

Austria Juice's definition of sustainability

Sustainability - a word which is in everybody's mouth nowadays. In fact, in the past 25 years, we have all become aware that our way of producing, living and consuming was irrespective of the natural resources and lacked of humanity and fairness in many ways.

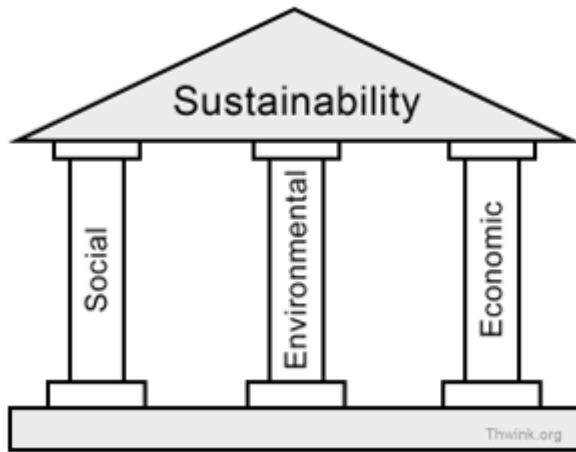
New ways of going forward to the future have been developed since. It applies to any field - blackcurrants are not an exception. What does sustainability mean for big players in this industry, like the juice processors?

We have asked Julia Wurzer from the marketing department of AUSTRIA JUICE, one of the biggest processors in Europe.

What does sustainability mean for Austria Juice?

"Austria Juice interprets sustainability as a harmonious balance of economic, environmental and social responsibility. Based on this, we formulate three principles that sum up our concept of sustainability:

- 1. utilize almost 100% of raw materials and employ low-emission technologies to protect the environment*
- 2. respect all stakeholders and the communities where Austria Juice operates*
- 3. engage in long-term partnerships with suppliers and customers"*



Sustainable sourcing of raw material

It sounds like there is something very interesting for our growers among these principles: long-term partnerships with suppliers. What does this precisely consist in? Julia Wurzer: *"We source and process fruits where they grow and thus reduce long transport ways and supply chains. A good example for this is our Integrated Plantation Project, which we conducted for apples, sour cherries and*



elderberries."

Integrated Plantation Project

"In fact, we had noticed that the availability of apples in Eastern-Hungary kept decreasing since the 1990ies. The climatic conditions for apple cultivation were perfect in this region, though. But the farmers had less productivity than earlier: the apple varieties in their orchards were old and not suitable any more. On the other side, Austria Juice wanted to continue using Hungarian raw material,

having already three factories in this area. We wanted to build up a sustainable and state-of-art apple growing system”, explains Julia Wurzer.

IPP in a few words



Together with a breeding institute and universities, the cooperation model with Hungarian farmers resulted in the plantation of new, perfectly suiting varieties for the region. They have less environmental impact, as they are resistant against the main diseases. This, of course, reduces the need for plant protection products – and therefore results in lower production costs. In total, 900 farmers participated in this programme. They planted a total of 3700 hectares of new orchards between 2000 and 2015. For this, Austria Juice supported them with a 15 years contract and several advisors to support the farmers with their everyday challenges.



“The efficiency of apple production is higher now and we have full traceability of our raw material. We now aim to achieve the transformation into organic production in the framework of this project”, Julia



Wurzer continues.

Sustainability “made by Austria Juice” for blackcurrants



Of course, this does not (yet) concern blackcurrants. But the whole project aims at continuously improving the groupwide sourcing system.

“Of course, Austria Juice also wants to have as much contracted production as possible. It allows us to guarantee the quality of our raw material, have stable prices and guaranteed quantity of fruits. Stability in the market is as important for the growers as it is for the processors.” adds Franz Ennser, CEO of Austria Juice. (read more on the company’s policy in the blackcurrant sector)



Reporting, Standards, platforms and certification

Compliance with laws and regulations is a cornerstone of the sustainable business in general. It also applies to Austria Juice. The processor has a group-wide compliance management system, which governs several topics. These include assistance with compliance issues. Austria Juice is, for example, member of the “Supplier Ethical Exchange Database” (SEDEX). Sedex is the largest collaborative platform for managing ethical supply chain data. Its members can share and manage information related to Labour Standards, Health & Safety, the Environment and Business Ethics. Furthermore, the international supplier evaluation platform Ecovadis assesses Austria Juice’s sustainability performance annually. Austria Juice is also member of the Sustainable Juice Covenant (SJC). As such, they are committed to making the sourcing, production, and trading of fruit and vegetable juices, purees, and concentrates 100% sustainable by 2030.

Product responsibility & innovation

The ultimate goal of the Austria Juice’s quality policy is to produce foods and beverages that are safe for consumer needs. But that is not all: quality leadership in the processing of agricultural raw materials is outlined as the ultimate goal. In order to meet this goal, the company established a certified quality management system. Numerous other certifications for food safety, product protection and

energy efficiency supplement it.

Sustainability in energy and water management

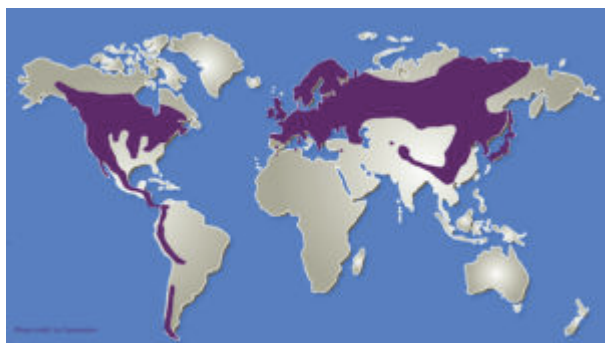
“Austria Juice focuses on continuously improving its production facilities in terms of managing energy and reducing fresh water usage. We also target the reduction of waste and greenhouse gas emissions. Recently, we have invested in high efficiency boilerhouses. We have also established close collaboration with local biogas facilities, as we supply them with raw materials for renewable energy. Finally, we work on the reduction of fresh water water usage by constantly investing in process and technology.”

“Sustainability is an integral part of our company’s philosophy”, concludes Franz Ennser. “We understand sustainability as the balance between economy, ecology, and social issues.”

Climate change challenges blackcurrant growers

Blackcurrant growers all over the world regularly report about increasing difficulties related to climate change. Drought, heat, lack of winter chill and spring frost work their own way and indirectly lead to controlling blackcurrant overproduction “naturally”.

The background



Before we talk about new challenges related to climate change, let's have a look at the basics. Blackcurrants grow naturally in temperate climate. Their home is the region spanning between the tropics and the polar regions of Earth. They need distinct seasonal changes: warm summers and



cold winters.

The blackcurrant is not very demanding in terms of soil, sunshine and water. The natural conditions in its climatic zone are perfect, and the plants don't require special layouts. They just grow - and give a good yield. Mechanical harvesting has developed in the 1980ies and made it easy for growers to harvest huge quantities of blackcurrants within a few days and with very few workers. The juice concentrate business paid good prices for blackcurrants for several years, and growers could earn a good living. It sounds like paradise. Then came overproduction, and what had been a dream world for many has become a nightmare within a few years. The blackcurrant growing surface kept growing, and resulted in overproduction, especially in Poland. This naturally led to lower prices. Today, the situation starts getting back to normal, as the production in Poland decreases little by little and corresponds more to what the market demands.

Climate change - the new challenge

But now come up new challenges - and they are not only related to “new” countries present in the market (which will have an impact on the quantity of blackcurrants and on prices). The “traditional” growers are now facing huge challenges related to climate change. It has only just started, but will bring much more difficulties than a deregulated market. A grower may have a certain amount of blackcurrants in his fields to reach the market’s demand. Nevertheless, weather conditions have a huge influence on the real yield. Therefore, the same grower may one year not be able to have a suitable yield. And in the next year, he may have too much blackcurrants for the needs of the market. No possibility to predict what will happen. Until lately, this was normal, and any agriculturer could cope with it - it was part of the business. Yet, the situation is different today: these natural variations have come into proportions where nobody can be sure to earn his living in agriculture. The collection of harvest estimations within the IBA show it: the yields may vary considerably until the very last minute. And as long as the blackcurrant harvest is not over, nobody can be sure to have the expected



yield.



*A few minutes of hail destroyed the bushes of a blackcurrant grower in Denmark.
This kind of event has an impact not only on the yield in the same year, but also
reduces the yield of the coming years.*

Drought, heat, pests, frosts, hail – there is no limit in the potential problems a grower has to face every year. And presumably, they will change from one year to the other.



blackcurrant field in Germany, where
bushes had suffered from drought



blackcurrants dry out on the bush
and drop just before harvest in
France



blackcurrants cannot stand too much
heat

Warmer winters, more spring frosts

Lucozade Ribena Suntory and the James Hutton Institute have already started to work on adapting blackcurrant varieties to the new climatic conditions (*read further*). It is becoming increasingly difficult to obtain enough winter chill for the plants. Commonly speaking, we can all see that there is less snow and frost in

winters. Whilst most of those born before 1990 and living in the Northern hemisphere always had a few weeks with snowfall every year and at least two or three weeks of continuous frost in winter, this is not the case for the younger generations. It has become rather exceptional. Tourism in the Alps is changing into hiking, and the possibilities for skiing are declining. No doubt, the mean temperature is increasing. At the same time, the variance of daily temperature increases. This also increases the risk of spring frost. This phenomenon is not limited to blackcurrants. But as the blackcurrant bushes are among the first to blossom and set fruits, this - again - is a big challenge for many growers.



Over the past years, we have regular reports from growers who complain that part of their harvest - if not all - is destroyed



within a single night of frost in April / May.

The effects of Climate change on water supply

We can observe a tendency for wetter winters. On the other hand, summers are getting drier, and thus the most important period for vegetation. We have more and more days of big heat every year. At the same time, evaporation increases significantly. As a consequence, the atmosphere is charged with water. This water comes back on the earth in the form of strong rain, thunderstorms and hail. In a very short period of time, the soil should absorb huge quantities of water – but cannot. Most of the water goes directly into the rivers, and from there into the sea. Instead of filling the phreatic zone and keeping the water table saturated. Currently, there is no water management adapting to the needs of all: agriculturiers, industry, drinking water supply and protection of the nature. Everywhere, we need water. And every party has different interests. European countries, whether it is in France, Germany, the United Kingdom, Poland or any other country – naturally have enough water. But still not enough when it comes to the season when it is most needed. This is true also in the Southern hemisphere: a study with wine growers in New Zealand reports an increase in frost and wind, as well as a lack of water.

Pests and deseases

Together with the new climatic conditions come new pests and deseases in the plants. A good example may be the problem of scales, which the French growers had to solve over the past 10 years. For a long time, they were looking for different ways of coping with the pest and eradicate it.



The blackcurrant fields of Burgundy are almost the farthest South in Europe. And although the variety may play a major role in the problem with scales, they now appear also further North. Is there a relation with the climate change? We cannot foresee this yet, but it is a possibility. Together with changing conditions as far as temperatures and humidity are concerned, diseases will develop or decrease accordingly.

Looking for answers to climate change

It has already become evident that biodiversity helps to guarantee a more sustainable way of growing. In several countries, different approaches tend towards this. Some growers in Poland recommend to plant flowers at the end of the rows of blackcurrants. The horticultural advisor of the blackcurrant growers in the United Kingdom recommends to plant hedges around the blackcurrant fields. A grower in France reports difficulties with drought and strong wind - and starts planting hedges to protect the crops. These are only a few examples of what some of the growers already develop. And it gives back hope.



Neverthe

less, there is still a long way to go. But unfortunately, we are running out of time. It is time to act, more than to think. Because one thing is sure: we will first see and suffer from the effects of climate change in agriculture.

LRS and JHI: in hunt for climate-resilient varieties

Lucozade Ribena Suntory (LRS) has invested over £500,000 in a five-year project with the Scottish James Hutton Institute to develop new varieties of climate-resilient blackcurrant.

LRS and the JHI: a long-lasting relationship

On the one side: Lucozade Ribena Suntory (LRS), one the leading soft drinks businesses in the UK and Ireland. On the other side: The James Hutton Institute, a world-leading, multi-site scientific organisation encompassing a distinctive range of integrated strengths in land, crop, waters, environmental and socio-economic science. Together, and of course with around 10.000 tonnes of blackcurrants harvested from British fields each year by the British blackcurrant growers, they keep up with consumer demand for Ribena.LRS, which uses 90 percent of the blackcurrants grown in Britain to make Ribena, has supported the globally recognised James Hutton Institute since 1991. They invested over £10 million to improve the sustainability and quality of British blackcurrant crops.Today, they are up to a new chapter of their common story: the research for climate-resilient blackcurrant varieties, to cope with the changes in the World's climate.

Preparing the future with climate-resilient blackcurrants



Previous research from the Institute has highlighted the threat that climate change poses to blackcurrant farming. As we all know, the plants need a period of sustained cold weather in the winter. Without the winter chill, they yield less fruit and have a shorter lifespan.The UK's 10 hottest years on record have all occurred since 2002. Winters in the UK and all

over the world are getting gradually warmer. This is one of the challenges that all blackcurrant growers will have to deal with. LRS and the James Hutton Institute have agreed to work hard on it over the next five years. They aim to develop varieties of blackcurrants that can cope with these climate changes.

Strong commitment from two highly qualified women

Dr Dorota Jarret, who regularly participates in the IBA activities, is the soft fruit breeder at the Institute's commercial subsidiary, James Hutton Limited, in charge of the blackcurrant breeding programme. "Development of climate-resilient varieties is high on the James Hutton Institute's agenda. Blackcurrants are an important species in understanding the effect of climate change.", she says.



PIC FROM DAVID
MARTIN, FOTOPRESS, DUNDEE
James Hutton Institute-DOROTA
JARRET

The LRS-backed research will also be on the lookout for berries with high anthocyanin levels. This compound gives berries their purple colour. Another focus of the breeders is the natural resistance towards diseases and pests. Harriet Prosser, who works as an agronomist at Lucozade Ribena Suntory, adds: "Sourcing local blackcurrants from British growers keeps food miles low. It allows us to trace every berry back to its field. Whenever someone buys a bottle of Ribena, they can be confident they're helping to support biodiversity on our farms

and research into the most sustainable ways of farming. I look forward to extending the purple patch that we've had with the James Hutton Institute for nearly three decades. We want to make sure that the UK's blackcurrant farmers



have a bright future.” “Together with LRS, we pursue a truly integrated approach. It satisfies the needs of the whole supply chain, from helping to secure the livelihoods of UK blackcurrant growers by improving sustainability of the crop, to ensuring the highest quality fruit for consumer satisfaction. Continuous investment from LRS is a forward-thinking move towards securing the future of the crop and we are delighted to play a part.”, Dr Jarret declares.

Sustainable Blackcurrant growing

This partnership aligns with LRS's Growing for Good vision. It includes commitments to both biodiversity and sustainability in line with the UN Sustainable Development Goal for Life on Land. Since 2004, LRS has worked closely with blackcurrant growers to put in place annual Biodiversity Action Plans. These ensure the protection of our environment as much as possible throughout the growing process. Blackcurrants have been bred at the James Hutton Institute since 1956. They now account for approximately half of the blackcurrants grown in the world. The varieties from this programme, probably the largest in the world, are instantly recognisable as they are all named after Scottish mountains and have the “Ben” prefix. James Hutton Institute varieties have an estimated 95% market share in the UK, and for the last 30 years, the majority of this crop has been used in the production of Ribena. *For further knowledge:*

LRS markets soft drinks brands including Lucozade Energy, Lucozade Sport, Fitwater, Ribena, Orangina and True Nopal Cactus Water. Its business is driven by the Yatte Minahare spirit: the spirit of ambition to dream big, take challenges, and never give up. LRS believes that their role is to have a positive impact on the lives of their consumers by providing them with a responsible choice of great-tasting drinks, enabling them to lead active lifestyles.

The James Hutton Institute has a staff of nearly 500 and 125 PhD students. It takes its name from the 18th-century Scottish Enlightenment scientist, James Hutton, widely regarded as the founder of geology and agronomist.