More awards!

Mark Willems from the University of Chichester was decerned an award for a presentation he gave about his research on blackcurrants and anthocyanin. Congratulations!

Best Scientific Award of Polyphenols Applications 2021

Dr. Mark Willems, Professor of Exercise Physiology in the Institute of Sport, Nursing and Allied Health at the University of Chichester in the United Kingdom, has received this award for best presentation out of 24 invited talks at the 14th World Congress of Polyphenol Applications 2021.

Those among our readers in the blackcurrant family who have already heard him speak about his research during our international conferences can easily understand why. Whenever Mark speaks about the effects that New Zealand blackcurrants can have for athletes and the general population, we feel captivated. Is this only thanks to his enthusiastic way of presenting his research work, or is it because of the amazing benefits of blackcurrants? Maybe a mix of both!

The organizers of the Congress (online - of course) must have felt similarly fascinated following his presentation about "Anthocyanin-Rich New Zealand Blackcurrant: Applications for Exercise and Health". His last presentation at one of our conferences (Angers 2018) can be viewed here.



This area is so interesting but quite complex to examine the mechanisms. I feel we are only scratching the surface for the benefits blackcurrant can provide for exercise and sports nutrition. What we achieved here at the University of Chichester would not have been possible without the support by our University, our link with the New Zealand blackcurrant industry and businesses, and foremost the engagement of colleagues and students.

Dr. Mark Willems

Research on blackcurrants and anthocyanin

Dr Mark Willems has undertaken studies on the effects in humans by the intake of New Zealand blackcurrant powder and extract since 2013. The studies focus on exercise-induced physiological responses, exercise performance, and health parameters. The work has shown the beneficial in vivo effects of an anthocyanin-rich berry with application for athletes and the general population.

Learn more about the health benefits of blackcurrants

If you want to listen to Dr. Willems in real, he is already sure to speak at the 15th annual meeting of polyphenols applications in Valencia (Spain) in September 2022.

CurraNZ best post workout product of the year and best sports nutrition product of the year



Related to the research on blackcurrants and anthocyanin, more awards have been decerned. Not amazingly, it is all about New Zealand blackcurrant extracts. New Zealander Fleur Cushman harnessed the natural power of New Zealand blackcurrant and started the commercialization of blackcurrant extract capsules.

CurraNZ, created and launched in the UK in 2014, has won two prestigious titles at the European Specialist Sports Nutrition Alliance Awards. This marquee award recognises the best and brightest products in Europe. CurraNZ scooped best sports nutrition product of the year award and, for the second year running, the Best Post Workout Product of the Year Award.

These awards add to their 2021 honour roll, which also includes Nutra Ingredients USA Sports Nutrition Product Champion.

For more information and the judges' comments, see the CurraNZ blog.

Blackcurrant growing in Russia

The efforts of the International Blackcurrant Association to establish contacts with Russia and come to learn more about blackcurrant growing in Russia resulted in a round table of the IBA Executive with the Russian Berry Union, Russian researchers and growers.

We are happy to share what we learned with you in a short version in this post. You may also watch the whole content of the round table on youtube (see at the end of this article), or (for our members) see the presentations in our web library.

When the IBA meets the Russian Berry Union

For many years, the whole blackcurrant family thought that Russia was the country that grows most of the blackcurrants in the world. Although only for a domestic market. The IBA has now managed to get in touch and establish good relationship with the Russian Berry Union. The first round table in February 2021 allowed us to share our experiences. The outcome has been amazing for the IBA: in total, Russia's growing surface and yield is far below of what we expected – while the market demand is very high. Now, let's have a closer look into the subject!

1. Industry and market overview

Blackcurrant growing in Russia - an old tradition. But this tradition means mainly that many people grow a few blackcurrant bushes for their own use in their gardens and orchards. Commercial blackcurrant growing is different.

When we look into commercial berry growing in Russia in general, it appears that

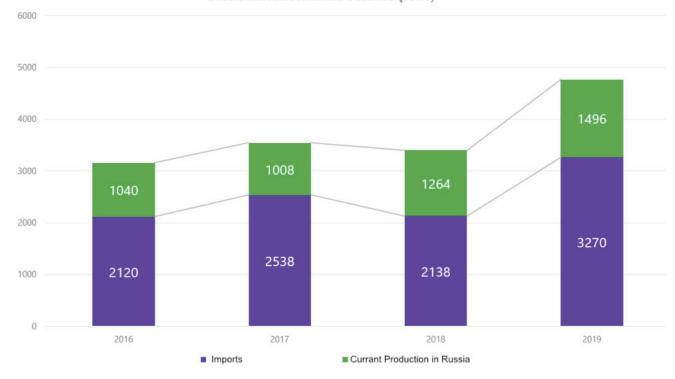
the berry growing surfaces have largely declined over the past thirty years. From 45.000 hectares in 1990 to 15.000 hectares in 2020. Berry growing in Russia includes mainly strawberries (67%), raspberries and blackberries (14%), currants (8%), gooseberries, rowanberries and buckthorn. Unfortunately, there has been no promotion of internal production of blackcurrants (IQF, fresh or processed). This has led to a decrease of 47% of the growing surface of red and black currants within 10 years from 2006 to 2016.Blackcurrant growing in Russia takes place mainly in Siberia and Ural, but also in the Western parts of Russia, around Moscow.



Market review

The blackcurrant market (whether fresh or processed) has increased by 30% in 2019. 67% are imported blackcurrants (over 3000 tons in 2019), and most of the imports take place in the high season for the fresh market. The blackcurrants come from surrounding countries. Mainly, Belarus supplies Russia with currants, and only a small share comes from Moldavia, Azerbaijan and Serbia.

Fresh currant market volume (tons)



Source: <u>FruitNews</u> estimate based on the Federal State Statistics Service of the Russian Federation, 2020 and the Federal Customs Service, 2020.

Russia imports twice as much fresh currants as its own production. The main efforts therefore now go into improving the yields – and thus increase the share of domestic currants in the market.

Difficulties to overcome

But for being successful in increasing the domestic berry production, Russia faces several challenges. The need of efficient and up-to-date plant protection products, authorized in the Russian Federation, is not the only one. It already starts with difficulties in the supply of planting material. As we were told, planting material is mostly self-produced and does not reach the quality standards needed for an efficient production. Furthermore, the lack of knowledge about modern growing technologies, presale preparation and storage of berries increase the difficulties. And finally, when it comes to working in the fields and harvesting, Russia also faces a shortage of skilled staff and seasonal workers.

To sum it up, commercial blackcurrant growing in Russia crucially needs modernization before it can meet the demand of the internal market. Until then, imports will stay a necessity.

2. Key sales channels and quality standards for Russian blackcurrant growers

As we pointed out earlier, reaching the quality standards starts not only with the right land and soil. The Russian blackcurrant growers are missing good planting material and good plant protection products. Many of those used in Europe are not registered in Russia. As a consequence, the yields in Russia are far below the expectations of European growers for their yields. For a Russian blackurrant grower, a good yield for a field with plants of around seven years and with a good irrigation system corresponds to around 2 or 3 tonnes per hectare. This represents only a fourth of a normal harvest in Europe!

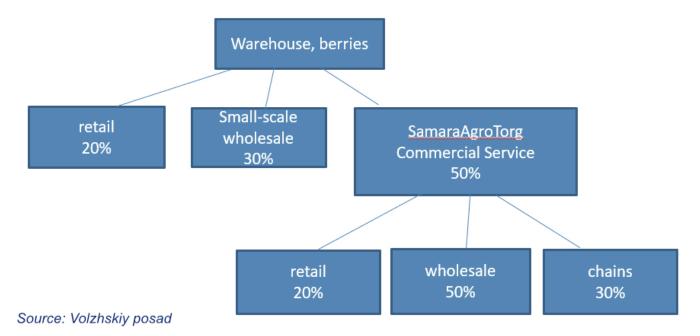
Destination and prices

What is totally different in blackcurrant growing in Russia from blackcurrant growing in all other parts of the World is the final destination of the currants. In Russia, 80% of the yield go into the fresh market. This is the reason why harvesting methods are also in the focus of the growers. They now concentrate rather on mechanical harvesting than hand picking – for price reasons. Of course, harvesting with machines costs eight times less than hand picking. The calculation is simple: for a grower, the cost of one kilo of handpicked blackcurrants is 80 Rubels. This corresponds to around 0.90. For being profitable, he should sell them for 250 Rubels – 2.90. The average price of blackcurrants in the market is of 80-100 Rubels (around 1) per kilo, though. And the price goes down as the season advances.

Blackcurrant sales channels in Russia

Furthermore, storing blackcurrants is of big interest to the growers. Blackcurrants can be stored without specific cooling systems at around 8°C for a maximum of 10 days. This is pretty close to the practices in Europe. There is no solution either for storing our little black pearls for the fresh market. Yet, the fresh market in Europe does not count as much as the fresh market in Russia!

Blackcurrant sales channels in Russia



Finally, blackcurrant growing in Russia struggles with the same challenges than in Europe. Above all others is weeding. Drought and other bad weather conditions have also come into the center of attention lately.

As a conclusion to ever-lasting interrogations, we can see that the situation for blackcurrant growing in Russia is more difficult than in Europe. This is due to the final use of the fruit (fresh market!) and the same climatic and agronomic challenges than anywhere else. Yet, at the starting point with planting material, fertilizers and plant protection products, the Russian growers don't benefit from the same "comfort" than growers in Europe.

3. Most popular varieties for blackcurrant growing in Russia

In its varietal research, Russia concentrates on yield, fruit size and compatibility with mechanical harvest, which is the future for blackcurrant growing in Russia.

Just like in most other countries of the World, people in Russia tend to move towards a healthier lifestyle. They focus on organic and healthy food – instead of fast food. Not surprisingly, berries have a high potential in this market. The average fruit consumption in Russia is of 100 kg per year and per capita. Berries

represent 7 kg. We mentioned that Russia imports the biggest share of the berries. In general, imports represented approximately 50 000 tonnes per year! The growing surfaces have again decreased in 2019, though, and the trend goes on.

Criteria for varietal selection

All recent varieties developed by the Russian Research Institute are suitable for mechanical harvesting methods. Blackcurrants have the advantage of containing many nutrients, and moreover giving a high yield. Mecanisation is possible in almost every stage of the process. This is why they are one of the leading cultures in Russia.

One new variety every year

In the last 20 years, more than 20 varieties have been brought into the market. 11 of them are resistent to mildew, some to gall mite and some to rust. Varieties like **Arabka, Chrivanya, Chernavka** and **Niura** have high potential for the growers. The Institute, alongside the development of new varieties, also provides consultancy to the growers.

4. Blackcurrant growing technologies

Globally, the difficulties to overcome are similar to the ones in Europe. Nevertheless, the climatic conditions in Russia are not the same.

It is in fact important to provide the market with the appropriate varieties of blackcurrants. The goal for the breeders is to adjust to the climate change – and already, several varieties are available. Another solution would be to find new places for blackcurrant growing in Russia.

Climatic challenges throughout the year

Of course, the varieties should be resistent to certain pests and diseases – which is true for any variety in any part of the World. Stress factors in Russia are:

- frost periods in winter (with temperatures that should not go below -5° for too long).
- in spring: frost, moisture in the soil, and big differences in temperatures

between day and night.

- heat threatens the quality and quantity of the yield in summer.
- in autumn: periods of cold without snow.

For cost-effectiveness, aim at 7-9 tonnes / hectare

In terms of cultivation, Russian agronomists recommend to select the varieties according to their production potential. A grower should plant up to 5.700 plants per hectare. A field is cost effective only with a yield of 6-8 tonnes / hectare. In total, 30-50 hectares land are necessary for a culture to be profitable in Russia. To achieve profitability, it is recommended to follow the advice of specialists. The space between shrubs, between the lines, pruning and shaping the shrubs to allow mecanical harvest are essential for success.

A successful meeting

The experience of sharing our knowledge and learn from each other was especially positive during the round table. Almost 5 hours of videoconferencing with simultaneous translation made it possible for everyone to get an insight into each others markets and growing technologies. It opened our eyes and minds, and we will certainly all take profit from this experience in the long term.

As we could see, the criteria for variety selection, growing methods and harvesting (including machines) are very different in Russia. Climate plays a major role for the growers. The requirements for blackcurrant growing in Russia are different from other countries.

On the other hand, the popularity of the fruit itself is totally different. Blackcurrant is a major fruit for Russians, especially as fresh, raw fruit.

Our thanks for a deep insight into blackcurrant growing in Russia go to Irina Koziy - General Director of the Russian Berry Union and Fruit News Information Agency, Irina Kozlova - Leading Researcher of the Federal Scientific Center Michuring, Wladislaw Khanov - Chief Agronomist for horticulture of Sady Privolzhiya of Volzhskiy Posad Group and fruit and berry grower of 1000 ha, including about 80 ha of blackcurrants, Elena Kardapolova - Executive Director of Surgutskoe Co, fruit and berry grower on 2000 ha, including 36 ha of

blackcurrants and planting material supplier, **Anastasia Bakhotskaya** - Researcher of the All-Russia Research Institute of Orchard Cultures Breeding and **Tatiana Zhidekhina** - Deputy Director of the Federal Scientific Center Michuring.

View the full video of the round table

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 ressources 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?

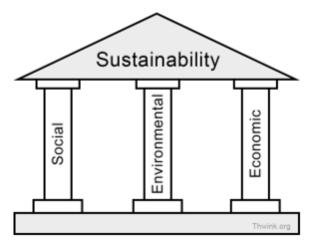
We have asked Julia Wurzer from the marketing department of AUSTRIA JUICE, one of the biggest processors in Europe.

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, prefectly suiting varieties for the region. They have less environmental impact, as they are resistent against the main deseases. 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

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

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: agriculterers, 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, deseases 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 climateresilient 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 climateresilient 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 resistence 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.

Exec meeting around blackcurrants in Austria

Blackcurrant history, Austria

While Austria grew around 4.000 tonnes of blackcurrants in the 1980ies, there are only 200 tonnes per year today. How it came to such a decline is not surprising, and reflects what is happening in many of the (former) big blackcurrant growing countries in Europe. With good prices, an easy and simple way to harvest blackcurrants, more and more growers took their chance to have their part of the cake in every country. And with the opening of the borders to Poland and the entry of Polish crop into the EU market, a big and powerful player entered the blackcurrant market. Austria did not wait and drew the consequences: there was no chance to win. Austria decreased its blackcurrant growing surface, and those who continued... changed, and turned their production into organic. This was in 1990.

Blackcurrants in Austria today

Today, almost all the blackcurrants in Austria are grown organically. Austrian blackcurrant growers thus have the longest experience in organic blackcurrant growing in the world on a large scale. Secondly, one of the biggest concentrate producers in the world has its origins and headquarters in Austria. This raised our curiosity in this country and was the starting point for our Exec meeting 2020.

3 impressive visits

STBOG manages 90% of the blackcurrants in Austria



4.000 tonnes of blackcurrants in Austria in the 1980ies, 200 tonnes per year today: Austria's production declined, but some of the growers found a way to continue. They turned their production into organic in the 1990ies, and 95% of the whole yield is organic today. Most of the growers are in Styria, a hilly region in the South-East of Austria. The "Steirische Berrenobst-Genossenschaft" StBoG (Styrian Berry Cooperative) and its manager Stefan Lampl gave us an insight in their production.

Read more about organic blackcurrants in Austria.

May I introduce AUSTRIA JUICE?



We have met Franz Ennser, CEO of Austria Juice, at Agrana's headquarters in Vienna. Not only because Austria Juice has been one of the longest partners of the IBA since its creation. But especially because he is an expert in the fruit juice business. His long-lasting experience and view of the whole market is always of help.

Read more about our meeting.

Growing and marketing blackcurrants: here comes "RIBES"!



Gudrun and Franz Schriebl have adapted to the changing situation in Austria by investing in growing organic blackcurrants in Austria and selling their own products locally. Ribes is the name of their brand of organic fruit juices and other products, which they sell in their own farm shop. But not only: local supermarkets, restaurants and hotels are part of their

Austria Juice and blackcurrants

Austria Juice, one of the biggest concentrate producers in the world, has its headquarters in Kroellendorf and Vienna, Austria. They have also been partners of the IBA from the beginning and until today. Two good reasons to meet CEO Franz Ennser in March 2020.

May I introduce AUSTRIA JUICE?

For many of our readers, Austria Juice is already well known. This is no surprise, as it is one of the leading fruit and vegetable processors. With its 1000 employees and 250 million € turnover from 15 factories, Austria Juice is playing a major role in the concentrate business. Many may refer to the company under the name of Agrana – which is not completely wrong.

Actually, in 2012, Agrana merged with Ybbstaler Fruit – both companies had the same main shareholder: RWA Raiffeisen Ware Austria AG. Their product portfolio includes fruit juice compounds, concentrates and natural aromas – and thus makes it one of the biggest buyers for European blackcurrant growers. There are five processing plants in Poland, five in Hugnary, one in Ukraine, one in China and another one in Germany. The biggest share of the concentrate business lies in apples (around 80%), but beside other berries, blackcurrants have their role to play.

Austria Juice and the IBA

In 2016, the International Blackcurrant Association has created a working group called "New Product Development Unit". With the support of Austria Juice, this group aims at raising awareness of the multiple possibilities of blackcurrants.

Different events have taken place with its help, like a smoothie contest in the framework of the Tour de France 2017 and a chef's cooking contest for the gala dinner of the IBA conference 2018.



Franz Ennser, expert in the juice business



Former purchaser of raw material at Agrana, Franz Ennser has a 15 years experience in the juice sector. His responsibilities after the merger have changed and now include Purchase, Production, Quality Management and Security, Humain Ressources and Technical Research & Development. He has a clear view of the blackcurrant market:

"There is an ongoing soft decrease in demand for blackcurrant juice concentrate. This is totally in line with the general decline in the juice business. People tend to drink more flavoured waters or sodas. Moreover, the high natural sugar content of fruit juices has become a subject for nutritionists", he says.

According to Franz Ennser, the need for blackcurrants in the juice sector is of 70.000 to 80.000 tonnes per year. It is between 5.000 and 8.000 tonnes for red currants, by the way. The prices for the raw material, of course, depend most on what the end product industry is ready to pay. Unfortunately, this is not much. Everyobody knows that there are enough blackcurrants, and low prices are more important than quality currently.

"Additionally, in the past few years, more and more people turn their back to fruit juices from concentrates. The demand for NFC ("not from concentrate") in the fruit juice business is growing. This is in line with the general trend for healthy, fresh and regional products", explains Ennser.

News and trends in the food and beverage industry

If you want to read more about new market trends in the food and beverage industry, we strongly recommend you to have a look at the Austria Juice website. There is a lot of information to gather which will help you to adapt to the changing market and stay connected with current trends!

In line with the IBA Executive meeting in Austria and visits in Austria, there is a very interesting article about changes in the new EU organic regulation for 2021 and the general trends in the organic market.

Explore much more, according to your field of interest!

Ribes



More than 25 years of organic blackcurrant growing and marketing: Ribes is unique. Its success comes from continuous investment and renewal, good ideas and perseverance of Gudrun and Franz Schriebl, the founders of Ribes.

We have met them in the framework of an IBA Executive meeting in March 2020.

Growing and marketing blackcurrants: here comes "RIBES"!



Growing blackcurrants and aronia, regional production and marketing of their own range of products – this is Ribes. Some of our readers may already know Franz and Gudrun Schriebl. They usually attend our international conferences –

but may be seen as part of the German delegation. Quite normal, as they speak the same language. Most of the times, the Schriebls are the only Austrian growers to attend our conferences. While the Austrian blackcurrant production has been declining dramatically over the past twenty years, Gudrun and Franz decided not to give up. Today, they have found their own place in the market.



IBA Executive meets RIBES



Ribes is the name of the Schriebls' family business. The choice of the name was simple: they grew blackcurrants (*Ribes nigrum*), and they started their product range with blackcurrant products. The couple works together with their son Bernhard. Apart from themselves, only a part time employee for the farm shop and some helpers for bottling during the season work for Ribes.



A blackcurrant story from Styria

Gudrun and Franz Schriebl's farm dates back to 1960. Already in 1990, they started producing their own range of products and turned organic in 1993. "Styria is very hilly, and the growing conditions are not easy. We could not compete with regions where the geographic conditions are much more positive. This is how we decided to start our own production of fruit juices", explains Franz Schriebl.





The Schriebls grow their own blackcurrants (mainly variety Tisel, which is the best choice in this area) and aronia. But they also buy blackcurrants from other growers in the same area, together with apples or pears. "We don't concentrate any more on growing. In fact, it takes too much time for the three of us, and our focus today is clearly on marketing our products", Gudrun explains.

Their market is mainly local: restaurants and hotels, local supermarkets and a farm shop for direct sales. They produce still and sparkling products in glass bottles.

Challenges in organic blackcurrant growing

"For the agricultural aspects, we do what we can – but it's not enough", Gudrun explains. She looks embarrassed while the IBA Executive has a look at her plantation. All those who have already tried know that organic blackcurrant growing is a tough job. Weed control is the biggest challenge, very time consuming and frustrating.

"We have planted horse beans between the rows to increase the amount of nitrogen in the soil. Between the plants, we try to keep control over the weed with Chickweed in spring and Galinsoga in late summer.

"We use a Greenmaster at least four times a year for doing the weeding", says Franz. "Of course, we should do more to increase the yield, but it's impossible, we are not enough people. Therefore, we keep doing what we can to secure a part of our juice production and have control over the quality. But for another part of the fruits, we prefer buying them from other growers in the region."





Organic blackcurrant juice and more

The juice production is the main part of Ribes turnover. They only produce NFC juices – and only organic. The pomaces that are left from the pressing process are dried, crushed and sold for teas and more.



The Schriebls are proud of their juice production area. Sophisticated fruit presses with an extraction capacity of 80-90% can press between 700 and 800 tonnes of apples per year. Blackcurrants and aronia represent less. The produce goes into glass bottles only – a trend everywhere in Austria today.

Some twenty years ago, glass bottles were the new "old-fashioned" way of packing fruit juice. Today, the one-liter-bottles for juices are "Mehrwegflaschen" – bottles that can be used several times. As they are the same for all the producers, the consumer can buy them anywhere from anyone, and hand them back anywhere to anyone with a pawn system.



"Our transforming capacity is of 200 tonnes per day – or 60.000 bottles per day. We also sell juice to Agrana", mentions Bernhard Schriebl, who graduated as a

fruit juice maker a few years ago and is a specialist in this field.

Franz and Gudrun Schriebl are independent from the Austrian cooperative StBoG, as they use their whole production for themselves.

And as we could see, Ribes represents another prosperous way of marketing blackcurrants in Austria – and another success story of grower / producers in Europe. The trend to local production and consumption is still increasing and promising for the future of Ribes.

StBoG - the Styrian berry cooperative

4.000 tonnes of blackcurrants in Austria in the 1980ies, 200 tonnes per year today: Austria's production declined, but some of the growers found a way to continue. They turned their production into organic in the 1990ies, and 95% of the whole yield is organic today. Most of the growers are in Styria, a hilly region in the South-East of Austria. The "Steirische Berrenobst-Genossenschaft" StBoG (Styrian Berry Cooperative) and its manager Stefan Lampl gives us an insight in their production.

STBOG manages 90% of the blackcurrants in Austria

The IBA Executive decided to see how the Austrians grow and market blackcurrants. Our trip thus leads us from Vienna airport to Graz, the capital of Styria in the southeast of Austria. Styria is not far from the Slovenian border. Stefan Lampl, the head of the Styrian Berries Cooperative (StBoG), welcomes us at their headquarters in Liboch.

If you have a look at the cooperative's website, you may be surprised at first sight to see no blackcurrants or any other of the usual berries, but... elderberries.



"We are the only cooperative in Austria to deal with blackcurrants and elderberries. 95% of the growing surface of our members is planted with elderberry bushes: this represents 1200 hectares. They belong to around 350 growers. But their number is decreasing", states Lampl.

The StBoG has members from Styria, Lower Austria and Burgenland (around Vienna), where they grow black, white and red currants, aronia, and of course elderberry. Their production is mainly organic, and goes to almost 200 customers. In fact, 75% of the yield has to be delivered to the cooperative.

"Our role as cooperative is to control the production and organize the harvest in our 18 collection points. From there, the harvest is delivered to Beerenfrost in Liboch. This company provides technical services like cooling, storing, destimming, but also does the quality management", explains Stefan Lampl. From the window of our meeting room, we can see the Beerenfrost facilities: 94.000 m3 of stocking capacity! Beerenfrost and StBoG have a longlasting partnership and share their offices – Beerenfrost is the main customer for the Austrian berry growers.

More elderberries than blackcurrants

Austria has specialized on more than berries for juices or juice concentrate. Their core business is superfruits: aronia, elderberries and blackcurrants in Austria are organic and go into the production of teas and extracts – health is the keyword here. And some of them have their own production which they sell locally.



The biggest share of the cooperative's products are elderberries and elderflowers – all handpicked! Karl Kienrich, one of the growers we met, has 7-hectares elderberry plantation, where he harvests the berries from mid-August till end of September. "We plant 500 bushes per hectare, and we have a yield of 15-20 kg per bush. This makes an average yield of 6 to 7 tonnes per hectare", he explains.



They are used for making extracts, and mostly go to other countries. Exports represent 97%. Practitioners of traditional medicine have used elderberries for centuries. They have a high vitamin C content, and many use them to prevent minor deseases such as flu and colds. "The demand hasn't stopped from growing over the past few weeks", smiles Stefan. "With the threat of an infection from Coronavirus SARS-CoV-2, the market is blooming for superfruit extracts and juices. People want to boost their immune system."

StBoG manages superfruit production



The Austrian growers and cooperative have found a sort of equilibrium for their production, which is difficult because of the location of the plantations in a very hilly region. Impossible to compete with growers from other regions in Europe, where blackcurrants can be planted and harvested on a large scale.

Most of the grower members have come back to a polycultural way of producing, with several sources of revenue. Their focus is not only on berry growing (red and black currants, elderries and elderflowers, blueberries, aronia), or other fruits like apples, but also on pig-farming, wood economy and more.

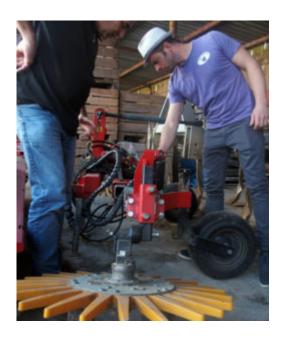
STBOG member "ARONIA-BAUER"

On Aronia-farmer Christoph Reinhart's farm, he and three more growers of the cooperative explain us about their way of growing blackcurrants organically. Varieties Ben Hope, Tisel, Ben Finley and Zusha are planted on different fields over 10 hectares.





Christoph fertilizes with pigshit. And like any other organic blackcurrant grower, he confirms that weeding is what prevents good yields. Even with legumes or grasses sewn between the rows. Handweeding is normal, but he also uses a finger-picker machine of 70 cm, before cutting the grass between the rows. He needs to repeat this between six and eight times per season – fastidious, time consuming and still there are weeds left. Sulphur is not authorized in organic production in Austria. And he has to spray bacillus thuringensis against winter moths.



Last but not least, Austrian berry growers have started facing problems with scales like the French growers. They have tried to increase the pH with the use of calcium and magnesium hydroxide. Vice president Florent Baillard from France had lots to add from his experience in France, where scales are currently under control thanks to the use of chemicals. But this can, of course, not be used in organic production. Rhyzobius from the lady beetle family may be a good solution, though.



With 4 tonnes per hectare, Christoph Reinhart has his average yield. He uses it partly for the production of his own juices, together with several aronia products, sold on his farm in a nice little shop.





Thank you, Styria!

In sum, it looks like Austria has managed to transfer knowledge about conventional growing to organic growing and regional marketing. They do not have a huge influence on the world's blackcurrant production, but can be seen as an example.

Our visit to StBoG has been exciting - not to forget the famous Austrian hospitality! We now hope to be able to present their production in more details in one of our future conferences.

Genjiro Katayama awarded IBA honorary member

In its ten first years of existence, we did not have any IBA honorary member. The time has now come to acknowledge our gratitude to one of our most deserving members.

In 2020, the International Blackcurrant Association has therfore awarded its first



Honorary Life Membership to Genjiro Katayama.

Genjiro Katayama and the IBA

Genjiro Katayama first met the members of the global blackcurrant "family" in 2008, when delegates from more than 14 countries attended the world's first global blackcurrant conference in New Zealand. Katayama was approached by New Zealand growers to assist develop the conference so that it could become the starting point for a unique international organisation. Katayama agreed to be a major sponsor, assist with the planning through his own team, and also to address the delegates with his perspective on how countries could work together to each achieve more for their members and for their societies.

His plenary presentation was a significant factor in creating the mindset that the

many diverse countries could achieve much more by working together. The result was the 2009 conference in Copenhagen and the creation of the embryonic International Blackcurrant Association. At each and every conference since then, Genjiro Katayama's company has been a major supporter and sponsor of the IBA.

IBA honorary member Genjiro Katayama's background

Genjiro Katayama was born in Japan in 1959. He graduated from Konan University in Japan with a Law degree, majoring in Law, and has been involved in business management since he was a university student.

Success in business led to his establishing many corporations and he has held various Director/CEO positions. His companies include: Japan Food and Chemistry; Jasbco (Japan Social Business Consulting); Digital Standard; and most well-known to members of the IBA – **Beneseed.**

His business domain covers a wide range of fields, including medical and health, regional revitalization, system development, entertainment, and finance. He is especially interested in the positive dynamics of relationships between related organizations, and between his beloved Japan and other countries.

Philanthropist Genjiro Katayama

In 2019 Katayama was made a Visiting Professor (New Business Creation Theory / Venture Business Theory) of the Faculty of Business Administration, Tokyo Fuji University. In this role he explores, with his students, the theme of "the fusion of learning and business" so that "business is a successful, ongoing dynamic learning environment always relevant to the future". He has authored books such as "Live out today with all the might" (*Hojosha*).

Notably, when he was 23, his father fell ill and became bedridden.

Since then, for 22 years, Katayama has been caring for his father at home. This personal family experience taught him the potential fragility of humanity. From his own experience he decided to contribute to society through his own business success being based on sound and ethical practices, and a sense of "family and

social harmony" within his company structures.

Creation of the JBA

In 2016 Katayama established the Japan Blackcurrant Association. This organisation works to help humanity benefit from the inherent natural goodness in the blackcurrant fruit.

Blackcurrants: More to offer than we think

For several years, the IBA has had pleasure in listening to the presentations of Mark Willems. In fact, his research at the University of Chichester (United Kingdom) has lead to astonishing findings on the antioxidant effects of blackcurrant. The ongoing research on the reduction of oxidative stress during exercise (and more) is captivating! Here is a bit of what he wants to share!



Mark Willems (University of Chichester)

Health benefits from antioxidant properties of the blackcurrant

When you hear or read that eating blackcurrant is good for you, they mean normally that it is good for your health. And yes, most of us can expect health benefits from blackcurrants (and other berries). Provided that we consume them as part of a balanced diet, of course. We think that it is the antioxidant properties of blackcurrant that are associated with the health benefits. And there is a role for the anthocyanins.

Anthocyanins - the center of attraction

The anthocyanins, but also the anthocyanin-derived substances that appear in the blood, change the function of cells in humans. This is how they give us the health benefits. However, what is less appreciated is that anthocyanin-rich blackcurrant can also provide changes in the function of cells that are beneficial when humans exercise.

Antioxidant properties and exercise

About 7 years ago, we began exercise physiology studies at the University of Chichester in the United Kingdom. Until 2013, only one study from Plant & Food Research in New Zealand, had examined effects of blackcurrant intake **after** exercise. And that was in 2009!

We in Chichester focused on effects **during** exercise. Research showed that the intake of blackcurrant in endurance trained athletes lowered the presence of lactate in the blood during exercise. Because lactate is the consequence of the breakdown of glycogen (basically a form of sugar). This led us to believe that we use more fat as an energy source during exercise. Indeed, this was shown in endurance trained and physically active men and women during 2 hours of cycling but also during 30 minutes of brisk walking. We have also shown that blackcurrant can better exercise performance from high-intensity repeated sprints to cycling as fast as you can the distance of 16.1 km.

At this time, we are still not sure what is causing these effects by intake of

blackcurrant and there may be a role for the antioxidant properties. So basically, anything that is the result of oxidative stress may benefit from the antioxidant properties, in effect working against the oxidative stress.

Positive effects while ageing

One of our recent studies showed that blackcurrant reduces the production of 2-nonenal. This is a so-called volatile organic compound emitted by the skin and produced by oxidative stress. What is even more important is that 2-nonenal is a compound that is causing the body odour in older people. There is also evidence now that blackcurrant can reduce blood pressure in older adults. Globally, you can see that the research on blackcurrant has provided some remarkable findings with application for sport and exercise. But likely also for well-being. There is still so much to explore, and I expect that more scientists will take interest in examining the effects of blackcurrant in humans.

Blackcurrant has still more to offer than we think.

Professor Mark Willems

University of Chichester, United Kingdom

https://www.chi.ac.uk/staff/professor-mark-willems

For more information on the health benefits of blackcurrants see our section dedicated on Blackcurrant – the stress hero

Further reading on the research of Mark Willems (and more)

Blackcurrant media star

worldwide

Starring blackcurrants

When it comes to promoting our little black currant, many growers, transforming companies and research institutes benefit from a good partnership with the press. Some inform the IBA and share the links to the coverage they obtained. Our General Manager also find other media content through search engines and publishes the links. The IBA is trying to publish articles, links and videos about blackcurrant media star in its press review. Here is a bit of what we have received. You can also access more articles and films in our press review!

You may also want to share something - feel free to do so by sending it to manager@blackcurrant-iba.com. And continue to work together with the journalists all over the world to bring blackcurrants on stage!

Blackcurrant media star in Germany

Together with not less than Coca Cola Germany, IBA member Andreas Kolb (a German blackcurrant trader) brought blackcurrants online. The purpose is to share knowledge about the production of one of the Coca Cola products. Coca Cola Vio is a soda made of blackcurrant juice and sparkling water "made in Germany". The coverage includes a film about a blackcurrant harvest. It has been carried out with growers Sabine and Wolfgang Gebert and Klaus Keinert. The film is now available together with the story of the product and general information about blackcurrants on the company's website. A nice partnership and a great result!

Blackcurrants and Kiwis



In New Zealand, Jim Grierson (former blackcurrant agronomist) and David Eder (former blackcurrant grower) have united their strengths. They are now comanaging Vitality, a company that produces food supplements made with blackcurrants. The company received, by the way, a reward as start-up of the year 2019!

We all know that the blackcurrant has numerous health benefits. Jim and David have worked together with researchers from Auckland University. They who proved that blackcurrants have anti-ageing properties. This is mainly due to the polyphenols they contain. "Brain shield" is the name of the product they launched, and which has been highlighted in a well managed press coverage Down Under.



Blackcurrants in the fjords

On the complete opposite side of the globe, a couple of Norwegians are growing blackcurrants where noone would expect them to grow. But if you ever make a hiking tour in Stadlandet, a region as far North as Iceland, Groenland, the Northern Territories of Canada or Yakutsk in Siberia, you may well come across their blackcurrant plantation. They also produce a few products which you can purchase on your way through the fjords. Another amazing story about blackcurrant media star found on NRK!Check out the other films, stories, articles in our press review and make your own buzz around blackcurrants with YOUR media partners!