vegetables was 9 000 hectares, while berries and fruits were cultivated in the area of 6 000 hectares. The rest of the amount contains small production like flowers. (Ministry of Agriculture and Forestry; and Tike 2012a)

Figure 5 shows the development in amounts of horticultural enterprises and cultivated areas in 1986-2011. From the mid-1980s the area under horticultural cultivation was growing until it reached the top in 1996. In 2011 the cultivated area is only about 2 000 hectares smaller than in 1996. Nevertheless, the amount of producers has steadily decreased since 1995 when they were around 10 000 enterprises down to 4 000 producers in 2011. This means that as some enterprises has quit production, other farms have bought the land. Therefore the size of horticultural farms has grown in average so that a farm in 2011 has doubled the amount of cultivated area compared to a farm 15 years earlier.

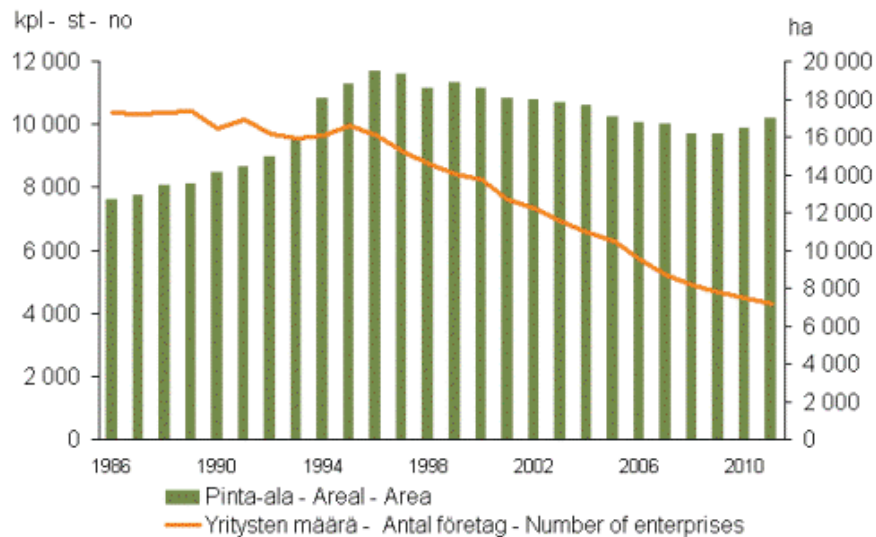


Figure 5. Amount of horticultural enterprises and cultivated area in 1986-2011. (Tike 2012b)

If the trend shown in figure 5 continues, in future there will be fewer producers that cultivate even larger areas of horticultural production. This leads to situation where fewer people can have control of the local markets. In addition to that, larger units normally require more chemicals, because it is not possible to weed so large areas, and pests can easily spread around.

Figure 6 indicates the changes in vegetable cultivation area and yield in 1986-2011. The growing area of vegetables is about 2 000 hectares larger in 2011 than in 1986. In the late 1990s there was a small peak in vegetable cultivation. The yield of vegetables has been quite unstable, for instance in 1987 and 1998 there were large drops in yield compared to previous year. One reason can be weather conditions that affect the amount of yield in open land cultivation greatly.

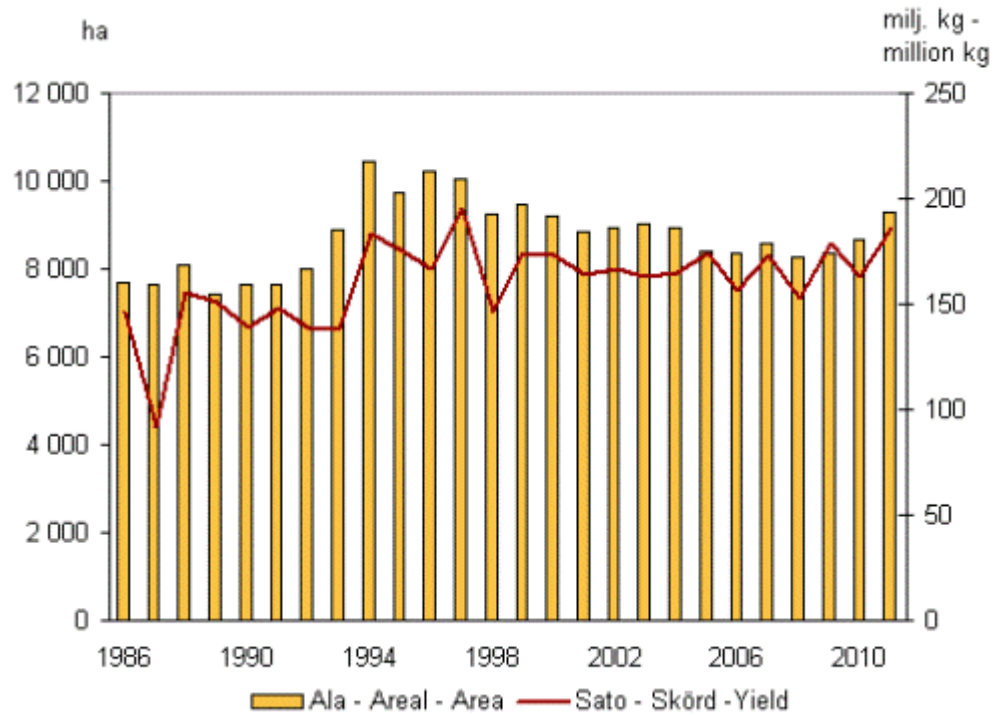


Figure 6. Amount of vegetable cultivation area and yield in 1986-2011 . (Tike 2012b)

Figure 7 shows that the yield of berries has been very unstable, even more than with vegetables. The production area grew from 1986 until late 1990s, and there was a significant rise in production area in 1995, when Finland joined the EU. The area had doubled in ten years. All through the 21st century, the area of cultivation of berries has decreased slowly, and in 2011 it has been lowered nearly to same amount which it was just before Finland joined the EU.

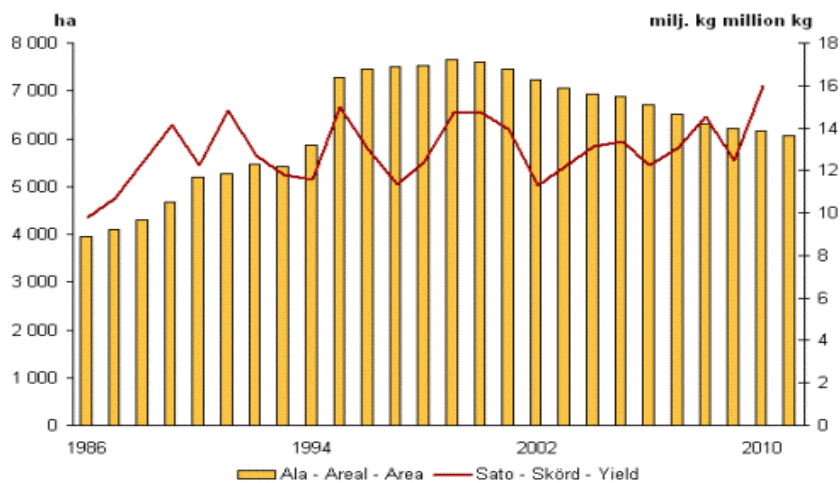


Figure 7. Amount of berry production area and yield in 1986-2011. (Tike 2012b)

Figures 6 and 7 show clearly how uncertain a good harvest of berries and vegetables can be. Especially wet summers can be difficult since in moist conditions berries and vegetables are easily getting spoiled. As fruits are not very likely to succeed up in North Karelia, they are not described here as part of horticulture.

4 MARKETING AND ENVIRONMENT ANALYSIS

Marketing of a product starts even before the actual production begins. The management will try to find out the answers for some questions, such as if there is any need for a product and what it is, how much is needed, where it is needed and how to market them. To find the answers, the management has to do Research and Development (R&D) programme, which is a part of marketing. Marketing is playing one of the most important roles in a business. “Marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and values with others” (Kotler et al. 2002, 5). Simply it can be explained as the whole process between the producer and a customer or an end-user. This includes plans, R&D, production of goods or services, price, promotion, creation of customer relationship, distribution and satisfying the customer wants and needs while meeting the organisational goals. Goods and services are sold in the market. Market is a set of all actual and potential buyers of a product or service. There are many actors and forces in a modern marketing system, such as the company, suppliers, competitors, marketing intermediates and end-users. These are called the microenvironment of a business, which means the forces close to the company which affects its ability to serve the customers. All of these microenvironment actors are affected by the macroenvironment forces like economical, technological, physical, political/legal, social/cultural and demographical factors. Macroenvironment means the larger forces which could affect the whole micro environment actors. (Kotler et al. 2002, 118ff.)

Marketing mix is a major part of marketing. Under the marketing mix, the 4Ps which are called product, place, price and promotion are considered. It is important for the organisation to choose the right product or service at the right place or time with a right price, and do right promotion to reach the customer. This explains the whole process of bringing a product or service to the market. There are many ways of marketing a product or service. They are called marketing methods. For instance, advertising, emailing, internet and websites, directories, leaflets and brochures, door to door marketing, and word of mouth are to name a few. It is very important to choose the right marketing methods to market the product, because it saves money and time, and it also will reach the market well. It is also important to choose the right form of sales. There are many ways of selling the product or service, such

as personal selling, hawking, cold calling, business to business selling (B2B), business to consumer selling (B2C) and wholesale selling. (Chapman 2012)

4.1 Customer Relationship Management

“Customer Relationship Management (CRM) systems are IT-based applications that integrate a company’s information about customers with the knowledge of how to use that information” (Kotler et al. 2002, 409). This shows that the internet has a good influence of marketing in today’s business. CRM is a business strategy which helps the company to reduce costs and increase profitability by creating satisfied and loyal customers. CRM is an essential part of business. It shares necessary internal data with customer, so the customer will be aware of the organisational structure in some way, for instance of sales, marketing, customer service and products (Destination CRM 2010). CRM creates a positive feeling about each other between the organisation and customers. When making a relationship, both the organisation and customers have expectations. The organisation wishes profit, survival, growth of market share, referrals to new customers and reduced costs, wastage and complaints, just to name a few. The customers wish, for instance, high quality products and services, good after sales service and affordable price, good location, health and safety support, flexibility and loyalty of contract and troubleshooting and problem solving. (Destination CRM 2010)

People involved in CRM should have some special characteristics, such as good communication skills, people orientation, organisational and analytical skills, and positive attitude. Communication skills are essential to make a successful relationship. Communication should happen on time with relevant, reliable, and coherent information, and it should be focused. CRM consists of some outstanding characteristics, for example, reliability, responsiveness, safety, recognising the customer, and competence. CRM will help the organisation to understand the want and need of customers, to know which products or services and customers are the most favourable. In addition to this, it will help the organisation to recognise the most profitable and least profitable products or services and customers. Therefore, CRM is an essential part of business. (Destination CRM 2010)

4.2 SWOT Analysis

“SWOT analysis draws the critical strengths, weaknesses, opportunities and threats (SWOT) from the strategic audit” (Kotler et al. 2002, 81). SWOT analysis involves monitoring and measuring the internal and external factors which a business has to face. The external environments are opportunities and threats and the internal environments are strengths and weaknesses of the firm. Monitoring the business environment and analysing them to understand the problems is an essential part of a sustainable business. It is important to analyse these environments in the end of each year and categorise them from most to least. After this, the management should develop a set of goals with specific time periods to gain the advantage of opportunities and strengths, and to find solutions for weaknesses and threats. Therefore, it will help the business to have a good start for the following year. (Kotler and Keller 2006, 51-55)

The external environment has two different parts, which are called microenvironment and macroenvironment. Microenvironment actors are, for example, customers, competitors, dealers, and suppliers. Macroenvironment actors are, for instance, economic climate, political situation, natural and technological factors and demographic changes. The management has to identify the main external environment actors, because the changes or effects of these actors can decide the profitability of the business. Analysing these factors will provide important developments that will have an impact on firm's future business. The opportunities are favourable for the company, so the management should try to increase the advantages of opportunities. The threats are unfavourable for the firm which can cause damages for the profit or sales. Therefore, the threats should be categorised according to the seriousness and make a plan in advance to face them. (Kotler and Keller 2006, 51-55)

The internal environment consists of strengths and weaknesses of the company. Strengths and weaknesses are the success factors of a firm, because they are within the control of the owners of business. The internal environment factors are relative, but not absolute. Strengths are very favourable for the firm, but sometimes they can be unfavourable. For instance, if a firm is the market leader in quality, but the price is higher, the customers will be attracted mostly by the quality. Nevertheless, if the competitors are trying to keep a cheaper price with a bit lower quality, some part of those customers can be changed by the cheaper price. The

internal environment actors can be, for example, company reputation, brand name, market share, geographical location, price, quality, financial stability, and facilities. (Kotler et al. 2002, 84-85)

5 DEVELOPMENT OPTIONS IN PRODUCTS, SERVICES, MARKETING AND CUSTOMER SERVICE FOR KETTULAN TILA

This chapter contains the empirical part of the research. The research problems which are described in detail in chapter 2.1 (Research Aim and Problems) are answered here. The main research question asks for profitable development options for Kettulan Tila in 2012-2014. The development options are related to three areas, which are products and services, marketing methods, and customer service. The research material consists of 12 qualitative interviews and statistics from Information Centre of the Ministry of Agriculture and Forestry, and Kasvistieto oy. The interviewees are two Kettulan Tila customers, Kettulan Tila's current farmer, and previous farmer with the experience in dairy husbandry, as well as a mixed crop and livestock farmer with experience in organic production. The group of experts consists of two experts from the Central Union of Agricultural Producers and Forest Owners (MTK) with expertise in crop production; one project management and crop farming expert and another organic production expert from ProAgria; an expert on berry cultivation from Fruit and Berry Producers' Union; and two already retired experts on crop cultivation. The Statistics include data on amounts of farms, production area, yield, and producer price. The material is explained thoroughly in chapter 2.2 (Materials and Method). Most of the experts have broad knowledge about crop production, and only one has special expertise in horticulture and berry farming. As it was not possible to get experts on vegetables and other horticultural production to take part in the research, it may affect the results. The interview questions for all groups, experts, farmers and customers, are found in Appendix 1, Appendix 2, and Appendix 3, respectively.

The analysing of the interviews is divided into three parts. These subchapters are called Development Options in Products and Services (6.1), Development Options in Marketing (6.2), and Development Options in Customer Service (6.3). The reason for this is the division of research question in similar sub questions. Furthermore, in chapter 6.4 the statistics taken into the research are analysed. When appropriate, the reporting in the empirical part is supported by examples which arise from the research material. After each example, it is indicated within brackets whether the interviewee is a customer, an expert or a farmer. The examples arisen from interviews are written in the original form. Therefore there

can be grammar mistakes or the language may otherwise not follow the rules of academic English, for which the author is not responsible. Finally, chapter 6.5 will conclude the most important and the most suitable development options for Kettulan Tila.

5.1 Development Options in Products and Services

There are many different products and services offered by Finnish farms. In North Karelia, products and services are quite similar. The only restricting factor on what cannot be produced in North Karelia compared to southern Finland is the shorter growing period. This affects the choice of cultivars in North Karelia. Example (1) below shows why everything cannot be grown in North Karelia. Even some plants, especially fruits, are not being so successful in North Karelia.

(1) [...] *need to consider local conditions when choosing cultivars.* (Interview, Expert)

Choice of cultivars is not the only factor which needs to be taken into consideration when choosing what to grow on the farm, but it is the factor which sets the limits for all possible production. In fact, there are many factors that need careful examining when a farm wants to find out all the different development options, and then choose the most suitable ones. These factors include, for instance, market situation, cost efficiency, and product development options.

In North Karelian crop farms, there are many different kinds of products and all these products have different kind of market situation. Cereal production, such as barley and oats, and hay production have very different market situation from berries and vegetables. Example (2) indicates that the size of the market for berries and vegetables is larger compared to cereals. This creates a favourable situation for horticultural farms as they can set higher prices for their products and get more profit from their production. Different berries have also differences in their market situation. For example, raspberries do not have large market share in North Karelia, which can be seen in example (3). One reason for this can be that there are wild raspberries grown in the region, so people do not wish to buy raspberries if they have the possibility to pick berries free. Strawberries have better market situation, especially close to towns (see example (4)). Strawberry is the most important berry

for Finns. In 2011, total berry production was 16 million kilograms, of which the share of strawberry was 13 million kilograms (Tike 2012a). Different currants, such as black currants and green currants, have lower market price than strawberries and raspberries. They are suitable for mechanised picking, which is actually the only option if there should be profit by the yield. In order to cover the machinery costs, the production area needs to be large, even up to 20 hectares (see example (5)). Protein crops which include oilseeds, peas and faba bean would be needed more in the market. In addition to protein crops, there is a lack of some cereals like rye and wheat for food industry. The production is not growing, because farmers may consider the risks too high. Examples (6) and (7) show this. Forage grasses are also produced in North Karelia. This research does not show that there would be lack of grass, as indicated in example (8).

(2) *Berries and vegetables are more profitable than cereals, because the market price is better and bigger markets.* (Interview, Expert)

(3) *The marketing of raspberries through self-picking is possible on a very small scale in North Karelia.* (Interview, Expert)

(4) *The strawberry is a little easier, [...] self-picking is best suitable for berry farms in the nearest vicinity of towns or bigger municipality centres.*
(Interview, Expert)

(5) *In currant production for processing industry, the acreage should be at least 20-30 hectares in order for mechanized picking to be feasible.*
(Interview, Expert)

(6) [In future in Finland there will be need for] *conventional and organic protein crops, e.g. oilseeds, green peas and faba bean.* (Interview, Expert)

(7) *Lack of rye and wheat for food industry. Cultivation for food industry is more insecure than cultivation for animal foods. If support would be greater, it would encourage farmers to grow more of them.* (Interview, Expert)

(8) *All farms that have shut down production are producing hay and messing the market.* (Interview, Farmer)

As the examples above show, horticultural production is one good development option for Kettulan Tila. The choice of products must be based on careful research, not only market situation. According to the market situation and the size of Kettulan Tila fields, it is not good to choose currants as they have low market price and need very large production area.

Kettulan Tila has 25 hectares of fields, and currant production would require at least 20 hectares share. As almost all the available land would be under currant production, it is not a very safe choice, because the whole income would depend on one kind of production only. Kettulan Tila already has strawberry production, and it would be good to reconsider increasing the production area. It is also worth thinking if a small raspberry production area could be started. When it comes to other crop production, there is no need to increase hay production. Kettulan Tila produces hay for horses, and it may be good to reconsider decreasing the production area. As there is lack of cereals for food industry as well as protein crops, they could be good options, but especially cereals have the risk of unsuccessful yield. Therefore, other factors affecting profitability, not only the market situation must be taken into account when making decisions on what to grow in Kettulan Tila.

Cost efficiency is another important factor affecting what is chosen to be grown on farms. It includes, for instance, level of harvest, machinery, activities, market intelligence, and fixed costs. According to one expert, level of harvest is the most important part affecting cost efficiency. This is indicated in example (9). The second matter means that the size of machineries should fit the production. For instance, the large areas it is good to use large machines, because it will save time and it is possible to get the investment on the bigger machines profitable in shorter time. On the other hand, too small machines waste the producer's time, and too large machines can be difficult to get profitable due to small production. Next, the activities related to the production need to be completed on time, neither too early nor too late. For instance, the plants need to be planted in good time so that they will not get cold in the spring nights, and that they will give yield before the growing season is over. In addition to these, the condition of the field and the plants need to be checked regularly during the growing season. The reason for this is that there can grow weeds or plants can get pests, so there will be a need for plant protection products, either against weeds or pests. In horticultural production it is possible to remove weeds by picking them, so that the use of chemicals can be avoided. Fourthly, market intelligence increases cost efficiency. When the farmer follows the changes in the market, he/she can lead his/her production at the direction where there will be more profit. For example, the selling of the products will be difficult, like in example (10), if the farmer does not understand the meaning and importance of market research. He/she will just cultivate something without thinking where to sell the products when the yield is there. One of the least effecting matters

on cost efficiency is fixed costs. As the fixed costs remain the same although the amount of production would increase or decrease, they are playing a major role in affecting cost efficiency compared to the other, earlier mentioned matters that actually vary according to the amount of production.

(9) *The level of yield is the most important. It doesn't matter what you grow if you don't make the yield successful.* (Interview, Expert)

(10) *Let's just cultivate and then think what we should do with the yield.*
(Interview, Expert)

Kettulan Tila needs to take the matters affecting cost efficiency into careful consideration. The farm has to check that it does all the necessary actions in order to maximise the amount of yield. For instance, the pH level should be suitable for the plant, and liming of the soil should ensure the appropriate pH level. Furthermore, Kettulan Tila has all the essential machines for grass and cereal cultivation. If the farm increases the area of horticultural production, it will be necessary to think whether it should buy its own machines, use machinery services of others or buy the machines together with some other farm which is involved in horticulture. In addition to these cost efficiency affecting matters, the farm must create annually a plan where all the necessary activities for the growing season are described. The plan will help also if the farm will get under a surveillance visit by the authorities, because then all the activities must be explained. Next, Kettulan Tila has to follow the markets and decide which products are needed and which have overproduction. If possible, one good option is to make contracts already before cultivation. When there is a contract, the farmer will know that she can sell the yield, so there is no risk that there would not be any buyer for the products. Finally, the farm needs to make sure that the production is at the most optimal level so that the fixed costs will not take a major share of the important matters affecting cost efficiency of the farm products, and there through affect the profitability of the production.

There are also many other factors and opportunities that may affect when the farmer chooses the plants for the production. These include possibility for product processing, and cooperation with other farms or companies. In horticultural production, it is common that the part of yield which cannot be sold for any reason as fresh products will be processed. For instance, berries can be processed into juices, jams or berry seed powder, and vegetables can

be freshly frozen or pickled. In cereal and protein crop production, a lot of the yield for food industry must be processed. For instance, grains like wheat and rye can be grinded into flour. In horticultural production the food processing can take place on the farm, but in other production lines, it usually takes place somewhere else. Secondly, the opportunity for cooperation with other farms can have good impact on the profitability. As the farms do not compete against each other but cooperate, they can get better prices from the market. As well, crop farms and livestock farms can cooperate in a way that the crop farm will produce forage for the livestock farm. This would lower the transport costs if the two farms are located near each other. It is also possible to cooperate with companies not related to agriculture. For instance, in a marketing project, it would be possible to agree with another company that the customers that buy farm products with certain amount of money would get a gift card to the other company.

When applying the opportunities of food processing and cooperation with other farms and companies to Kettulan Tila, the following statements can be made. The farm's current production related to cereals and grass is for forage, so there is no need for processing. The strawberries which are not sold fresh are either frozen or processed into juice and jam. If the farm should increase horticultural production, it would be natural to process the extra yield in the way the current products are processed. The possibility for food processing increases the attraction for horticultural products. Furthermore, Kettulan Tila can cooperate with other farms which are located in the neighbourhood. There is already cooperation with one farm since that farm is buying hay for sheep and horses. It would also be possible to buy some horticultural machines together with some other farm. In addition to that, the farm could find some local company for cooperation in the marketing sense. To give a gift card to a popular company for the customers who will buy farm products would attract new customers to use Kettulan Tila's products. It would also make the farm known to the people, and therefore also to the potential customers.

Pricing, quality, investments and marketing can also affect the choices what to cultivate. Pricing and quality are closely related to each other since products of higher quality can have higher price. Market situation and competition may lower the price, but the producer can have other matters like quality and additional services that may keep the price higher and guarantee better profits. Keeping the level of quality as high as possible will help to keep

customers returning even in economically more unstable times, and also when competitors are offering cheaper products. When the yield is large, the quality good, and the producer has a possibility to store some of the yield, he/she may get better price for his/her products. The reason is that he/she can store the products and sell them later when the market price is higher. In example (11), too low prices lead to unprofitable business, which will finally end the business totally. Another factor which effects on what is good to grow is the need for investments. When changing production and starting totally new kind of production, it requires investments. Sometimes investments can be expensive, and it depends on the production. For instance, in horticulture some berry plants can cost even more than ten Euros per plant, and as the plant density may need to be some thousands of plants per hectare, only the plant purchasing costs may be over 10 000 Euros per hectare. Then, there will be machinery costs, possible plant protection costs and picking costs. Therefore the starting up costs of berry production can be really high, and the production needs to be continued several years before the costs can be covered. This is shown also in example (12).

(11) Setting a price for a service must be well designed so that it will be profitable. E.g. if machine works are too cheap, it will be unprofitable and not long-lasting. (Interview, Expert)

(12) When changing production, need to invest and therefore need to continue production many years to get the investments profitable. (Interview, Expert)

Kettulan Tila's opportunities for appropriate prices and quality, profitable investments and inspired marketing are various. The quality of hay production is very high. It is the result from long experience in hay producing business by the previous farmers. High quality production in other fields, especially horticultural production, should be ensured by suitable activities. Kettulan Tila has opportunity, for instance, to store hay and freeze berries, so it is possible to wait if the market prices are not satisfactory during the growing season. The storing increases costs, so it must be well planned that it will be more profitable than selling with lower price during the growing season. Furthermore, as Kettulan Tila is considering which plants to grow on the farm, it is necessary to count the amount of needed investments. Horticultural production needs large investments in the beginning, so it is not possible for Kettulan Tila to start growing many hectares of berries at the same time. Therefore careful plans for gradual planting of berries are needed.

Organic production is growing and there is a certain demand for it in the market (see example (13)). Consumers may relate organic production to health products, which are good for human, like in example (14). Nevertheless, the fact that organic products are significantly more expensive than the production of conventional farming can be one reason why some people just cannot afford for them (see example (15)). However, the main risk in organic production is the production itself. There are many plant diseases that may harm the production as discussed in example (16).

(13) *Organic production could reach this year 20 % of all production area.*

(Interview, Expert)

(14) *They are healthier and tastier.* (Interview, Customer)

(15) *As a student price sets its own limits. Organic production e.g. is pricey.*

(Interview, Customer)

(16) *In organic strawberry production the main problem is production, not marketing. Plant diseases and pests are a bigger problem in organic production because prevention methods are not as effective.* (Interview,

Expert)

Kettulan Tila is a conventional farm. Organic production could be an option due to the good market situation. Nevertheless, the risks for plant diseases and lowered yield are high. It is possible to be a conventional farm and advertise the berries, for instance, chemical-free, if there are no plant protection products used for cultivation. Kettulan Tila picks weeds by hand, and there has not been any need for use of other plant protection products as the plants so far have not been affected by any diseases. Therefore the farm has the opportunity to attract health-orientated customers, since the production is similar to organic products, but it is cheaper.

In North Karelia, farms offer many kinds of services, for instance, horseback riding, machine works, accommodation and tourist services, cottage lending, catering, bookkeeping and cultivation planning services. The research does not show whether there are too many farms offering the same services or if there is lack of something. As well, the profitability of these services is unknown. Kettulan Tila has offered horseback riding and other horse related services like transport and breeding, but the farm will quit offering horse services in 2012. The farm has also offered machine works on small scale. It can be better for the farm to

concentrate first on the production and later consider whether there is time and possibility to offer some services, too.

5.2 Development Options in Marketing

Farms in North Karelia are using similar marketing methods like in Finland in general. Different marketing channels may vary according to the production. For instance, newspaper ads may be more common for berry farms than protein crop farms. The marketing methods include contract production, cooperation and networking, direct marketing, newspapers, television, radio, leaflets and brochures, and internet. All the different marketing options are discussed first, and at the end there will be a separate paragraph discussing Kettulan Tila's marketing opportunities.

Contract production, cooperation and networking are suitable for all kinds of farms. Contract production is safe in the sense that the buyer is known already before the cultivation is begun. Therefore there is no risk that the yield could not be sold or that the price would not be satisfactory, because that is solved and agreed upon in advance. Cooperation and networking between different farms and also other companies and organisations is an option. When farms cooperate and create good networks, costs can be minimised as the farms do not compete against each other and try to attract customers by lowering prices and risking the profits. It is also possible to have networks to companies not related to farming field. For instance, it is possible to offer berries and vegetables for local restaurants.

Internet and the traditional marketing media as well are suitable for many farms. People spend so much time in Internet nowadays, that it is good for a farm to advertise its products and services there. For instance, it is important to have the farm's own webpage which contains basic information about the production and the contact details. It is possible to get the contact details displayed in some other organisations' webpage, for example, berry farmers' union provides a list of berry producers in North Karelia. This service is completely free for farmers, so there is no reason to reject the opportunity for free marketing. In addition to these, the farm can get its information available to different search engines like Google, so that customers would find the farm if they searched in the Internet. Next, the traditional marketing media, including newspapers, television and radio, are good options for a farmer

who wants to reach as many customers as possible at the same time. Television and radio advertisements are rather expensive and single farms rarely want to pay for the costs. Therefore, such advertisements are paid together with other farmers or even by the union. Newspaper advertisements, on the other hand, are cheap and farms can easily get their message known to the people by advertising in local newspapers. Furthermore, it is one of the fastest ways to inform people, for instance, about the start of berry picking, because most people tend to read newspapers and search for such information there.

Direct marketing is the most effective way of marketing, and farms should concentrate more on this method. They can create their own leaflets or brochures and deliver those to local residences and also public places like libraries and shops where people can pick the leaflet and view it at home. It is also possible to call people and inform about the products and services, but this method is uncertain. The reason is that some people get annoyed by such marketing, and they do not wish to be disturbed by strangers who try to sell something. In addition to direct marketing to end-users, it is possible to market products directly to shops. This would guarantee higher price for the producer than the use of wholesalers.

A very important fact in marketing is that the farmers should be very active, and increase the use of different marketing methods compared to the present situation. For instance, customers claim that they do not know what local farmers produce or offer as services. They wish personal marketing, because it feels that the producer really cares about the potential customers. Nevertheless, direct calls are allowed only if there already is a customer-producer relationship, for instance so that the customer has used the products before.

Kettulan Tila uses mostly free internet advertisements, newspaper advertisements, and direct customer contacts. The farm should create a marketing plan, which will show when the different actions should be made. Good ways to maximise customer contacts is to be more active and visible. Kettulan Tila should update the webpage regularly. In addition to that, it can advertise in local newspapers several times during the growing season, so that as many potential customers as possible would view the advertisement and get interested in the farm products. The farm already uses direct contacts to customers by phone, and it could create its own leaflet and deliver it locally to homes and public places, so that more people would be contacted. According to the customer answers, a leaflet is a better way to contact strangers

than phone calls. People can view the leaflet when they have time, and find more information in the Internet when the webpage address is added to the leaflet.

5.3 Development Options in Customer Service

Farms in North Karelia have various kinds of customer service. Some of it is good, especially in berry farms, because they have to compete about customers. Unfortunately there is bad customer service as well. It is more common in cereal farms, as it can be difficult for them to understand the customers' point of view. This is shown in example (17). Good customer service is essential for the business. If the customers are not treated well, they will find the product or service somewhere else. This means that it loses its customers gradually so that at the end the business must be shut down due to unprofitability. When customers are satisfied with the products and services, they will return and spread the information to people they know, as in example (18). This is actually one way of marketing. It is a very effective method since people will believe a customer who has experience about the product or service, and they want to try it, too. In addition to these, customers like to feel that they are treated individually, not as a mass. A good illustration of this is indicated in example (19). Furthermore, in good customer service, the farmer will act responsible in case of complaints, and he/she will not blame the consumer. As the old saying goes, the customer is always right. This is one of the key ideas in successful customer service. Moreover, customers wish in addition to individual treatment also that the salesperson would be friendly. One customer experience about not friendly, bad customer service situation is shown in example (20). Another bad customer service situation is explained in example (21), where the salesperson does not think about the customer's needs.

(17) *Especially in grain, but others also sometimes have hard time seeing their production from customers' point of view. They just produce something and after harvest they start to think who might buy it. (Interview, Expert)*

(18) *If customers are satisfied, they will come again and also tell others about the products. (Interview, Expert)*

(19) *It takes wisdom from sales people to treat each customer individually, some like active contacts, others prefer distance and time to make decisions without too pushy sales people. (Interview, Customer)*

(20) A tired salesperson might not greet or say “thanks”, and it feels bad.

(Interview, Customer)

(21) Sometimes sellers try to push sales, giving a sense they are more interested of their own advantages than the customer. (Interview, Customer)

According to the farm owner’s perception of customer satisfaction, Kettulan Tila has high quality products and friendly service. One of the aims of the farm is to think about the customers’ needs, and treat each customer as an important individual. These are very important points, and it is essential to teach the employees on the farm to treat customers according to the farms’ aims.

5.4 Agricultural Statistics on Amount of Farms, Cultivation Areas, Yield and Price

Here the essential changes in agriculture which help to choose what kind of production may be needed more in Finland and North Karelia are presented. These changes are related to amounts of farms, cultivation area and yield. In berries, the producer prices of recent years are provided.

In the beginning of the 21st century, there were 460 cereal farms and 187 horticultural farms in North Karelia. The amount of cereal farms has increased and decreased in different years, as table 3 shows, but the amount of horticultural farms has decreased gradually down to 141 farms. The amount of cereal farms has changed sometimes so dramatically, for instance, from 535 farms in 2006 to 458 farms in the following year. The reason for this can be that cereals, such as wheat and oats, give harvest only one year after which the field can be under grass cultivation. On the contrary, the changes in horticultural farms are slow. This can be a result from that in berry cultivation, which is a part of horticultural production, the plants give yield several years. Therefore there is no need to renew the production every year like with cereals. One reason why the horticultural farms are disappearing gradually can be that the average age of a Finnish farmer is close to 50 years old. The farmers get retired, and if there is no one to continue the business, the amount of farms decreases.

Table 3. Changes in amount of farms in North Karelia in 2000-2010. (Tike 2011)

Year	Amount of cereal farms	Amount of horticultural farms	Total amount of farms
2000	460	187	647
2001	500	186	686
2002	507	185	692
2003	524	180	704
2004	530	169	699
2005	513	165	678
2006	535	163	698
2007	458	149	607
2008	502	143	645
2009	511	137	648
2010	468	141	609

Kettulan Tila has some cereal production and horticultural production. As the farm wishes to increase profits, it is good to invest more on horticulture, because those products have better market situation and price compared to cereals, for instance. In addition to this, it is possible to try to get the customers of retiring farmers to become loyal customers for Kettulan Tila. As the amount of horticultural farms decreases, there will be some free market share that the remaining farms need to compete for. Therefore Kettulan Tila has a good opportunity to increase its popularity between customers and there through increase the profits.

In Finland, horticultural farms have nearly halved in the 21st century. Table 4 indicates the changes in horticultural farms' amount and cultivated area. In 2000 there were almost 7 000 farms which cultivated 18 000 hectares of land. Ten years later the area of horticultural production had decreased only by 2 000 hectares, although the amount of farms had decreased significantly, down to 3 500 farms. This means that the average size of a horticultural farm has grown from 2.6 hectares in 2000 to 4.6 hectares a decade later. The similar tendency will probably continue from there on since farmers are getting old and need to retire. If there will not be anyone to continue the business, amount of farms will decrease, and other farms have the opportunity to buy or rent the lands.

Table 4. Amount and area of horticultural farms in Finland in 2000-2010. (Tike 2012b)

Year	Amount of horticultural farms	Area of horticultural production (ha)	Average size of a farm (ha)
2000	6 838	18 074	2.6
2001	6 232	17 522	2.8
2002	5 991	17 440	2.9
2003	5 584	17 314	3.1
2004	5 265	17 173	3.3
2005	5 014	16 594	3.3
2006	4 487	16 305	3.6
2007	4 078	16 226	4.0
2008	3 805	15 667	4.1
2009	3 629	15 690	4.3
2010	3 500	16 011	4.6

Kettulan Tila has two hectares of land under horticultural production. As the farm has altogether 25 hectares of land, it is possible to increase horticultural area gradually. The reason for gradual increase of the cultivated area is that start up cost in horticultural production, especially in berry cultivation, are a lot higher than in other crops. As well, profits of berry production are higher than, for example, of cereal production. Therefore it is good for Kettulan Tila to begin to concentrate more on horticultural production.

Open land vegetable cultivation has experienced similar kind of changes like average horticultural production in the 21st century, as shown in table 5. This means that the amount of producers has nearly halved so that nowadays there are about 1 600 farms. The cultivation area has decreased in ten years from approximately 9 000 hectares in 2000 down to 8 500 hectares. At the same time, the average farm has increased its cultivation area from 2.69 hectares to 5.19 hectares as the existing farms have taken over the lands of the farms that have quit business.

Table 5. Amount of farms and area in open land vegetable production in Finland in 2000-2010. (Tike 2012b)

Year	Amount of farms	Production Area (ha)	Average size of a farm (ha)
2000	3 419	9 191	2,69
2001	3 037	8 830	2,91
2002	2 854	8 896	3,12
2003	2 704	8 937	3,31
2004	2 521	8 885	3,52
2005	2 322	8 345	3,59
2006	2 099	8 334	3,97
2007	1 902	8 457	4,45
2008	1 758	8 115	4,62
2009	1 699	8 245	4,85
2010	1 655	8 590	5,19

Kettulan Tila does not have currently any vegetable production. As vegetable production like all other horticultural production has better market prices compared to cereal and hay production, it is a good option for Kettulan Tila. Nevertheless, vegetable cultivation requires annual field works, such as ploughing and planting, which will take the producer's time. Therefore it might be better for Kettulan Tila to concentrate more on berry cultivation as berries are perennial plants.

Berry cultivation as part of horticulture has got decreased in amount of farms in Finland in the 21st century, just like vegetable production. Table 6 indicates the changes in berry cultivation. In 2000, there were more than 4 000 berry farms in Finland. Ten years later, the number of farms had halved down to 2 000 producers. The area of cultivation had decreased in same time by 1 500 hectares to 6 100 hectares. Berries do not usually give yield in the year when the production is started. The crop yielding area in 2010, for example, was about 5 300 hectares, of which the producers got more than 12 million kilograms yield. This means that the average yield per hectare in 2010 was 2 300 kilograms. Berries are the part of horticultural production which has the highest profits. Therefore it is recommended for Kettulan Tila to increase berry production. There are some differences in the producer prices of the different berries. This will be discussed later.

Table 6. Amount of berry farms, cultivation area and yield in Finland in 2000-2010. (Tike 2012b)

Year	Amount of farms	Production area (ha)	Crop yielding area (ha)	Total yield (1 000 kg)
2000	4 043	7 606	5 930	14 701
2001	3 724	7 459	5 962	14 777
2002	3 545	7 232	5 871	13 939
2003	3 294	7 060	5 727	11 316
2004	3 160	6 922	5 763	12 174
2005	3 051	6 881	5 853	13 130
2006	2 663	6 700	5 703	13 349
2007	2 436	6 516	5 685	12 268
2008	2 315	6 305	5 424	13 095
2009	2 197	6 218	5 413	14 518
2010	2 124	6 152	5 331	12 465

Kettulan Tila has already about two hectares of strawberry production. This is the only kind of horticultural cultivation on the farm. As the total amount of fields is about 25 hectares, the farm has a great opportunity to increase berry production and decrease hay production, which is less profitable. Currently the hay production takes about 20 hectares, which means the major part, of the total production area. As the farm is quitting the horse breeding unit in 2012, it will not need so much hay like before. Therefore, it is better to decrease the less profitable hay production and start some more horticultural production, especially berries.

Finally, the different berries and their cultivation are discussed. Four different kinds of berries are compared by their amount of production, yield and producer price. These berries are strawberry, raspberry, black currant and highbush blueberry. The time period for the comparison is 2005-2010. Tables 7 and 8 indicate the four berries, their production area, yield, and producer price. The production area of all the four berries has remained quite similar since 2005; strawberry's crop yielding area is about 3 000 hectares, that of raspberry is 400 hectares, and of highbush blueberry about 60 hectares. Only the black currant crop yielding area has decreased a little, from 1 800 hectares to 1 400 hectares. The yields in different berries have varied some during the time period. The reason for this can be that berry production is sensitive for weather changes, so for instance rainy summers decrease the amount of successful yield. The average yield of the different berries is as follows. Strawberry's average yield during the time period was 3 500 kilograms per hectare; raspberry's 1 300 kilograms per hectare; black currant's 800 kilograms per hectare; and

highbush blueberry's 1 000 kilograms per hectare. Strawberries have much higher yield compared to other berries, but the amount of yield is not the only affecting factor for the profitability. For instance, producer price is another important factor.

Table 7. Area of production and yield of strawberry, raspberry, black currant and highbush blueberry in Finland in 2005-2010. (Tike 2012b)

Year	Strawberry		Raspberry		Black currant		Highbush blueberry	
	Crop yielding area (ha)	Yield (1 000 kg)	Crop yielding area (ha)	Yield (1 000 kg)	Crop yielding area (ha)	Yield (1 000 kg)	Crop yielding area (ha)	Yield (1 000 kg)
2005	3 055	10 050	418	608	1 802	1 784	51	34
2006	2 989	10 377	423	524	1 668	1 596	62	60
2007	2 982	9 697	424	436	1 678	1 470	67	77
2008	2 871	11 151	406	534	1 567	992	64	54
2009	2 881	11 578	386	567	1 571	1 718	56	76
2010	2 917	10 286	394	529	1 472	996	61	91

Producer prices of the four berries vary a lot, as it is displayed in table 8. Black currant has the lowest price, which is only about 1 Euro per kilogram. Strawberry has also quite low price of approximately 3 Euros per kilogram. Only raspberry and highbush blueberry have significantly higher producer prices compared to the other two berries. The average price for raspberry in the time line is 7 Euros per kilogram and for highbush blueberry 8.50 Euros per kilogram. Strawberry, raspberry, and black currant prices in 2010 were higher compared to the beginning of the time line in 2005. High bush blueberry prices are available only for the last three years in the time line, and the price has decreased a little from 2008 to 2010.

Table 8. Producer prices (€/kg) of strawberry, raspberry, black currant and highbush blueberry in Finland in 2005-2010. (Kasvistieto Oy 2012)

Year	Strawberry price	Raspberry price	Black currant price	Highbush blueberry price
2005	2.68	4.90	0.93	-
2006	2.64	6.80	0.82	-
2007	3.58	7.94	1.18	-
2008	3.90	8.06	1.57	9.28
2009	3.52	6.18	1.54	7.67
2010	3.24	8.03	1.88	8.60

Next, the average yield per hectare and average price per kilogram are compared in different berries. When the average amount of yield in kilograms per hectare is multiplied with the average price per kilogram, the result shows the average income per hectare. The outcome is that strawberry has the highest income per hectare, around 11 700 Euros. The income of raspberry and highbush blueberry are very close to each other, approximately 9 000 Euros per hectare. Black currant has the lowest income which is about 1 100 Euros per hectare. Strawberry, raspberry and highbush blueberry are good choices for cultivation when their levels of income are compared. Black currant does not seem to be very profitable, and therefore it cannot be recommended to grow it since the production might not be enough to cover the costs.

As the above comparisons in average income between strawberry, raspberry, black currant and highbush blueberry show, Kettulan Tila has wisely started strawberry production, because the income per hectare in strawberry is the highest between the four berries. In addition to strawberry, it would be good for the farm to grow raspberries and highbush blueberries since they also have high income. It is not recommended for Kettulan Tila to grow black currant, because the income of it is too low.

5.5 Conclusion on Development Options for Kettulan Tila

Here are the different development options that arose for Kettulan Tila from the research material. Only the most suitable options are mentioned since it is not possible for the farm, for instance, to fulfil all kinds of demands and needs of the market. Chapter 7 will also present a separate development plan for Kettulan Tila. In that plan, there will be some timelines suggested when different kinds of actions could be made.

When it comes to choosing products and services to increase the profits of the farm, there are many options. It can be said that first of all, the farm could concentrate on production and when those operations run smoothly, it could consider whether there would be a need for certain kinds of services in the market that the farm could offer. The farm has two hectares of horticultural production and the rest is presently hay and cereals. As the market situation and prices are commonly better for horticultural products compared to other types of production, it is highly recommended for Kettulan Tila to increase the amount of

horticultural cultivation area. In horticultural production, berries are perennial plants, but vegetables require annual planting. Yearly field preparation works require a lot of time from the farmer, and therefore it is advised to prefer perennial berries. The amounts of yield and producer price affect the profitability of different berries. For instance strawberry, raspberry and highbush blueberry create good income for the farm, and therefore it is recommended for Kettulan Tila to increase strawberry production, and start raspberry and highbush blueberry cultivation. Organic production has good demand in the market, but the risks for plant diseases and pests are so high that at the moment it is better for Kettulan Tila to stay as a conventional farm. The farm has the possibility to market its products as chemical-free as it does not use any plant protection products for horticultural production.

Kettulan Tila must be more active in marketing, and continue the good quality customer service. It needs to use different kinds of marketing methods, for instance newspaper advertisements and Internet advertising. In addition to these, the farm could create its own leaflet to be locally distributed, and it may cooperate with other farms and companies. For instance, it is possible to offer the horticultural products for local restaurants and bakeries. It can also do contract production, which will decrease the risk for unsold yield. In customer service, the farm needs to maintain the good quality. It could create a customer service principles list and make sure that the employees on the farm will act according to those principles.

6 DEVELOPMENT PLAN FOR KETTULAN TILA

This chapter presents the development plan for Kettulan Tila. First, a SWOT analysis is done for the farm to help to understand its internal and external business environment. The SWOT analysis will give some suggestions for suitable development options. Then, in chapter 7.2 (Development Plan 2012-2014) the actual development plan for Kettulan Tila is presented. The chapter will explain some common tasks and activities to be performed annually, and after that the specific plan for each of the three years in the time frame is discussed.

6.1 SWOT Analysis for Kettulan Tila

Every business has strengths, weaknesses, opportunities and threats (SWOT). A firm can be a large scaled one or a small scaled one, but it is very important for every firm to conduct a SWOT analysis on its business environment. The reason is that it is the way the management can understand the abilities of the company and how to improve them, and also weak sides of the firm and how to make them beneficial or avoid the danger of them. It is the way to identify the problems and set the goals and create strategies to achieve goals. Since Kettulan Tila started its business in 2010 by the new owner, there has not been such analysis of its business environment. Therefore, it is important for the firm to understand its strengths, weaknesses, opportunities and threats in order to keep pace with the competition. That way, the firm can understand how to use strengths and opportunities to overcome the weaknesses and threats. This part of the report will focus on the SWOT analysis of Kettulan Tila. It will be very important to understand SWOT analysis before creating the development plan for Kettulan Tila later in this report. First, the different dimensions in the SWOT analysis are described in detail, and at the end there will be a table that shows briefly the discussed matters.

Strengths

Strengths are the most favourable part of a business, because they can keep the business running. Although strengths are favourable, some firms have not understood their strengths. Therefore, the business runs with some part of the strengths it really has. Some firms do not understand their strengths, so they are looking for other opportunities to develop the

business. Sometimes such situations can be more expensive than those in which the firm uses its own hidden strengths. For example, a farmer can think of buying a well-maintained flat field to cultivate berries which is located about 5 kilometres from main road. At the same time, he/she can have some other field very close to main road, but which are not well-maintained. In this case, the main road is the strength of the berry field that the customers can access easily without wasting extra time and efforts of finding the place. Therefore, the field near the road is the best place for cultivation of berries. It is very important to find out the strengths of a firm for the development of business.

Kettulan Tila has many strengths in its business environment. The main strength is that it is a monoculture farm, which means that it has focused on one type of cultivation instead of interplantation of different plants in the same field, which is the idea in polyculture farm. Kettulan Tila has strawberry and hay cultivation as its main business. When it is a monoculture farm, the owner has to concentrate on one area of farming. As well, the owner can be an expert with the necessary knowledge which is needed. It is also easy to find skilled labour for one type of crop, than finding for many different types of crops. Furthermore, controlling pests and weeds is easier when it is a monoculture crop, than in a polyculture farm, especially if it has to be use pesticides or weedicides. For a monoculture crop it is possible to use one kind of chemical and the mechanised spearing of the chemicals is easy. For a polyculture farm, where there are different kinds of plants interplanted in the same area, it may not be possible to use one chemical. The reason is that different plants may require different chemicals, and as the plants are mixed in the field, mechanised spreading is impossible. The competition between plants for nutrients, sunlight and water will be less when there is only one type of plant. When the harvest comes, it is easy to collect as there is only one kind of product in one area. However, different fields may have different kinds of products, which increases product range and there through it attracts more customers since there is more than one product. It is also a part in the minimisation of risks. It means that though one kind of production would be destroyed, for instance, due to bad weather conditions, other kinds of products may have successful harvest, and therefore the whole business is not having only a loss that year. As well, it is easier when it comes to storing the extra production, when there are products that require similar environment for storing. For instance, one cool store will be enough with one temperature to store strawberries, but if there are many different products, the required temperature can be different for each product,

and so there will be a need for many cold storages. It is also easy to find wholesale buyers for one product than for many products. For instance, when there is only strawberry production, the amounts are higher, but if there would be many different products, then the amount of each product would be small, and therefore not so attractive for the wholesale buyers.

Other strengths of Kettulan Tila are the location, its fields, and the varieties. The farm has four different types of strawberries. These different cultivars are called Honeoye, Polka, Jonsok and Bounty. It is the only farm with many varieties of strawberries in the area, so this will attract more self-picking customers since they can pick from one place many different types of strawberries as they need. As well, the ripen time of different type of strawberries varies. Therefore all the strawberries will not ripe at the same time, so the amount of waste will be less and the strawberry season will last longer. The location of Kettulan Tila is the other strength of its business. Kettulan Tila is located next to the main road where thousands of people are moving every day during the summer. At the same time, the other rival farms are located many kilometres far inside from the main road. The customers like if they can reach the place easily, so Kettulan Tila has a good chance of attracting more customers, especially self-picking customers and new customers. As well, the strawberry fields are located very close to a huge lake. This is a good strength of Kettulan Tila, because if any drought comes or in a less rainy summer, it is very easy to pump clean water straight to the field. As the field is also with the same level with the lake, the ground water condition is also good in the strawberry fields, so the soil will not get dry if there is a few days drought.

One other strength is that there are not many rival farms in the area. In Rääkkylä region there are about ten strawberry farms. Some of them are organic farms where the products are slightly expensive and amount of production is less. This is a good advantage for Kettulan Tila. Kettulan Tila also has many fields which are flat, so making the fields ready is extremely easy than in a slopy fields. The weeds on the strawberry fields are mostly annual weeds, and there are less perennial weeds. If there were more perennial weeds, it would be extremely difficult to weed them. Kettulan Tila also has a good crop rotation technique, so the land and soil conditions will remain same for a long time.

Another strength of Kettulan Tila is the young new owner's interest in farming. The owner really likes farming and she wants to develop the farm with new ideas. Interest of the owner is very important for the development and survival of a business. Furthermore, the owner has good attitudes towards good customer service and quality products. The idea is to keep the customers happy about the products and services. As well, the previous owners of farm are living at the farm, so the new owner has a good opportunity of using their expertized knowledge in farming. When the present owner bought the farm, it had almost all the heavy machinery what it needs, so unlike many other farms, Kettulan Tila owns machineries too.

The farm also has possibility of expanding the size of strawberry fields. Kettulan Tila has about 25 hectares of arable lands which have been maintained well for cultivation. As the large scaled farms have good profit, in near future Kettulan Tila can increase the size of its present two hectares of strawberry field. The farm also owns about 75 hectares of forest. This is a good strength of Kettulan Tila. This can be used in many ways, for example, if the owner needs some financial support for investing in some new fields, the forest is a good resource of income. As well, if any year the strawberry harvest did not give a profit, the forest will cover the loss. The old milk room which was used for storing milk when the old owners had cows is a ready room to build a big enough cold storage. Moreover, the cattle shed can be developed to a factory for producing strawberry related products, such as, jam, cordial and cakes. There are also many hay houses in Kettulan Tila and these can be used to store more hay bales. Those hay bales can be sold for higher price in the winter.

Weaknesses

Any weakness of a business is unfavourable for the firm's future. The weaknesses of the owner or firm's internal environment can damage reputation of firm, market share and customer attraction. It also can be beneficial for the competitors. Therefore, the weaknesses should be turned into strengths to achieve the objectives of the firm. Some weaknesses need only a little effort to make them favourable, while some weaknesses have to be avoided. Kettulan Tila also has many weaknesses in its internal business environment. It is necessary for Kettulan Tila to overcome the weaknesses to reach its future development objectives.

One of the main weaknesses of Kettulan Tila business is the lack of knowledge of the owner about new business field. Since the farm started strawberry crops in the summer 2010 for the

first time with new ownership, the owner has very short time experience about the specific field. It is quite difficult to maintain the business with too little knowledge and skills. It is also a weakness to have only one type of production, because the farm has to depend on that product then. If some year, the weather, pests or insects cause a decrease in the yield, the farm will not have any other crop to recover the loss. Therefore, this is a risk for the firm to rely on one production. The farm has hay production, too, but it is not enough to cover the losses if the strawberry got totally destroyed.

Kettulan Tila does not have any accommodation facility for its workers, and some fields are not in good enough condition at the moment to start horticultural production. The lack of accommodation facility is one of the main weaknesses of the firm. Nowadays many farms are using foreign labours, such as Russian workers. The reason is that they are cheaper than Finnish labours and also easy to find. When hiring foreign workers, the employers must provide them accommodation during their stay. Therefore, it is a weakness of Kettulan Tila that it does not have accommodation, so the farm has to rely on local workers who are hard to find and more expensive. As well, one of the strawberry fields was used as a grass field immediately before cultivating strawberries. When a field is used only for grass harvest for a long time, it can have too many types of weeds. When such field uses for strawberry cultivation, those weeds will start to grow between strawberry beds and plants. This is very harmful situation in farming. As well, when horticultural production is started on fields which have been in the immediate previous years under hay production, there are a lot of hay roots in the ground. Therefore, before starting horticultural production, it would be necessary to grow cereal a couple of years, because they do not leave roots as much, and then plant the berries.

In addition to these weaknesses, some of Kettulan Tila lands are having too many stones and also high level of acid. This is also a weakness that those can slow down the growth of plants. Stones also can damage the machines when ploughing and harvesting. The removal of the stones and the neutralisation of the acid level increase costs. As Kettulan Tila is a monoculture farm, in future, there can be a shortage of nutrients. When the same crop is growing on a land, those plants are giving only some certain types of nutrients to the soil. Therefore, in a long run, those lands can be not suitable for farming. Another weakness is the lack of marketing strategies. As the farm is new to strawberry business, it is very important

to have a very good marketing strategy to reach as many customers as possible. Furthermore, Kettulan Tila does not have any proper cold room yet which is a weakness. When the strawberries started to ripen, there should be a good cold store to store the extra harvest. Otherwise they will get bad quite soon. Moreover, Kettulan Tila does not keep a good, organised customer database. Customer database is something essential for a firm, because those data can be useful for the future too, so the owner can contact them every year.

Opportunities

This external factor is very important for the companies which are looking for further development. There can be many more opportunities around the business environment, so those opportunities should be used in favour of the firm. Ignoring the opportunities and postponing them will be more favourable for the competitors. The management should look for more opportunities continuously and try to get the advantage of as many of them. Kettulan Tila also has many opportunities. One of the main opportunities is the future of other similar farms in the area. As many other strawberry farmers in the region are close to retiring age and there is nobody to take the ownership of those farms, since the young generation has moved to towns. The only solution for them is to convert those lands to forest lands one day, unless someone managed to buy or rent them. Therefore, the opportunity of that will be with Kettulan Tila in future since the owner is a young person. There is also a good opportunity for cooperation between farmers in the area, so that the farmers can work together in many areas, such as, renting selling places in towns together instead of competing against each other, for instance, by denigrating each other to attract customers. As well, the farmers can borrow the machineries from each other and also they can buy expensive machineries together so the share of each will be less than buying alone. This is a good side of cooperating with other farmers.

Finnish people are each consuming about 12 kilograms of berries every year, and the most part of it is strawberries. Since Finland joined the EU in 1995, more than half of the strawberry farmers have left the business, but the amount of yield has not dropped similarly since the size of the farms has grown (Tike 2011). However, this amount of strawberry production is not enough to fulfil the demand of local market, so every year a lot of foreign strawberries are imported to Finland. Therefore, Kettulan Tila has good opportunity to increase the strawberry production in order to reach its future objectives. In Finland, there

are many agricultural advising organisations. These organisations are providing information and knowledge for farmers and some of those organisations are even giving financial support, for instance loans. This is another good opportunity that can be used. Rääkkylä is also relatively close to Russian border, about 100 kilometres, so there is a good opportunity of getting Russian workers. Some workers like to work close to the border areas since they can visit their home during the free weekends.

Threats

Threats are external factors in business environment which are not favourable for the firm. Some threats can be converted to opportunities or the impact of threat can be reduced by using the strengths of firm. Some threats can disturb the development of business, so it is better to avoid them as much as possible. There are many threats around Kettulan Tila's business environment. One of the threats is the competition by the other strawberry producers in the area who have got a good market share since many years. Those farmers are doing business since long time, but Kettulan Tila has been only two years. Therefore, it is quite hard to get customers' attraction since they are buying strawberries from those farms since long time. Another threat is that the population of Rääkkylä region is decreasing. Five years ago there were about 3000 inhabitants living in Rääkkylä, but today the amount is about 2500 inhabitants. This rapid decrease of population creates many problems, such as decrease in the amount of customers and farming labour force in the area. As well, it makes labour force more expensive. It is also difficult to find skilled labours for farming in the area, because many farming workers have got retired or left the area to work in other areas, and young people are moving to town to do other works instead of working in farming field. Since the closest cities to Rääkkylä are Joensuu and Kitee which are about 70 and 40 kilometres far from the farm respectively, it takes time and more cost if the farm needs to get something from city or to sell the products in the city.

There is a threat for Finnish strawberry production by foreign competitors. For example, there are strawberries in the market which are imported, but they are much cheaper than Finnish strawberry price. Therefore, Finnish strawberry farmers have to compete with those foreign strawberries. Some sellers are cheating customers by selling foreign berries as Finnish products, and this is a threat for other honest farms that try to sell their products. The reason is that foreign berries are cheaper, so they can easily attract customers if they are

marketed as Finnish berries. In addition to this, different taxation and EU regulations will also be other threats for the farm. Heavy snow fall in the North Karelia is also a threat for strawberry farming, because the snow falling can destroy some plants. One other threat is the price hike of farming related products and services, such as machineries and advising services.

These were the most important matters to be noticed in Kettulan Tila SWOT analysis. Table 9 indicates all the matters that have been discussed in this part of the report. It shows the different SWOT dimensions, so it may be easier to get a whole picture about Kettulan Tila's internal and external business environments.

Table 9. SWOT analysis on Kettulan Tila.

<p>Strengths:</p> <ul style="list-style-type: none"> • Monoculture farm • 4 different types of strawberries • Location of the farm • Nearby large lake • Not many competitors in the area • Flat fields • Young owner • Previous owner • Owner is interested in farming • Own machinery • About 75 ha of forest • Storing space • Possible factory making premises. 	<p>Weaknesses:</p> <ul style="list-style-type: none"> • Lack of knowledge • Single production • Hardness to find labour force • Weeds on the fields • Rocky fields • High acid level of soil • Lack of marketing • No cold and dry storages • No good customer database • Shortage of nutrients in soil
<p>Opportunities:</p> <ul style="list-style-type: none"> • Other farms are giving up • Cooperation between farmers • High strawberry consumption of Finns • Amount of farms are decreasing • Advising organisations • Close to Russian border-easy to get Russian workers 	<p>Threats:</p> <ul style="list-style-type: none"> • Competition • Decreasing of population in Rääkkylä • Lack of skilled labour force • Expensive labour force • No close by city/town • Cheaper foreign strawberries • Taxation, EU regulations • Heavy snow fall/climate changes • Price hike of farming products/services

6.2 Development Plan 2012-2014

Business development plan is an essential part of a business that looks for future development. It helps for a business to look forward for its development by using the potential resources it has while focusing on some key points, and preparing for the problems and opportunities. Development plan is different from firm to firm. One firm cannot always use another firm's business development plan, because the opportunities and resources the firm owns can vary to the other firm. Therefore, it is good to create own plan after studying closely the internal and external business environments. That will help the business to optimize the growth and development according to the priorities. A good development plan contains set of goals with a timeline, so the management can easily follow it to reach the goals. The goals can be short-term and long-term goals. Short-term goals take a shorter time to achieve them and long-term goals take longer time. The owners should try to achieve the goals within the time, so the business will sustainably develop as a profitable business. This part of the report will discuss the development plan for Kettulan Tila with a three-year time frame from 2012 to 2014. (Business Development Practice 2012)

Kettulan Tila is a farm which is operating in its new business environment since 2010. Since it has had only two years of business that have not been so successful so far, it needs a good business development plan for its future development. There were many reasons the farm could not make a profitable business, such as lack of experience, need for investments, lack of a good development plan, and ignorance of its internal and external environment. Therefore, Kettulan Tila needs a good development plan for its desired development. This plan is written after observing closely the farm's business environments by the writer himself, studying the farming statistics for last ten years and consulting many experts of farming field. The challenges and opportunities have been identified, so the development plan is made for next three years, starting from spring 2012. The objectives will be clearly stated and how to achieve them will be explained. SWOT analysis on Kettulan Tila's business environment was a major part of identifying the challenges and opportunities, so it was easy to create a good development plan focusing on SWOT factors. There has not been any development plan for Kettulan Tila so far, so this plan will help the farm to develop from its present position forward. In the development plan, first of all, the common things

which have to be done every year will be explained. After that, there will be three years plan separately explained according to the year.

Common tasks

Starting from the winter and early spring of each year these common tasks should be implemented. These described statements are shown also in table 10. Firstly, the owner should plan what to and how much to cultivate in the coming summer. There can be more of same plants what already have or something totally new. It will be a help to find out what to plant next by studying the statistics of sales, demand and prices about last five years. After deciding the type of plants, the orders should be made to buy them. Ordering plants in an off-peak time like in the winter or beginning of spring is cheaper than buying them in the peak time like summer. Next, the amount of workers needed for the summer should be estimated. For instance, one of the interviewed experts claimed that for taking care of one hectare of strawberry field, there have to be 6-7 permanent workers. In that case, Kettulan Tila needs about 12-14 workers for its two hectares of cultivated area at this moment. When it increases the area in future, there must be an equivalent amount of workers.

After the estimation of the amount of workers needed, next step is to look for them. It would be easier if it is possible to find people from close by areas, because the accommodation problem will be solved then. Otherwise looking for workers from other possible areas is the only solution. It is also possible to get workers from Russia, since the farm is located in relatively close area to the Russian border. There are many agents who are supplying workers, so contacting them would make it easy to find experienced workers. As soon the workers are found, the contracts should be made. The contracts should include all the necessary conditions, such as estimated start and end dates, salary scales, hours of working and holidays. The harvest season may vary from year to year so it is not possible to define exact dates. Making contracts is better than agreeing by word-of-mouth, because then those people cannot avoid coming or agree with someone else, since such things can happen. As well, it is more beneficial if possible to make agreements for a longer period, such as 3-5 years, so the owner does not have to find workers every year then. After finding workers, next step is to find accommodation facilities for them. It would be better to have own accommodation places, but if not, at least some rented places. This will be explained later in yearly plan.

Next step is to formulate marketing plan for selling strawberries. Kettulan Tila did not have any good marketing plan so far, so it is necessary to create one. One good marketing strategy is to contact customers directly. For that, first the owner should check the customer database. Since Kettulan Tila does not have any good customer database so far, it is necessary to create it from this summer on. In each spring, the owner should check the customer database and categorise them according to the amount they bought previous years. It is better to make the list from most to least of the amount of strawberries bought. This way, it is easy to prioritise the customers. It will also help after few years to categorise the regular customers and most profitable customers, so some kind of rewarding system for them is a good way of keeping them with Kettulan Tila in future too. After making the list, the owner should contact them and remind them about strawberry production this year too, with a friendly small talk in the beginning. If it is possible, it would be good to agree with them in advance about the approximate amount and type of strawberry they will buy. This will help to estimate if the production of strawberry is enough or not. As well, it will help to find wholesale buyers if there is over production.

Then there should be arrangements for the services the farm needs. For instance, the fertilisers, pesticides, strawberry packing and transporting boxes, fuel for the machinery and if any machine to be rented, these have to be arranged already in the spring. If the farmer waits until the actual time those services are needed, then those can be more expensive and sometimes not even possible to get easily or there can be long queue for them. As well, the tools and equipments like working shoes, working clothes and gloves should be bought already in the spring. The reason is they are cheaper in the spring than in the summer, and also there can be a shortage of them in the summer due to more sales. Everything must be ready and put them in the places where easily can be found before the summer works start.

As the last thing in the spring, after the snow melted away from the fields, the field inspections must be done. The present strawberry fields should be checked well, especially the beds and plants. The beds can be broken some places during the winter by heavy snow, so those places must be fixed. Some plants can have died, so those empty holes must be filled by new plants when the right time comes. The old and dead leaves of plants must be removed away, because if those leaves stayed with the plant, the fungus will grow in them

and it is bad for the strawberries. Later in the spring, when the plants are starting to grow, if there can be seen some weeds are growing in between plants, those must be eliminated already before they grow bigger. Finally, in the end of spring, the soil condition must be checked, for instance, the pH level of soil. If there any need of lime on any new field, which will be put under strawberry production, it is better to order it already. As well, if there is going to be enlargement of strawberry fields, it is better to check which field is the most suitable. At least following things should be checked: the amount of stones, level of pH, humidity and types of weeds growing, so it is easy to decide which field is the best for new cultivation. Furthermore, all the machines should be checked that they work in normal condition. If they need any repair, it is better to do them already in the end of spring, so the summer works will not be delayed by broken machines. After everything is done, the summer plan must be implemented.

Table 10. Common tasks for Kettulan Tila in spring.

<p>Spring</p> <ul style="list-style-type: none"> • Cultivation plan • Order the plants • Arrangement of workers and accommodation, if needed • Formulate the marketing plan and marketing strategies • Contacting the possible customers (B2C & B2B) • Arrangement of services needed • Present strawberry fields check-up/inspections (e.g. beds, plants) • Testing the soil condition (e.g. pH level, humidity, stones) • Check-up of machinery

There are many common things should be done every summer and autumn. The tasks to be completed in the summer are displayed in table 11. Examples of summer works are getting the workers, ploughing the fields, planting, weeding, picking berries, harvesting cereals and baling hay are to name a few. There are notice boards in the supermarkets and some other public places where people can fix their advertisements. This is a good place to fix the advertisement when the strawberries start to ripen. It should display the different types of

strawberries, address and telephone number. It is good to create the advertisements together with a designing company, so the quality will be better than if the farmer with no experience in design will try to create an advertisement. This will increase costs a little, but the return in customer contacts will probably be higher, too. Furthermore, the owner also can agree with local shops to leave a leaflet near the cashier table, so the customers will take it. Those papers should be colourful which will attract customers' eye, so it is better to create the leaflet also with the help of a designing company.

Moreover, traditional newspaper advertisement and modern Internet advertising are needed. There are some local newspapers, such as Koti-Karjala and Kotiseutu-Uutiset. It is also possible to advertise in these newspapers since they are not very expensive. Internet advertising is another good marketing strategy. Creating and updating an attractive social media profile like Facebook is also a good way of marketing. As well, maintaining an attractive webpage of Kettulan Tila is a must, and it should be started already from 2012 and updated regularly.

In addition to these, a road side display board is an essential part of marketing. It is a very effective way to get customers who are travelling by cars and randomly looking for picking strawberries. Another marketing strategy is that there should be a good rewarding system for the customers who are buying big amounts once. For example, if someone buys four boxes which amount 20 kilograms altogether, the fifth box (5kg) will be free. Otherwise, there can be a discounted price for the people who are buying such big amounts or for special groups like students or senior people. In addition to these, the specific things that should be done for the development of the farm will be explained later according to the year.

Table 11. Common tasks for Kettulan Tila in summer.

<p>Summer</p> <ul style="list-style-type: none"> • Hiring workers • Planting • Weeding • Advertising <p>Paper advertising</p> <p>Road-side boards</p> <p>Leaflets</p> <p>Internet advertising and webpage maintaining</p> <p>Social media</p> <p>Special offers</p> <ul style="list-style-type: none"> • Picking berries • Harvesting cereals • Bailing hay

In the autumn and winter, the amount of tasks is less compared to spring and summer, which are rather busy seasons for horticultural farms. Nevertheless, in the autumn also there are many things to be done in every year, as common things. These tasks are displayed in table 12. For instance, in each autumn before the start of snow fall, the strawberry beds must be covered by nets, so the plants will not be damaged by heavy snow in the winter. All the machines must be cleaned and if there is a need of for instance oil change or filters change, those must be done. It is not good to leave those until next year, because it will reduce the life time of the machines. All the tools must be cleaned and put them in appropriate places. The customer database needs to be updated, and costs, revenues, profit and loss must be calculated. In addition to this, the whole business process should be analysed and compared to the plan to see if everything went according to the estimations. Finally, old fields that require renewing need to be ploughed.

Table 12. Common tasks for Kettulan Tila in autumn.

<p>Autumn</p> <ul style="list-style-type: none"> • Updating the customer database • Calculating the costs/revenues/profit/loss • Analyse the whole business process and compare with plan • Machine and tools check-ups • Ploughing the fields • Covering the strawberry beds by nets • Cleaning the canals around the fields

In the winter, there are not many things to be done, and these few tasks are indicated in table 13. It is possible to start to plan the things to be completed next spring. It can sometimes be also cheaper to buy some equipment needed for the following summer already in the winter. As well, all the documentation works should be prepared for the authorities. These include, for instance, tax papers and EU fund applications.

Table 13. Common tasks for Kettulan Tila in winter.

<p>Winter</p> <ul style="list-style-type: none"> • Possible planning of next year • Order in advance some goods and services for next summer • Documentation works for the authorities (tax papers, EU papers)
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All the things explained above under ‘Common tasks’ need to be completed annually. Next, the specific things to be done for next three years will be explained below. As Kettulan Tila is a small-sized farm, which is in the beginning stage of business operations, sudden changes cannot be expected to happen in the production since those would require significant investments. Therefore the three-year plan will not show very many changes in the farm, but it will show the direction to which the farm should go. The special importance of the development plan is to show how to get the business more profitable.

2012

Since the spring has gone more than half, there are only few things to be done in this spring in the development process of Kettulan Tila. All the tasks for spring 2012 are also indicated in table 14. The main thing is that the owner must plan the new cultivation of crop for this summer according to the most suitable options that have arisen from the research. There are many options for this according to the statistics and experts' ideas, but the best option seems to be raspberries. Raspberry has almost three times higher average selling price compared to strawberry. As well, it is not common as much as strawberries. Therefore, cultivation of raspberries is the best option for this summer. The amount of area should be half to one hectare, because of the investment costs and time of first harvest. A raspberry plant is about three times more expensive compared to strawberry plant, but the density of plants on the field is five times smaller than with strawberry. It takes two years to give first raspberry harvest. As Kettulan Tila did not have much profit last years, it cannot afford for a bigger investment. Therefore it is better to cultivate only half to one hectare of raspberries in the beginning. To find the investment cost, some forest must be sold. For example, about three hectares of forest must be sold this spring. It would give approximately about 20 000 Euros, so it is enough for the investment and to cover the expenses during the summer.

After the decision for the size of the area to cultivate is made, the plants must be ordered. As the following step, the marketing plan must be created. There should be mentioned, for instance, who or where is the market, how to market the products and which marketing methods should be used. Kettulan Tila's market is mainly based in Rääkkylä region, as well as other close by areas like Joensuu and Kitee. Mainly private people have been the target group, but from now on, the farm should target also organisations like bakeries. As marketing methods, Kettulan Tila should use different kinds of marketing methods, especially direct contacts, newspaper advertisements and Internet advertising. Firstly, the previous year's customer database should be analysed. Since there is not a well-maintained customer database, it is good to check the directories of the area and contact the people over the phone and by email. As well, the restaurants and bakeries must be contacted and try to make some agreements with them by giving some offers, because they are buying some bigger amounts. It is also possible to contact catering services and elderly people's retirement homes and nursing homes with some special offers.

Another essential thing to be done is to order a cool room to store strawberries and later raspberries. This is a must since last year there was a large amount strawberries got bad due to lack of cold storage facility. The cold room size must be at least 2m x 2m x 2m so there will be enough space for now, but in future it has to be enlarged. The best place for fixing the cool room is the milk room of old cattle shed, since the room is in good shape, so there is no need of building a new room which can be costly. Furthermore, a small wooden room should be ordered to fix on the strawberry field. It is important to have a place for resting for the berry pickers, so especially the self picking customers would be happy to enjoy a cup of coffee while resting in it. Next step is to estimate the amount of workers needed and contact them. If the workers need accommodation facility, it would be better for this summer to rent some private houses from close by areas. There are many houses in the area which are close, so those houses could be rented, and monthly rent will not be that expensive since it is a rural area. It is not possible for Kettulan Tila to build own rooms to accommodate workers already this summer, because it is difficult to afford for such a big investment, and the construction would last the whole summer, so it would not be ready for the berry pickers to stay. Therefore, renting some houses would be the best option for this summer, because the renting price is quite cheaper in countryside compared to urban areas. Renting houses should be arranged already in the spring when the amount of workers needing accommodation is sure.

Table 14. Special tasks for Kettulan Tila in spring 2012.

<p>Development Plan - Spring 2012</p> <ul style="list-style-type: none"> • New cultivation plan <ul style="list-style-type: none"> - A half hectare of raspberry - Reduce the bale hay production • Selling 3 ha of forest • Ordering the raspberry plants • Creating the marketing plan and methods • Ordering the cool room (2m x 2m x 2m) • Ordering a rest room for the customers • Arrange renting accommodation places for workers (if needed)

In the summer 2012, while doing the usual works, there are some plans to be implemented according to the development plan. These tasks are indicated also in table 15. The first thing is to get about three of the agreed workers and accommodate them. This has to be done in the beginning of June. Then the field for raspberries should be prepared. Raspberry plants must be planted already in the first or the second week of June. It is also important to lay a plants watering system at the same time, to water the raspberry plants. This does not have to be a complex and expensive system, since there will be only about 1 400 plants approximately.

Another important task is to construct a parking place for cars. The strawberry fields do not have a proper car park for the customers. At this moment there is only a small car parking area where only about three cars can be parked, so it must be enlarged. There should be space to park at least ten cars at once. The only way to make a bigger car park is to take some space from the forest adjoining to the strawberry field. The road side display boards should be fixed when the strawberries started ripen. It was a big weak point that last two years there was not a display board, so Kettulan Tila did not get any customer who will stop randomly by seeing the display board.

As the owner has planned to sell all the horses and shut the horse breeding unit, it should be done already this summer. Horse breeding unit gives neither income nor any other benefit, and it is just a cost only. Therefore, it is a good decision to close the unit totally. From this summer on, the amount of dry hay bales production should be reduced. The dry hay was mainly produced to feed cattle, but since there is not cattle anymore, and horse unit also will be shut, there is no need for dry hay. It is also quite difficult to sell the dry hay with a good price, and there are still a lot of dry hay bales left in the stores which were made previous summer. As many of Kettulan Tila's hay fields contracted to a neighbouring sheep farm, it is good to make contracts for the rest of the hay fields too.

Table 15. Special tasks for Kettulan Tila in summer 2012.

Development Plan - Summer 2012

- Hire the equivalent amount of workers
- Prepare the raspberry field with a simple watering system
- Planting raspberry
- Enlarging the car park in strawberry field
- Implementation of marketing plan
- Removing the horse breeding unit

2013

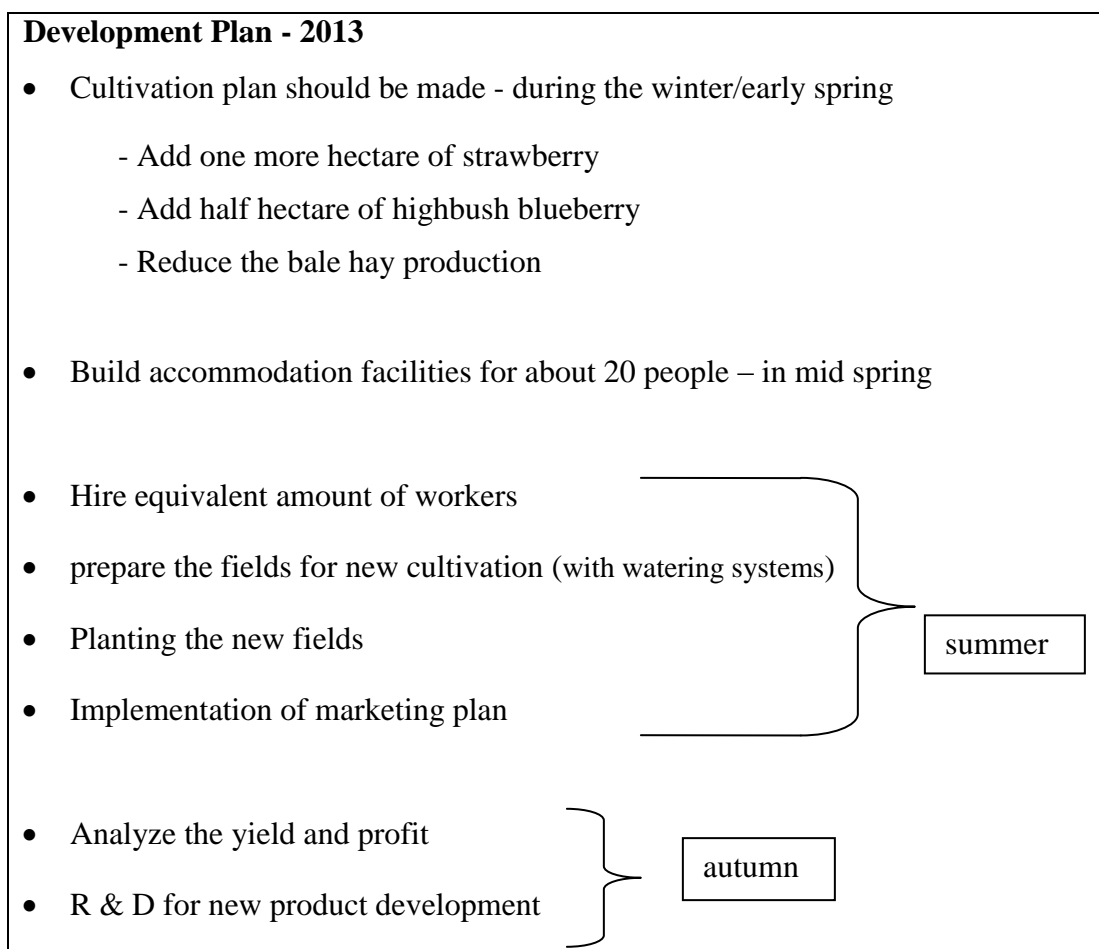
In 2013, the development to the horticultural side will continue as displayed in table 16. The plan for cultivation needs to be made in the winter 2013. As Kettulan Tila added raspberries in 2012 and it takes two growing seasons to get first yield, in 2013 the farm will get its first raspberries. It may not be good to add more raspberries in 2013, because it is good to see how good yield the berries give, and can they be sold in the market fresh. Therefore some other kinds of plants should be added in 2013. It would be good to add about one hectare more of strawberries, and half hectare of highbush blueberries. These fields should also have the water supply system. The highbush blueberry needs up to three to four years before it gets berries, so this is the time to try it, and the results will come later. As the horticultural production increases, the hay production will decrease.

In addition to the cultivation plan, some accommodation facility should be arranged for the berry pickers and other farm employees. It is expected that with the good marketing plan created previous year, the farm will have much more profit. Therefore it is possible and highly recommended for the farm to construct a small house for about 20 employees. In a long run, the construction of such house will become a lot cheaper than renting a house and arranging transport for the employees. In 2013 the production area of horticultural production has grown, so there will be need for more employees compared to the previous year.

As the horticultural production increases, all of the berries may not be sold fresh directly to customers and organisations. Therefore, the possible wholesale buyer should be contacted so

that the additional berries can be sold there. It is also possible to store some of the berries, for instance, by freezing them. Nevertheless, this will not be an option for all the extra berries as there will not be enough store space or market to sell the frozen berries. After the growing season, the yield and profits are analysed, and conclusions on the choices should be made. It would also be good to consider whether it is possible to start a berry processing factory on the farm. There are so many companies making juice and jam that it would be best to invent something new, or at least think of some use of berries which is not very common but which would have good market situation.

Table 16. Special tasks for Kettulan Tila in 2013.



2014

In 2014 horticultural production should be added more, and hay production should be decreased. The plans for 2014 are displayed in table 17. This time the raspberry plants have already given one yield, so it is possible to estimate its success. Depending on the market situation and wholesale buyer, raspberry cultivation can be increased up to two hectares

altogether. Strawberry production can also be increased, maximum up to the total amount of eight hectares. All the new fields should get the water supply system set up. As by this time, all the fields near the farm house are occupied, some of the production must be started in the far fields. This increases the risk for animal damages as deer and rabbits are tempted by the new berry plants. Therefore it may be good to build tunnels with removable plastic roofs and walls around the berry beds. This will reduce the damages caused to the plants by animals significantly, because the animals are afraid of this kind of creations. It is also possible to set up nets on both sides of the tunnel ends, so the access to the tunnels will be blocked by all the animals. The tunnels will, in addition to reducing risks for animal damages, also enable berry picking in any kind of weather conditions. As the tunnel has a roof, it is possible to pick berries when it is rainy. Furthermore, tunnel system keeps more heat for the berry beds, so the harvest season will start earlier. This is a benefit since the farm has then the opportunity to get berries earlier to the market compared to other producers.

As a new investment, Kettulan Tila can construct a small factory for berry processing. The old cow shed premises can be transformed into that purpose. As the total amount of horticultural production in 2014 may be approximately ten hectares, it is good for the farm to look for other opportunities also, not just fresh selling to customers and wholesale buyer. The berry processing should create some berry related products that have a demand in the market. Large amounts of juices and jams are consumed by Finns, but there are very many producers for such products. Therefore it may not be easy to get the products in to the market as the other producers and their products already have their customers, so the new product should have some quality or feature which the other products do not have. It might be easier to enter the market with a product which is rarely produced, or even invent a totally new kind of product. The marketing campaigns for such new products should be more intensive, so that people will get to know the product, get attracted and purchase it.

When the farmer gets involved with the berry processing business, it is important to hire enough employees for the production and marketing of berries, because the farm owner will not have time to manage all the sectors. It would also be good to invest in additional services like amusement for children. This would attract families to come and pick berries since the children would have some entertainment while the adults would pick berries. At this stage the berry processing unit may be small-scaled, but in future the production can be increased.

Furthermore, the farm can hire people to sell fresh berries at market places in the close by towns. In addition to this, it is important to evaluate the business after the growing season in the autumn, and look for new development options.

Table 17. Special tasks for Kettulan Tila in 2014.

Development Plan – 2014	
<ul style="list-style-type: none"> • Create the annual cultivation plan – during the winter/early spring <ul style="list-style-type: none"> - According to last year analysis, add 1 ½ ha of raspberry - Add 5 ha of strawberry - Reduce the bale hay production 	
<ul style="list-style-type: none"> • Hire equivalent amount of workers • Tunnel system over the berry beds • Field preparation for new cultivations (with watering systems) • Planting the new fields • If previous year’s R&D results is positive, investment on small-scaled berry processing factory/ unit • Rent space to sell berries in close by city centres 	
<ul style="list-style-type: none"> • Do R&D for further development opportunities - autumn 	

After this three years period, which is described in this development plan, Kettulan Tila may do more research and continue development in the horticultural side. It can try to grow in addition to berries some vegetables or flowers which are also part of horticulture. These other horticultural products can also be sold at the market place with the berries. The changes cannot be very fast, as it requires many investments, but gradually the amount of hay production should be quitted totally and farm will then be totally under horticultural cultivation. When the total amount of 25 hectares is under horticultural production, there will be a need for about 100 seasonal employees. Therefore the accommodation facilities must be arranged in advance. As well, some more employees will be needed in the berry processing unit. This unit will be functioning all year round, so the employees will have to live in the area. Probably it will be easier to find workers for this kind of process works than berry

picking. Another development options are greenhouses and biogas units which will use the waste to generate power, for example heat and electricity for the greenhouses.

7 CONCLUSIONS

This chapter discusses the conclusions of the research. The objectives of the research are reviewed, and the estimation of how well these goals were achieved is presented. Furthermore, there is a summary of the results. In addition to these, critique on the research process is stated, and possible improvement options for further study are recommended.

The main aim of the research was to provide useful information for Kettulan Tila about its development options in its business environment. The development options were estimated so that the most profitable choices could be made. The areas of development were narrowed to products and services, marketing methods and customer service, because otherwise the research would have grown too large. As well, these areas of development play key role in making the business profitable. The research was successful and many development options were found. The analysis of the research material helped to decide which development options would be the most suitable for Kettulan Tila. With the most profitable development options as a guideline, a development plan for three years, from 2012 to 2014, was created to help Kettulan Tila to gain more profits. Therefore the objectives of the research were achieved.

The research showed that some development options would be more suitable for Kettulan Tila than some other options. For instance, the amounts of horticultural farms and horticultural production area have decreased gradually since 2000. This has caused a decrease in the yield gained from horticultural production. Nevertheless, there is a growing need for horticultural products in the market, and those products' market price is also much higher than for example cereals. Therefore Kettulan Tila should invest in horticultural production. Vegetables as a part of horticultural production have lower market prices than berries, and they are not perennial plants like berries are, so they require annual ploughing and other field preparation works. These required annual works take both money and time, so therefore it is recommended for Kettulan Tila to invest more in berries as they give yield several years. Different berries have different kinds of profitability levels. For instance, strawberry gives the highest amount of income per hectare when compared to raspberry, highbush blueberry and black currant. Raspberry and highbush blueberry also give very high

income per hectare, so it is recommended for Kettulan Tila to start the production of these two berries, and increase strawberry production from the current two hectares.

The use of different marketing methods and good quality customer service affect the profitability of the farm. The farm needs to be more active in marketing, and focus especially on direct marketing. In addition to that, the farm needs to use newspaper advertisements and Internet advertising in order to reach as many potential customers as possible. Cooperation with other farms and companies may make the farm more visible for the potential customers, and therefore attractive for people. Good customer service affects customers so that they come again, and recommend the farm for the people they know. Kettulan Tila must continue the good quality customer service which it already has. To ensure this, the farm should have good customer service principles listed down and handed over to all the employees, so that they can help the customers according to the farms' aims.

Although the research process overall was successful, there were some problems during the process. In the beginning, the aim was to find out which are the most suitable development options for Kettulan Tila in order to meet customer needs. The research method for this purpose was planned to be a survey which should be answered by the customer at Kettulan Tila in summer 2011. There were so few customers who were willing to take part in the research, and so the research method and research questions needed to be changed. The research question was changed from customer-orientated to business-orientated as it then asked for the most profitable development options for Kettulan Tila. The research method was changed from a survey to a qualitative interview. Nevertheless, it seemed that the interview answers will not provide enough information so that development options could be evaluated by their profitability. Therefore also some statistics were included in the research to ensure that the statements on how profitable the different development options were, would be based on enough information about the different options. These changes in the research process caused no other harm except a short delay in the process.

Kettulan Tila has now a development plan for three years. It does not mean that the farm should develop its activities only in the direction the development plan is showing in future, too. The development plan which was created as a result from the research and its results gives only a start in the most profitable development options. In future, the farm should

continue studying its business environment deeper, and do more R&D programmes. Then it can decide whether other development directions, which were left out from this research due to prioritising, would be good options. Those development options include, for instance, agrotourism, cottage lending and many other options.

BIBLIOGRAPHY

12 Qualitative Interviews of Farming Experts, Farmers and Customers. Spring 2012.

Agency for Rural Affairs 2012a (on line)

Tilatuki.

<http://www.mavi.fi/fi/index/viljelijatu/tilatuki.html>

Retrieved 2 April 2012

Agency for Rural Affairs 2012b (on line)

Maatalouden ympäristötuki.

<http://www.mavi.fi/fi/index/viljelijatu/maataloudenymparistotuki.html>

Retrieved 2 April 2012

Agency for Rural Affairs 2012c

Hakuopas 2012. Agency for Rural Affairs. Helsinki.

Barbier, E. B. (on line)

Explaining Agricultural Land Expansion and Deforestation in Developing Countries

<http://uwyo.edu/barbier/presentations/explaining%20agricultural%20land%20expansion%20and%20deforestation.pdf>

Retrieved 30 April 2012

Biuso, E. 2007 (on line)

Down on the Farm With Your Sleeves Rolled Up. *The New York Times*. 23 November 2007.

<http://travel.nytimes.com/2007/11/23/travel/escapes/23agritourism.html?sq=agritourism&st=cse&scp=2&pagewanted=all>

Business Development Practice 2012 (on line)

The Business Development Practice

<http://www.bdpractice.com/index.html>

Retrieved 20 April 2012

Brouwer, F. and van der Straaten, J. (ed.) 2002

Nature and Agriculture in the European Union. New Perspectives on Policies that Shape the European Countryside. Edward Elgar Publishing Limited.

Cheltenham.

The Central Union of Agricultural Producers and Forest Owners (MTK) (on line)

The Finnish farm.

http://www.mtk.fi/MTK_briefly/agriculture/en_GB/agriculture_farm/

Retrieved 30 March 2012

Chapman, A. 2012 (on line)

Marketing and advertising tips.

<http://www.businessballs.com/market.htm>

Retrieved 20 April 2012

Destination CRM 2010 (on line)

What is CRM?

<http://www.destinationcrm.com/Articles/News/Daily-News/What-Is-CRM-46033.aspx>

Retrieved 20 March 2012

Dimireva, I. 2010 (on line)

Finland: Economy Overview

<http://www.eubusiness.com/europe/finland>

Retrieved 20 March 2012

Environment Agency 2006 (on line)

Good farming, better environment. Environment Agency. Bristol.

<http://publications.environment-agency.gov.uk/PDF/GEHO0406BKEP-E-E.pdf>

Retrieved 30 April 2012

Environmental Centre for Swaziland 2001 (on line)

Environmental Impacts of Agriculture

http://www.ecs.co.sz/env_articles_eiaagric.htm

Retrieved 20 March 2012

European Union 2012a (on line)

Activities of the European Union – Agriculture

http://europa.eu/pol/agr/index_en.htm

Retrieved 1 April 2012

European Union 2012b (on line)

Single Farm Payment

http://europa.eu/legislation_summaries/agriculture/general_framework/ag0003_en.htm

Retrieved 1 April 2012

Finnish Food and Drink Industries' Federation (ETL) (on line)

Food and drink industry

http://www.etl.fi/www/en/food_Industry/index.php

Retrieved 20 March 2012

Food For Life Finland 2009 (on line)

The Finnish Food and Drink Industry

<http://www.foodforlife.fi/english/key-players/industrial-companies>

Retrieved 30 April 2012

Foresight 2011 (on line)

The Future of Food and Farming. Final Project Report. The Government Office for Science. London.

<http://www.bis.gov.uk/assets/foresight/docs/food-and-farming/11-546-future-of-food-and-farming-report.pdf>

Retrieved 20 March 2012

Garcia-Torres, L. et al. 2002 (on line)

Conservation agriculture, environmental and economic benefits

<http://www.unapcaem.org/publication/ConservationAgri/CA1.pdf>

Retrieved 20 March 2012

Kallio, P. et al. 2002 (on line)

The Finnish Food Industry and the Baltic Countries. Pellervo Economic Research Institute Reports No. 184

<http://www.compiler.fi/idankaupan/tutkimukset/ptt1.html>

Retrieved 20 March 2012

Karjalainen, J. 2011

Where is value created in the Finnish food industry? Case: Finnish food company. Aalto University. School of Economics. Thesis work.

Kasvistieto Oy 2012 (on line)

Vuosikeskihinnat. I-luokan kotimaisten kasvisten veroton pakkaamohinta 2005-2011

http://www.kasvistieto.fi/index.php?option=com_content&task=view&id=8

Retrieved 24 April 2012

Kazimirski, L. 1998 (on line)

Traditional agriculture

<http://dp.biology.dal.ca/reports/kazimirstt.html>

Retrieved 20 March 2012

Kotler, P. et al. 2002

Principles of Marketing. Prentice Hall. Essex.

Kotler, P. and Keller, K. L. 2006

Marketing Management. Prentice Hall. New Jersey.

Ministry of Agriculture and Forestry (on line)

Horticulture in Finland

wwwb.mmm.fi/julkaisut/esitteet/puutar.doc

Retrieved 1 April 2012

Ministry of Agriculture and Forestry 2010 (on line)

Agriculture

<http://www.mmm.fi/en/index/frontpage/Agriculture.html>

Retrieved 30 April 2012

Ministry of Agriculture and Forestry 2008 (on line)

Farming and food in Finland

http://www.mmm.fi/attachments/mmm/julkaisut/esitteet/5DfO4K8mi/Maatalous_ENG.pdf

Retrieved 20 March 2012

OECD (on line)

Agriculture and the Environment: Lessons Learned from a Decade of OECD Work

<http://www.oecd.org/dataoecd/15/28/33913449.pdf>

Retrieved 20 March 2012

Parris, K. 2002 (on line)

Sustainable agriculture depends on biodiversity. *OECD Observer* No. 233.

www.oecdobserver.org/news/fullstory.php/aid/755/

Retrieved 20 March 2012

Priess et al. 2007 (on line)

Socio-Environmental Impacts of Land Use and Land Cover Change at a Tropical Forest Frontier.

http://www.mssanz.org.au/MODSIM07/papers/5_s45/Socio-environmental_s45_Priess_.pdf

Retrieved 20 March 2012

Uri, N. D. 2006

Agriculture and the Environment. Nova Science Publishers. New York.

Skinner, J. A. et al. 1997

An Overview of the Environmental Impact of Agriculture in the U.K. *Journal of Environmental Management* (1997) 50, 111-128.

Solsten, E. (ed.) 1991 (on line)

Cyprus. A Country Study. GPO for the Library of Congress. Washington

<http://countrystudies.us/cyprus/22.htm>

Retrieved 1 February 2012

Solsten and Meditz 1988 (on line)

Finland

<http://countrystudies.us/finland/>

Retrieved 1 February 2012

Tike 2011 (on line)

Farm Structure. Farm Register – Farm Structure 2010

http://www.maataloustilastot.fi/en/farm_structure

5 April 2012

Tike 2012a (on line)

Horticultural statistics

http://www.maataloustilastot.fi/sites/default/modules/pubdlnet/pubdlnet.php?file=http://www.maataloustilastot.fi/sites/default/files/vihannesviljely_avomaa_lla_2011.xls&nid=2467

Retrieved 20 April 2012

Tike 2012b (on line)

Horticultural statistics

<http://www.maataloustilastot.fi/en/horticultural-statistics>

Retrieved 20 April 2012

Tike 2012c (on line)

A record breaking harvest for horticultural farms

http://www.maataloustilastot.fi/en/record-breaking-harvest-horticultural-farms_en

Retrieved 20 April 2012

Trautmann N. M. et al. 2012 (on line)

Modern Agriculture: Its Effects on the Environment

<http://psep.cce.cornell.edu/facts-slides-self/facts/mod-ag-grw85.aspx>

Retrieved 20 March 2012

United States Department of Agriculture 2010 (on line)

Agriculture in Afghanistan. Rebuilding for a stable, secure country

<http://www.fas.usda.gov/country/afghanistan/us-afghanistan.asp>

Retrieved 1 February 2012

APPENDICES

Appendix 1. Interview questions for farming experts

QUESTIONS ON FINNISH FARMING, THE PRODUCTS, MARKETING METHODS AND CUSTOMER SERVICE: TO FINDOUT DEVELOPMENT IDEAS FOR KETTULAN TILA

Products and services

1. What is produced in crops farms in Finland?
2. Which products are produced in the North Karelia region and what are the amounts of production?
3. What is the market situation of the farming products in North Karelia?
4. Is there an over production or lack of products in some products in North Karelia?
5. Which farming products would be needed more now and in the future in Finland?
6. What kind of services Finnish farms provide?
7. Which services farms provide in North Karelia? What are the amounts of services?
8. What is the market situation of the farm services in North Karelia?
9. Are there too many farms offering the same services or is there lack of service providers in North Karelia?
10. Which services would be needed more now and in the future in North Karelia?

Cost efficiency

11. Which factors affect to the cost efficiency of a farm product/service?
12. How cost-efficient are the different products (berries, vegetables) and services when we take into account e.g. the start up costs, the amount of time (in years) needed to wait until the first harvest can be collected; compared to the amount of harvest and profit?

Marketing

13. Which marketing methods are used in farms in Finland/ North Karelia? Estimate the amount of money spent for the different methods.
14. How efficient are the different marketing methods compared to each other?
15. Which marketing methods reach more customers?

16. Which marketing methods affect most to buying decisions?
17. How active the farmer should be in marketing? E.g. have his/her own webpage, contact customers directly etc.

Customer service

18. What kind of customer service farms are providing in Finland/North Karelia?
19. How is the quality of customer service?
20. Are the customers usually satisfied or are they looking for other producers/service providers often?
21. Is there some type of customer service that is rare or lacking but still important in North Karelia?

Appendix 2. Interview questions for farmers

QUESTIONS ON FINNISH FARMING, THE PRODUCTS, MARKETING METHODS AND CUSTOMER SERVICE: TO FINDOUT DEVELOPMENT IDEAS FOR KETTULAN TILA

Products and services

1. How long experience do you have in farming?
2. How long you have had your own business?
3. How big is your farm?
4. What kind of products and services you are offering?
5. Is part of your production organic? Which products?
6. What kind of products and services are needed more in North Karelia?
7. Is organic production needed in North Karelia?
8. Is there over-production or over-providing of services in North Karelia?

Cost efficiency

9. How do you decide which products/services you offer (cost efficiency, market situation, own likeness etc.)?
10. Which factors affect to cost efficiency?
11. Which products you would describe cost-efficient in comparison to others?
12. How do you think that competition is affecting different products/services?

Marketing

13. Which marketing methods you are using and why have you chosen those?
14. Which marketing methods are the most effective?
15. How active you are in marketing? E.g. are you directly contacting customers?

Customer service

16. What kind of customer service you are offering?
17. Do you think your customers are satisfied or should you do something more? What would that be?
18. What is a quality customer service?

Appendix 3. Interview questions for customers

QUESTIONS ON FINNISH FARMING, THE PRODUCTS, MARKETING METHODS AND CUSTOMER SERVICE:

TO FINDOUT DEVELOPMENT IDEAS FOR KETTULAN TILA

Products and services

1. What kind of farming related products and services are you using?
2. What kind of products/services would be needed more? Why?
3. Do you think that there is over production or over providing of services? In which products/services?
4. Are you using organic products? Why/why not?
5. How do you decide which products/services you purchase?

Marketing

6. How would you describe effective marketing?
7. What type of marketing is affecting to your decisions?
8. Which marketing channels are you following normally? How would you describe their effectiveness compared to each other?
9. Do you think that the producer or service provider should be very active? E.g. would you like to be contacted directly?

Customer service

10. Are you getting good customer service?
11. How would you describe good customer service?
12. Please, give an example of bad customer service (preferable based on your own experience).
13. What kind of customer service is needed more?