

Customer Experience Center

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A look behind the scenes at the Customer Experience Center

‘Back to basics’ for future-proof cultivation

Double interview with David Fousert and Marijke Folkers



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“Not only a strong team, but also a clear vision and strategy

During the past weeks and months, thanks to the efforts of many of you, I have had the opportunity to get to know Avebe, its employees, its history and its members. I have learned a lot from this and been personally inspired by it. A superb company with superb people! One thing stands out for me: Avebe is in good shape.

We have a strong team of people with a great deal of knowledge, passion and commitment to Avebe and its members. This is also reflected in the solid result for the past financial year, which is in line with our strategic objectives and was achieved despite some significant challenges in our market.

This year is also characterised by such challenges. As I write this foreword, we are waiting to see how the common agricultural policy and the regulations relating to environmental and climate objectives will ultimately be shaped. Also, we are seeing a sharp rise in the costs of energy, transport and consumables for Avebe and our members.

‘Agility’ is a word we are hearing a lot these days. Are we agile enough to deal with the changes and challenges in the market?

The fact Avebe and its employees have recently demonstrated their ability to surmount challenges gives me every confidence that we are! We not only have a strong team, but also a clear vision and strategy that emphasises getting things done and will ensure that we can continue to create a strong foundation for the future and deliver results for Avebe and its members in the short term.

Let’s make this another good year together.

I trust that you will enjoy reading our magazine, and also wish you a period of reflection and rest during the upcoming holidays.

Many thanks for all your efforts !

David Fousert



Working together on reducing waste streams.

Tjarda and Thijs-Jan Hoving

The starch potato is Royal Avebe's main commodity, but the factories are supplied with much more than potatoes alone. Every load comes with tare: soil, stones, straw, leaves, grass clippings and maize remnants, for example. This causes a considerable waste stream that forms part of our ecological footprint. It also results in additional costs. Avebe is working with growers and shippers to reduce the amount of tare.

Reducing the environmental footprint is one of Avebe's strategic goals, and one way to achieve it is by reducing waste streams. Soil, foliage, straw and stones are of natural origin, but are classified as waste under legislation when they are delivered to the factory with the potatoes. Government regulations require that waste, including tare, are sampled for quality in order to determine where it should go. The target for 2023 is to reduce waste streams from tare by 25 per cent compared to 2017/2018. With the current efforts, we are on track.

Efforts

Tare also represents a significant cost item. Various actions are taken to reduce the amount of tare and, accordingly, the costs. This starts as soon as the loading and transport of the batches of starch potatoes.

A cleaning machine cleans the starch potato batches before they are loaded onto the truck. “Before then, growers have already made efforts to reduce the amount of tare,” says Willem Rus, Programme & Improve Agro at Avebe.

“By selecting fields, working the land and, as far as possible, harvesting during favourable conditions, but also by storing the potatoes under optimum conditions. For example, when delivered from the field between mid-August and mid-October, the batch can be covered with a fleece. If deliveries are made later, in the colder months, the batch should be covered with straw.”

Sustainable sales

On average, tare consists of eighty per cent soil, twelve per cent organic matter and eight per cent stones. “We dispose of the tare stream sustainably as much as possible,” says Willem. “We use the soil for the construction of sound barriers and dikes, for example. The green waste is composted and stones go to a rubble crusher to be used in road building.”

Advice and information

Avebe is working on reducing tare with demonstrations, advice and information for both growers and shippers. “Factors such as soil type and weather conditions have limited influence,” he explains. Profits are mainly to be found in harvesting and loading



Willem Rus, Programme & Improve Agro at Avebe

techniques. “Growers are aware that a low tare level helps the performance price,” says Willem. “Growers pay a contribution for the percentage of tare in their batch. We now have a tare-free base of three per cent, which was previously four per cent, paid for by the collective because everyone can be affected by changing weather conditions during loading. The contribution per scale has been increased on the basis of the ‘polluter pays’ principle. The cost of disposing of the material is going up and it is in everyone’s interest that we meet our target of a 25 per cent reduction in tare. We need to work together as a chain.”

“Increased contribution for growers is a good incentive to prevent tare.”

Thijs-Jan and Tjarda Hoving are arable farmers in Nieuwe Pekela. They have a farm of 120 hectares, on half of which they grow starch potatoes. “We do everything we can to limit the amount of tare,” says Thijs-Jan. “It costs us a lot of money and the factory as well, so we end up paying twice.”

The storage after harvesting is one of the places where Thijs-Jan and Tjarda can influence the amount of tare. “We often make two or three deliveries from the land. We then cover the potatoes in the field with a Toptex cover to protect them against changing weather conditions

and so on. After a few days we cover the potatoes for the short storage period with straw until they go to Avebe. This allows the potatoes to dry properly and prevents them from turning green,” explains the grower.

The time of field cultivation and harvesting is also decisive. Thijs-Jan: “If you start the spring work too early, for example, you create more clods. That costs you money, you have to be alert to it.”

Tjarda explains: “At meetings we’re sometimes shown pictures of tare, which can be quite shocking. If a grower delivers

a first batch with a lot of tare, they should be contacted immediately by Avebe to find out what’s wrong.”

Thijs-Jan and Tjarda consider the higher contribution paid by growers for higher tare percentages a good incentive.

“You only harm yourself if you’re too easy-going about tare. The rates are the same for everyone and at the end of the day, we have to work together to ensure a good result.”



A year of extremes.

René Speelman (30) has an arable farm in Eerste Exloërmond with his father Jakob. On 110 hectares they grow starch potatoes, sugar beets, onions and grain.

There is also a contracting branch that includes the sowing of over 200 hectares of onions. On a smaller scale they take care of the complete onion cultivation for colleagues.

Drought versus flooding

“2021 is a year of extremes. The season was cold, wet and windy; finding good spraying times was difficult. Yet we were lucky in terms of rainfall and no crops have been flooded this year. Our farm is located in the middle of the Drenthe peat colonies (Veenkoloniën) and is situated quite high. Our soil is therefore quickly too dry, while at the ends of the village the soil is much more humid.

Because of the cold spring we only started planting in mid-April and we started harvesting in mid-October. In terms of temperature it really was a potato year, but due to the lack of sunshine I still expect a moderate to normal harvest. The early potatoes in the district varied quite a bit: 32 to over 40 tons per acre.”

Storage

“Our potato barn from the 90s is not suitable for long term storage. The

potatoes we store in it are therefore collected in February. Although the insulation is good, this barn lacks ventilation capacity and automation. Due to the lack of automation, we have to manually control the ventilation in this barn. As a result, we sometimes miss the right moments. Especially in the spring when the weather gets warmer, it is important to let the coolness in on cold nights. With integrated automation you make sure that the computer controls the ventilation itself. To store potatoes and onions for longer, we built a new barn in 2017, especially equipped for long storage. We can store 1400 tonnes of potatoes in here and thanks to the good insulation and ventilation we keep weight loss to a minimum. We aim to deliver in the second week of May, so as late as possible.”

“Because we store all the potatoes, we only plant varieties that are suitable for storage: Altus, Avarna, BMC, Festien

and Supporter. The use of a sprout inhibitor form the basis for a good sprout rest, so we spray with sprout inhibitor as standard. We used to only spray the potatoes that were kept until May, but for the past two years we have sprayed them all. It’s a hefty cost item, but it greatly reduces moisture losses. An additional advantage is that by spraying successfully the harvesting losses in the field barely germinate the following year.”

Cold and wet

Disease levels are another point of attention for the years to come. After three dry years and few problems with the fungus phytophthora, this year the level was unprecedentedly high. The environmentally friendly crop protection product Zorvec, for example, sold out very quickly. This year was the last growing season that the agent Mancozeb was allowed and I’m very curious how this will work out in the future.

Pilot for hybrid working at the Innovation Center Groningen.

In recent months, many countries have phased out the corona measures. As soon as working entirely from home is no longer mandatory, the question arises of how and especially where work will be done in the future.

This is also the case at Avebe, where a pilot is being launched in the Netherlands to gain practical experience of hybrid working. Flexibility regarding the work location and working hours is central to this.

Marc van der Aa is project manager and tells us about the plans: “What happens if you combine the best of both worlds?”

What are the pros and cons? That’s what we want to know. After a year and a half of being forced to work from home, many organisations have come to the conclusion that working from home is better than they thought, and even offers advantages. This is exactly why Avebe is starting a pilot project on hybrid working at the Innovation Center in Groningen. “We have recently seen that the outcome of your work often does not depend on where and when you do it. That is why we now want to find out what hybrid working can mean for Avebe. One colleague is more tied to a location than another. We take the work done by employees as a starting point and during the pilot we will look at what works best. We will share experiences, discuss the pros and cons with the ultimate goal of permanent implementation at Avebe. But only where possible: we know that hybrid working is not possible in all parts of the organisation.”

Home working more productive

As a starting point Avebe conducted an online survey. Marc: “We did this to get a clear impression of what our colleagues want. We asked employees to share how they have experienced the past period. What do they see as the pros and cons of hybrid working? The vast majority of those questioned are positive about hybrid working. Employees report being more productive when they work from home. Less travel is another frequently cited benefit. On the other hand, they miss direct contact with

colleagues and it is more difficult to keep abreast of what is going on. Marc: “Hybrid working also demands something from our employees, of course, such as taking own responsibility and more planning. That is also something we have to take into account.”

So many people, so many wishes

Based on the results of the pilot, Avebe will take steps to further facilitate hybrid working. “We ask managers and their teams to discover what works comfortably and efficiently. Needs will vary. It’s up to the teams to decide what to do centrally and what not to do. Perhaps unused workstations will be given a different function in the future. Once the pilot is complete, we can introduce structural (or more structural) solutions and make hybrid working at Avebe a success.”



Young growers focus on potato breeding.

A total of 35 companies in five different German states are breeding potatoes in cooperation with Avebe's subsidiary Averis. The area extends from the Baltic to Helmstedt. Cultivation, storage and processing present a number of challenges. Nevertheless, as the young growers Leon Klaucke from Trebel and Alexander May from Henstedt-Ulzburg have shown, potato growing is a rewarding and future-oriented branch of agriculture.



When Leon Klaucke, 25, joined his parents on the farm, he established potato breeding as a branch of the business.

The Klaucke farm has been growing starch potatoes for Avebe since 1987. "We were one of the first to produce for the Avebe site in Lüchow. We immediately started with 24 hectares of starch potatoes," says the entrepreneur Leon Klaucke. In total the company cultivates 500 hectares of land. Potatoes are grown on 260 hectares, 200 hectares of which are starch potatoes and 60 hectares for breeding. To maintain a healthy crop rotation, the company also cultivates leasehold land and exchange land. "Thanks to our second farm location in Saxony-Anhalt, we were able to significantly expand the potato crop in 2015," explains the young farmer. In addition to potatoes, the Klaucke family also grows cereals and maize.

Resistant varieties

The company breeds the varieties Axion and Avamond, as well as the waxy varieties Karli and Henriette. "Our goal is to be free of nematodes in the future as well. That is why we rely on Averis varieties, with resistance to potato wart disease and potato cyst nematodes", says Leon. His crop advisor at Avebe, Ulrike Ziervogel, who has also been providing crop support for seed potato breeding for two years, explains: "With the varieties Axion and Karli, the nematodes can no longer multiply at the roots and any nematode infestation is also reduced. The high level of nematode and wart disease resistance of the Averis varieties will be supplemented in the future by high virus resistance in the new varieties. At the same time, Averis is also working on varieties that are resistant to the phytophthora fungus. We expect the first approvals in the near future. The Averis range aligns very well with Leon and his commitment to using fewer crop protection products to reduce costs and operate sustainably."

Attentive sorting

The farm harvests about 70 per cent normal sizes and 30 per cent smaller and oversized potatoes annually. "When sorting, great care must be taken not to start too early, so that the potatoes have the optimum germination condition at the time of planting," Ulrike says. "Leon has the great advantage of mechanical

cooling, which allows the potatoes to be stored for much longer. Upon delivery, they are sorted further and further to always offer the customer potatoes at the right germination stage.” Temperature and humidity have a strong influence on the quality of the seed potatoes. Therefore, extra attention is paid to optimal storage.

Long term commitment

The Klaucke family is currently not considering expanding its breeding business “Due to the political situation, it is unclear what restrictions will be imposed on agriculture. Therefore, we are not planning any further investments for the time being. I hope the varieties become even more robust so we can farm sustainably and reduce the use of crop protection products.” Leon sees Avebe as the perfect partner, because of the total concept with Averis, the traceability and the well-planned logistics. Ulrike Ziervogel also stresses: “It is important for us to build long-term relationships with farmers. That’s why we sign contracts for two to three years. This makes it easier for the seed potato grower, the seed potato buyer and also for Averis to plan.”



Alexander May, 31, added potatoes to his own farm in 2018. He farms 900 hectares with his family in the south of Schleswig-Holstein.

Alexander May: “My goal was to introduce a new crop on our farm to increase biodiversity with crop rotation. That is why I chose to grow potatoes”, Alexander May from Henstedt-Ulzburg explains. In 2018, the young farmer grew potatoes for the first time on 8 hectares. Starting with starch potatoes, the following year he also started growing seed potatoes. “We used to only have grains and beets on our farm. But I wanted to try something new. As I had already been in contact with Avebe during an internship, I called them directly and that is how the business relationship started,” explains the young grower

Close partnership

“It was great for us to work with such a young and dynamic partner who is completely new to this branch of agriculture,” says Henning Heuer, who has been coordinating Averis’ seed potato propagation in Germany since 2014. Meanwhile, 50 hectares of starch potato cultivation and 50 hectares of propagation

belong to the May family. “We rely on the Axion breed and the waxy breed Karli. So far we are very satisfied with the yield,” Alexander says. “The varieties are very attractive to growers because they have high starch yields and at the same time offer good resistance,” adds Henning. >>

Healthy soil

On the farm, there are hardly any problems with nematodes or virus levels, which is partly due to the choice of varieties and partly to the location. “We’re very fortunate. So far, hardly any potatoes have been grown on our land. We would like to keep it that way, so we want to set up a crop rotation of six or seven years,” says the young farmer. Henning Heuer is confident: “The fact that the potatoes are first grown on May family land ensures a very high standard of health.”

Average season

In 2021, the entrepreneurs built a new warehouse with sorting, storage and

cooling facilities. There is room for a maximum of 2700 tonnes of potatoes. Thanks to the new system of box wall ventilation, the potatoes can dry faster, thus preventing quality loss. Storage diseases are also kept to a minimum. The goal is the highest possible percentage of saleable products. Alexander expects an average harvest: “This is probably due to the weather. At the beginning of the year it was very cold and wet, so we only planted in May. For the harvest, we hope for a dry autumn.”

Sustainable agriculture

Seed potatoes generally use less nitrogen than consumption crops. Such sustainable

aspects are also important for the young farmer: “It’s important to think about the future, so we work with wide crop rotation to prevent diseases.” He has Henning’s full support in this: “For us it is important that our farmers can grow starch potatoes today and in the future. That’s why Averis breeds resistant varieties that are sustainable and work well in the long run.”

Lamp TOVVEL, tough, stylish and compostable

Potato starch as a multifunctional product

Evelien Kamphuis is the founder of Springt Design. The company makes interior products that make you feel at home. An important condition is that these products are biodegradable, recyclable and robust. And why not use starch potato for that?

Evelien: “Almost all the arable farmers around me grow starch potatoes for Avebe. It always intrigues me how many different things you can make with it. It also seems like a logical replacement for some of our commonly-used plastic. But I had never come across it in a shop. That’s why I started experimenting. Isn’t it great that we can grow such resources ourselves?”

After a few years of pioneering, the first product was born: TOVVEL; a lamp made of potato starch. This was preceded by an extensive search and many test sessions for suitable production methods, lamp shapes and corresponding raw materials in semi-finished products. TOVVEL is a Groningen word for potato. The lamp comes in three models, is biodegradable, made of potato remnants and made in Groningen. “I’m proud of the result! The lamps look great and the first orders are in. Besides the lamps, we



are working hard on new interior products. We want to make our customers feel at home, but without losing sight of the environment. Because if it can be done in an environmentally friendly way, why not do it that way?”

Want to read more? Visit springtdesign.com



Our new website is live!

Two new shapes and colours were recently added to Royal Avebe's corporate identity. We are proud to tell you that the English website is now also online with the new look & feel. The new website is user-friendly and focuses more sharply on the markets and our clients. The Dutch version will follow soon.

Apart from the look, the functionalities of the new site have also been tweaked. Innovation and Sustainability run through the strategy like a guiding theme. Those subjects are now easier to find on the website and play a more prominent role in our narrative. We say more, but use less text and more images. If you haven't seen the website yet, check it out by scanning the QR code below.



Test fields for starch potatoes also viewable online!

Last year Royal Avebe started the 'online demo field' during the corona pandemic. This website provides all information about the trial and demo fields. This makes it possible for starch potato growers to still gain all the knowledge and information they need about new varieties, fertilisation and sustainability online. The website is also available in Dutch and German and was well-visited last year. The feedback from our growers was positive! We therefore decided to put the demo fields online again this year. All tests that have been set up this spring in the Netherlands and Germany can be found on the website. You can also view the 2020 trial and demo fields.

Interesting tests have been carried out in both the Netherlands and Germany. Many of the trials are aimed at sustainable cultivation.

Take a look at demo.avebe.com.



Farewell to Bert Jansen



“It was the best job I’ve ever had.”

On 1 October Bert Jansen left Royal Avebe after more than 13 years as chairman of the board and CEO. Under his leadership Avebe became a financially strong company. The strategic change he set in motion has made Avebe a cooperative that grows in added value for its members, employees and customers.



In their speeches, Marijke Folkers, chair of the Supervisory Board, Ed Kraaijenzank, former CFO, and Henk van Kalsbeek, chair of the Works Council, looked back on Bert’s leadership. Speaker Roanne van Voorst, anthropologist of the future, talked about how we can work towards a sustainable future. All the EC members also bid Bert farewell in vlogs.

During the farewell ceremony, Bert was presented with a plaque that will be mounted in the new factory in Gasselternijveen. The new factory is now officially called the ‘Bert Jansen factory’. Finally Bert received a cheque for €1500 for ‘Stichting met je hart’, a foundation that sets out to put lonely elderly people in touch with each other by organising activities. With a smile and a tear Bert parted company with Avebe after 13 years.

CEO David Fousert and Supervisory Board Chair Marijke Folkers:

“Give us the space and we will provide the solution.”

David Fousert was appointed chairman of the board and CEO last summer. He succeeds Bert Jansen after 13 years. How did he experience the first meeting and what are his challenges for the coming years? In an interview, he looks ahead together with Supervisory Board Chair Marijke Folkers. “The biggest challenge of all is the time and space we get from politicians.”

“Inspiring!” That is how David Fousert describes the effect of meeting the staff and members of Avebe since he took up his duties in September. “The people who work here are hugely committed. I notice this in everyone I speak to, whether they have been working here for 2 years, 10 years or more than 50 years. They have a huge affection for Avebe and the willingness to keep improving.”

“I also notice that our farmers are progressive and future-oriented. They are aware of the big societal challenges they face and meet them with entrepreneurship and creativity.”

Focus on innovation and sustainability

Fousert finds himself at the head of a very different Avebe than his predecessor Bert Jansen did 13 years ago. Then there was a crisis. The cooperative produced starch for a bulk market with low margins. Avebe was also dependent on European support which was being phased out. Since then there has been a sharp

change of course. Thanks to a strategy based on innovation and products with greater added value, the cooperative is now financially healthy. The performance price is showing an upward trend.

You could say that the new CEO has inherited a bed of roses. But Supervisory Board Chair Marijke Folkers sees it differently: “Of course, it could be worse. No major reorganisations are now needed to stimulate innovation or bring cost prices under control. But we’re not there yet by a long shot! We are still too dependent on native starch. We still have another hurdle to overcome.” >>

David Fousert, Chairman of the Board and CEO

The surname is pronounced 'Foo-sèr' in French, but the ancestors of new CEO David Fousert (43) have been Dutch for centuries. David grew up in Brabant. His parents were not farmers, but he has always been attracted to the agricultural sector. He wanted to become a vet, but failed to draw a place for the study programme (five times!). He studied pharmacy, but ended up in agribusiness. He worked for international commodities trader Cargill (almost 14 years) and animal feed company ForFarmers (5 years). This summer he joined Avebe as successor to CEO and chairman Bert Jansen.

In the transition of our agricultural and food system we are part of the solution.

Yield per hectare must improve

David Fousert adds: "In the current long-term Binding and Building, the emphasis is on innovation as a driver of growth, combined with making the chain more sustainable. We want this to have an impact on the farm, in the form of a performance price that will be gradually increased over the next few years, reaching 100 euros in 2024. These are ambitious targets. This will need to be firmed up even more in the coming years."

Marijke: "We have had 2 years with a very high performance price. But that wasn't just about the strategy. It's just that there was scarcity in the market. The yield per hectare has to be structurally increased to an even higher level in order to keep the crop attractive. Costs continue to rise and growers need higher financial returns to continue investing and becoming more sustainable in the future."

New strategy

The current strategy runs for another 2 years, until 2023. Behind the scenes, thought is already being given to the next steps. David: "Over the next 6 to 12 months we'll be working on the preparations for the new long-term strategy. We are doing this together with the Supervisory Board and Avebe's rank and file, the district councils and our members."

What do you see as the biggest challenge for the coming years?

Marijke: "The greatest challenge of all is the time and space we are given by politicians. There is enormous pressure on the land market in the Netherlands. The question is: how can we work together to make sure we get enough raw materials?"

Can Avebe convince politicians that they should provide this space?

David: "In the transition of our agricultural and food system, we are part of the solution. Avebe produces high quality plant-based and innovative products for food, feed and industrial ingredients. That's where the future lies. With protein, we have a very strong trump card. The whole world is talking about the protein transition and asking for alternatives to animal proteins. There are also great opportunities on the starch side, with new high-quality blends and innovative ingredients."



Marijke Folkers- in 't Hout Chair of the Supervisory Board

Marijke Folkers (38) has a mixed farm with her brother and their families in Veendam, which includes not only arable farming, but also pigs and poultry. She has been a member of the Supervisory Board since December 2016 and became its chair on 1 November 2018. The Supervisory Board has nine members, five of whom are members of the cooperative. The Supervisory Board oversees the management and the policies of the cooperative and gives advice - solicited and unsolicited - on its policies.

Growing plan for peat colonies

In the current social climate, the use of crop protection products and fertilisers is under pressure and a lot of attention is paid to nature development and biodiversity. Does the intensive growing plan for peat colonies have a future in this context?

Marijke: "Certainly. It's utopian to think that fewer tonnes per hectare is a solution for the future. With an efficient, high-yield crop, you can get a lot of protein and starch from a hectare and produce with a relatively small footprint per tonne. Avebe encourages this development. Take our collaboration with

“The Hague must also know what pearls the peat colonies contain.”

potato breeding company Solynta, for example. That enables us to develop new sustainable potato varieties even faster, which achieve high yields with fewer crop protection agents and artificial fertilisers.”

David: “My feeling is that sustainability is often oversimplified in the social discussions. Solutions are only truly sustainable if they are also economically viable for entrepreneurs. We can hardly continue to offer subsidies indefinitely with taxpayers' money, can we? Knowledge and exchange are also of crucial importance. There are several solutions for similar themes.”

What can Avebe do to secure the future?

Marijke: “It's all about connecting. We need to keep explaining what we are doing and why we are doing it. Both within the cooperative and to the outside world. We need to improve on that. Avebe has always been modest. It's not our style to brag. But we have to! In this day and age, developments follow each other rapidly and image has become so important. The Hague must also know what pearls the peat colonies contain. How we provide solutions for the future.”

David: “There are few companies that can implement the ‘plant-based revolution’ as well as Avebe. And we do this in a transparent, closed chain. That way, everyone can see where our products come from. I think that gives us a very strong edge! But we need the raw material to make it all happen. This is only possible if our farmers have a good earning model. Give us the space and we will provide the solution. That is what we really need to base our work on. I have every confidence in that.”

A look behind the scenes of the Avebe Customer Experience Center.

Royal Avebe is constantly innovating and helping food producers to develop new and tasty products. In 2018, Avebe opened a Customer Experience Center at the Innovation Center in Groningen, where customers can experience the many applications of potato starch and protein in food with all their senses. Here we experiment, research, cook and above all taste.



The shift from animal to plant-based food is an important step in making the food industry more sustainable. Avebe's innovations help. For example, potato starch and protein can improve the taste and texture of vegetarian products, such as in plant-based burgers, sausages and chicken nuggets.



The Customer Experience Center is not just a place to physically visit. Customers worldwide can take a look behind the scenes via a live connection. This form of virtual inspiration and knowledge sharing has taken off in a big way due to the corona crisis and allows Avebe to support customers anytime, anywhere.

The photos show from left to right: Willeke Thürkow, Gerard ten Bolscher, Zheng Hong Chen, Jérôme Vlaanderen, Vani Bhaskaran and Roy de Vries

In the Customer Experience Center, a pizza is baked with cheese that is free of dairy, but in which our potato ingredients provide the perfect texture.



...ation by nature
...nce 1919



In different countries and cultures, food is prepared and experienced differently. Avebe's experts help food producers worldwide with the correct application of starch and protein in food. From Asian noodles with the perfect bite to creamy Indian curry and desserts for the Western market in which starch is used instead of gelatine as a binding agent.



Avebe is continuously researching how starch and protein can be used to make food tastier, healthier and more convenient. In the Customer Experience Center, customers can see, smell, feel and taste how science and technology are creating ever better food.

‘Back to basics’ for future-proof cultivation.

“It may seem exciting what we are doing, but really it isn’t. It is unknown,” says arable farmer Detmer Wage from Wedde in Groningen. Together with five colleagues, he takes a ‘very different’ approach to soil. The aim is to make the soil so resilient that it at least gives back what they used to add themselves with artificial fertiliser. Detmer and his colleagues are part of the Innovation Programme for the Peat Colonies, of which Royal Avebe is one of the partners.



Watch the movie
‘Resilience in the Peat Colonies’ here.

The Innovation Programme for the Peat Colonies was set up in 2012 to counteract the reduction in income of farmers in the reclaimed peat areas. The new European Common Agricultural Policy has further reduced income support for farmers. By focusing on increasing yields, sustainability and with the help of a knowledge network, the programme aims to make farmers independent of additional government support. The experimental approach of Detmer and his colleagues is now financially supported with POP3 funds Kringlooplandbouw Groningen. This facilitates monitoring, yield measurements and purchasing preparations.

We're talking about more biology in the soil.

Research

Researcher Miranda Meeuwissen of the WUR is conducting research into the resilience of agriculture in Europe. In the video 'Resilience in the Peat Colonies' she outlines how the resilience of farmers in the area has always been called upon. When the peat had been dug out, they grew starch potatoes on the sandy soils. The abolition of the European subsidy again called for resilience. Now the sector is facing new challenges such as climate change, the downsides of intensive cultivation and insufficiently constructive government policy. "Farmers in the peat colonies are resilient," concludes Miranda Meeuwissen.

Detmer: "More than the peat-colony farmers themselves, the soil is actually very resilient. Yet six out of ten problems in crops are caused by insufficient soil resilience. Many growers still think that 'more is better' and end up destroying the resilience of the soil. A number of

companies are buying up the smaller farms and are now getting very big with preferably intensive crops."

Precision agriculture

In Wedde he grew 1/3 starch potatoes, 1/2 grain and 1/6 sugar beet on 170 hectares of land. He may contradict the image of the resilient peat colonies, but he himself seems to be proof of it. With his background in the IT sector, he spent years researching what digital techniques and data could do to improve revenues on his farm and how to handle them more efficiently with seed and plant protection products. "I have tried all the new developments in precision farming on my land.

The differences in yield, even within the same field, are sometimes a factor of 2 or more. With precision agriculture, we could only explain two or three per cent of these yield differences." After attending a lecture on soil biology, he took a different tack. "We no longer do what information providers who focus on maximum yields tell us, and we don't think the information is right. We're talking about more biology in the soil. It largely comes down to choosing better fertilisers more consciously. We try to avoid chlorinated fertilisers, lime ammonium nitrate (KAS) and Kali-60 as much as possible. We are also banning chlorine-containing residual flows from industries, including our own. We are not completely without artificial fertilisers, but we do use much less of them. A Kali 50, for example with sulphur fertiliser is much more expensive than Kali 40 or Kali 60 but more suitable." Detmer makes use of several sources of knowledge, also from abroad. "We are going 'back to basics' using old

knowledge, which we as growers have not been taught for a long time." Keeping the land green is an important starting point. "Soil is improved by plants and the sugars they secrete. Soil improves with plant growth, not just fertilisation."

Nematodes

Sowing mixtures of green fertilisers presents a risk of increasing the number of nematodes in the soil. That's not what growers are usually hoping for. "However, the damage these nematodes can cause is offset by the positive effects of other soil life also developing," Detmer explains. If you do such a trial for one or two years, the result is negative, but if you keep it up for longer, the result is actually positive." He continues: "Some people think of biodiversity as flowery field fringes. For me it is mainly about a soil that is balanced by single-cell organisms, bacteria and fungi that you cannot see with the naked eye, Detmer argues. "Biodiversity begins at the bottom of the food chain. With fungi, nematodes, springtails, mites, centipedes, insects and earthworms."

Nutritional value

"We are growing our products more calmly. This leads to strong plants and a different lice burden. Lice are natural cleaners of weak and diseased plants. Because the crop is stronger, we also need much less water to produce dry matter. The nutritional value of our end product is demonstrably greater. In the end, this should also translate into a different yield price. Our approach is a system in which all factors are important for a successful result. If you do minimal tillage, but leave out essential operations like using bacteria and the right green manures, it won't work."



Harry Komies and Roel de Vries

A smarter approach with Autonomous Management

“Getting results means job satisfaction.”

Royal Avebe’s mission is to add value to healthy, nutritious and environmentally friendly starch potato ingredients in partnership with others.

This naturally applies first and foremost to potatoes, from which we extract starch and protein. But the ‘together’ aspect also applies to how we work. That is why we work with the WCOM programme (see text box). At the Avebe production site in Ter Apelkanaal, WCOM Specialist Roel de Vries started Autonomous Management two years ago. Logistics Operator Harry Komies was involved from the very beginning. Together they talk about the programme and its successes.

“Autonomous Management is a part of WCOM that mainly focuses on the daily tasks on the shop floor,” explains Roel. “We compare it to first-line maintenance, which is the work that operators do themselves to keep the production process running smoothly. When we started WCOM, I freed up two operators, including Harry, to work on Autonomous Management. Then we started structuring.”

Digitisation is an important step in the improvement process. Roel: “All tasks and work documents are available through a system we developed ourselves. This system is in line with our processes. For example, the operator schedules in the system the tasks to be performed at set times for an entire year. Now our people work with a tablet and see what needs to be done every day.” Harry adds: “From quality checks to machinery inspections, everything is done on schedule and you can’t forget anything.”

Meanwhile, the tool ensures that work is done in a neater and more structured way. “It’s a shame we’re doing this interview online, otherwise you’d be able to see how neat it is in here now,” jokes Harry. “Because tasks and responsibilities are

laid down, people have become more careful. In the past you sometimes thought ‘well, someone else will clean it up’. Now people are responsible themselves.” This is where Autonomous Management comes in: by making employees responsible, they can independently carry out the necessary tasks.

The new working structure has a lot to offer. Roel: “Pallets sent to the customer look better and we get fewer complaints.” Harry adds: “You see results and that is satisfying. It took some getting used to, but people are embracing it and thinking about the next improvements. Operators are more involved, check their work better and intervene sooner. This results in fewer faults and fewer errors. It makes the work more fun, and that motivates me.” The method is now also being adopted at other locations, so that the investment in time and digitisation is being put to optimal use.

About WCOM

WCOM stands for World Class Operations Management. It is a structured approach that Royal Avebe uses to organise work better and better. Fokko Greven is Avebe’s WCOM Director and tells about the programme: “By discussing our daily tasks and results together, you discover bottlenecks. Often you can solve them in the short term. Sometimes it’s necessary to put together an improvement team that achieves results in a set period of twelve weeks.”

Since its inception in 2017, WCOM has seen great results. Fokko: “We are producing more and the production is more stable. WCOM also helps us to work more sustainably because we are always trying to identify where the waste is. It is possible that valuable production time is lost due to a fault. But also consider the inefficient use of energy. The results of the improvement teams lead to improvements in the daily processes. This will permanently eliminate waste and we will add more value with the deployment of our people and resources.”

“WCOM has become more and more a part of Avebe. Since its introduction in 2017, we have been supported by an external consultant. The knowledge we have acquired through training and experience has enabled us to



carry out the programme independently. The external advisor regularly holds up a mirror to us to keep us sharp. Implementing the programme ourselves creates a valuable exchange of experiences between our production sites and process improvements are taken over from each other.”

Fokko compares WCOM with how sportsmen and women or musicians achieve their goals: “There has to be talent and passion, but this only leads to achievements if it is developed with structure and discipline. Avebe’s mission statement describes what we want to achieve as a company. WCOM is all about how we do that. How do we work smartly towards our goals.”



Innovation by nature:

Solutions that customers really want.

Dairy-free feta cheese, meat-free hamburgers and gelatine-free liquorice. With Good Food as a strategic pillar, Royal Avebe meets the growing demand from consumers and manufacturers for tasty, healthy and sustainable alternatives to animal ingredients. In the Avebe Innovation Center at the Zernike Campus in Groningen, innovation teams are constantly developing new applications based on potato protein and potato starch. The process from idea to market launch is very demanding, says Ronald Apeldoorn, Manager of Intellectual Property Protection (IPP).

Flexitarians, vegans, consumers with a cow's milk allergy and those avoiding ingredients with E numbers or genetically modified components: there is a growing demand for healthy and sustainable alternatives to products containing animal ingredients. The days when consumers had to make concessions in terms of flavour and texture are over: thanks to innovative developments, a hamburger based on potato protein has the same 'bite' and is just as juicy as a hamburger made with meat.

Cooperation

Good Food, Clean Label, Plant-Based and sustainability are the spearheads of Avebe's strategy.

“Especially in the market of plant-based meat and dairy applications, there is a strong demand for new solutions and applications within the framework of Good Food and Clean Label,” says Gerard ten Bolscher, Managing Director Innovations. “Whereas Avebe used to be a company that developed products and then looked for a market, we are now working on market-driven innovations. Collaboration is essential to come up with new applications efficiently and quickly. Departments such as Innovations, Marketing and Sales have been brought together in the Innovation Center. Here we easily switch between the various departments, but also with our cooperation partners such as the University of Groningen and the Hanze University of Applied Sciences.”

Radical innovations

Avebe distinguishes four different types of innovation, which all start with a clear market demand:

- **Radical innovations:** long-term projects are characterised by technology that is new to Avebe, relatively large financial investments and a high level of innovation
- **Incremental innovations:** medium-term projects that build on previous innovations to create added value with a relatively modest financial investment
- **High Capex:** projects involving less innovation, but with a large scale and a relatively large financial investment;
- **Low Capex:** projects comparable to High Capex, but on a smaller scale with corresponding capital.

“By steering structurally during the continuous flow of innovation projects, we keep a sharp eye on whether we are working on the right applications, helping our customers with their current problems and, if possible: finding solutions for problems that customers themselves do not yet see”, says Ronald.

“Collaboration is essential to coming up with new applications efficiently and quickly.”

Competencies

“Our people make the difference,” he continues. “Through project experience, specific training and knowledge from the literature, they are continuously developing their competencies, which allows us to help our customers even better and faster.”

The innovation process distinguishes five phases:

1. Project idea
2. Business Feasibility
3. Development
4. Trial & Validation
5. Launch

Every innovation starts with an idea. These ideas are mainly generated by the platforms who know all about the needs of their specific markets in different countries: (plant-based) Meat, (plant-based) Dairy, Confectionery/Bakery/ Snacks, Soups & Sauces, Noodles & Ready Meals and Construction. An idea is pitched and evaluated on its value in the market, connection with trends and on risks, after which the Review Committee, with managers from Marketing, Sales, Finance, Innovations and Operations, assess whether the project has developed enough to proceed to the next phase.

Promising

If a project is considered promising after phase 1, a project manager is appointed and the project enters the ‘Business Feasibility’ phase in which the feasibility of a successful market launch is investigated. This phase is relatively short and is the most important decision factor: assumptions about the market, the product and the development are verified and adjusted if necessary.

The project team, which is formed during the various phases with relevant experts, is informed by the portfolio management about the current time schedule, finances and quality achieved, so that after each phase it is clear how the results of groups of projects relate to each other. At each stage, risk and reward are weighed up and the best projects are selected to go ahead.

Top-class sport

Ronald: “Innovation is like a top-class sport: everything has to be right and perfect, and you can only get good results through good cooperation between different disciplines. Only twenty per cent of the projects will be successful and meet the strict criteria we set for them.” If there is a ‘go’ on phase 2, we can start with Development; the phase for trial production and marketing. If this phase is also approved, the Trial & Validation phase can begin. This phase varies between a few months to a year, before the product is accepted by Operations and a few selected customers have accepted the concept in the market. Finally, the launch.

Ronald concludes: “With this structured way of working, Avebe is putting some great well-known innovations in the market like Solanic, Etenia and Perfectasol. We take a critical approach to one another and that makes us rightfully proud of the superb concepts we realise together here.”

Working with the customer on new sustainable applications.



Hubert Jannin

Hubert Jannin has been working for Avebe for 32 years. In his current position as Technical Commercial Manager for industrial applications, he serves the Southern European market. France is his home base. How important is sustainability to the Southern European customers of Royal Avebe and how does Avebe meet the needs of the market?

Do customers have different sustainability demands than five years ago?

Sustainability is a theme that is gaining more and more emphasis at Avebe and that also applies to Saint-Gobain, one of our key customers in the industrial sector and world leader in building materials such as mortars and coatings. Sustainability has been a pillar of their industrial and commercial strategy for several years. Saint-Gobain invests heavily in sustainable development and this also determines the company's strategic choices. Today we see others following them in this direction and Avebe making the right choices to meet their demand. In the materiality

analysis of Avebe we describe the relevant economic, social and environmental aspects that influence the results of our organization. This analysis appeals to Saint-Gobain, in particular our ability to innovate, our customer focus and our policy to reduce the impact of our activities. All this fits perfectly with the materiality analysis of Saint-Gobain, in which the preservation of biodiversity is a spearhead. This includes saving and reducing energy consumption and, more generally, resources.

Is it difficult to meet the demands of these customers?

On the contrary! The natural raw material we work with, the starch potato, aligns perfectly with a sustainable strategy because the raw material itself is sustainable. Potatoes absorb CO₂ from the atmosphere as they grow. Sustainability is one of the key principles of Avebe's corporate strategy and this is a good thing for customers who want to differentiate themselves. We are a major player in the field of sustainability, not least owing to our focus on the availability of renewable raw materials and recycling options.

What challenges does your team face?

The main raw materials come from the Netherlands. One challenge is the long-term availability of raw materials. The



“Sustainability is one of the most important starting points of the Avebe strategy.”

Dutch production of starch potatoes has a limit in terms of surface area. Another point of attention is transport. The challenge is to compensate for this and find a means of transport that is carbon neutral, as we do with the train. The building materials industry is characterised by strong demand for advanced products. Long-term demand is determined by the business choices our customers make and the segments in which they invest the most.

What are Avebe's priorities?

Our priority is to focus on the short term. For building material applications, our products are particularly effective: a very low dosage yields great performance and we can usually produce over a thousand tonnes of mortar (grout) with one tonne of our products. For about five or six years, we have been working closely with Saint-Gobain to find new applications for our products. Since this spring, however, we have been experiencing special circumstances: there is a shortage of almost all building materials, such as wood and metal. Demand from China plays an important role in this respect. The corona crisis has created a global shortage of supplies for almost all building materials. The crisis has also created a huge demand at DIY stores. At the moment, our priority is to maintain our level of sales in a market characterised by scarcity.

What else characterises the industrial market?

As a representative of Avebe, I find it reassuring to see that companies are investing in sustainability, that they understand that sustainable production is essential. Those who do not understand how important this is do not understand the world we live in. We have no choice if we care about the well-being of future generations. Sustainability is the future and I am really proud to be working for Avebe, precisely because it is a company that invests in sustainable business processes.

Avebe has a good reputation when it comes to quality, reliability and stability. Our customers have confidence in us and this is reinforced by the fact that we are a cooperative. The cooperative is characterised by control, distribution among members and reuse of resources for its purposes. That is in contrast to listed companies where the short-term financial interest is often paramount.

We are close to our customers and listen carefully to them. We operate around the world with growth opportunities that continue to be very significant in regions such as Southeast Asia, Africa and Latin America. Our technical orientation is essential to present our products and to answer specific questions and developments in these countries. By working together with our clients, we raise commercial development to a higher level.

AVEBE IN FIGURES 2020/2021

Solvency

	2020/21	2019/20	2018/19	2017/18	2016/17
group capital*	208,6	205,5	203,7	203,6	202,4
borrowed capital*	375,5	284,9	269,7	263,1	211,0
total capital* incl provisions	584,1	490,4	473,4	466,7	413,4
solvency	35%	41,9	43,0%	43,6%	49%

* x I mio euro

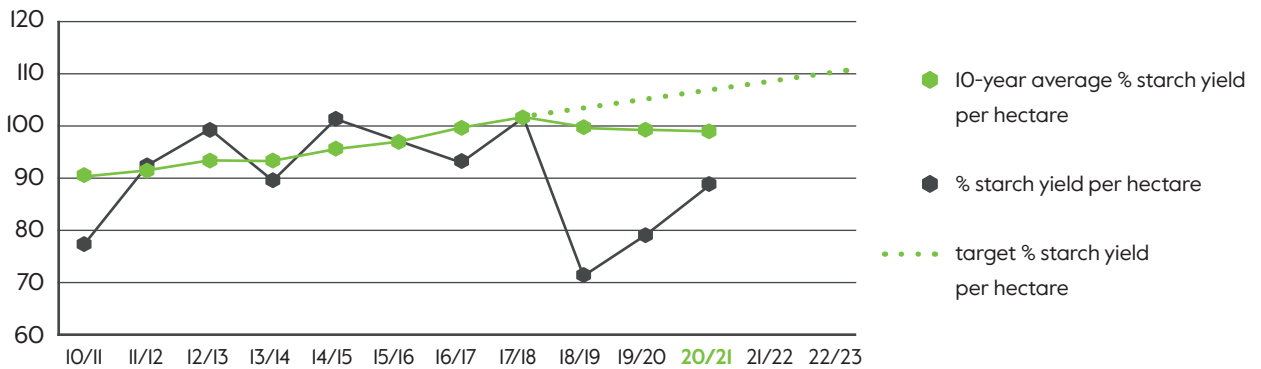


Employees

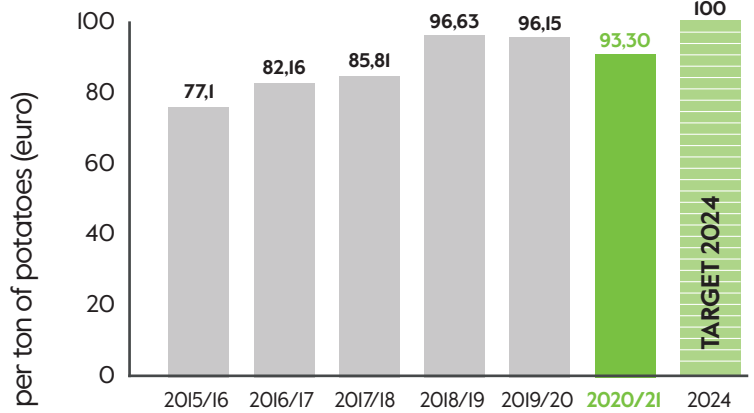
	average number of	percentage female	percentage male
2021/20	1389	18%	82%
2020/19	1381	19%	81%
2019/18	1424	19%	81%
2018/17	1326	18%	82%
2017/16	1311	18%	82%

Starch yield

per hectare % compared to 2017/2018



Performance price



Starch potatoes as a safe haven.

Johanna Sierck manages a 120-hectare farm in Deutsch Evern, Lower Saxony. Besides her own farm shop, where she sells the freshly harvested vegetables, she grows potatoes on 50 hectares.

“Potatoes have always been a part of our farm. We now grow 40 hectares with the waxy varieties Henriette and Karli. On another 10 hectares we grow conventional starch potatoes. With waxy potatoes we have had hardly any problems with diseases.”

Seasonal influences

“This year the cool weather and very wet soil meant we planted relatively late, not until the end of April,” Johanna looks back. At the same time, the farm also benefited from the weather conditions this year. “Because of the rain, we didn’t have to irrigate as much. Only in June and July there were periods when this was needed. This allowed us to save a lot of time and money.”

Exchanging experiences

“The starch content of our potatoes seems to be good this year, at least that’s what

the trial harvests show,” says Johanna. She is taking part in Avebe’s two-year study group, in which growers exchange experiences. Trial harvests were carried out on her fields. “The study group is great for sharing experiences. I get a fascinating insight into the practices of other companies and can exchange ideas with colleagues about possible challenges. Soon we are starting with a harvest training course. An expert will be showing us what to pay special attention to during the harvest.”

Expansion of acreage

“The cultivation of starch potatoes is an important basis for our company. I’m sure all my products will be sold, unlike vegetable farming. We deliver our vegetables to retail and have no guarantee of not losing our products. That’s why we expanded the potato acreage two years ago. This also allows us to save on the

number of employees. For the potato harvest we only need three people, for the vegetable harvest fifteen, and that is clearly reflected in the costs.”

Close partnership

“We are very happy with Avebe as a partner. The communication and cooperation have been good so far. We are kept informed about current topics such as crop protection by e-mail. We receive important tips and recommendations in this area, especially during the growing season. Feedback from us as farmers is also taken into account and implemented immediately”. Johanna Sierck is convinced: “Starch potatoes will continue to be an important pillar for us in the future.”

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