

Avebe Magazine

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**Our growers' experiences
with sustainable potato varieties**

Avebe is working on a new strategy

**Working together on the agriculture
of the future**



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What is the perspective of starch potato cultivation in the future?



Royal Avebe is a fantastic company with committed employees and members. This creates a strong foundation. It makes us flexible and agile. And ready for the future and the challenges that come our way. This is reflected in the result we achieved last year. I would like to offer Avebe's members and employees my sincere thanks for that.

But we are facing a new reality. The performance price needs to rise faster to keep starch potato growing attractive. The impact of several factors has increased since the last Avebe magazine. At the time of writing, inflation is at an all-time high, a solution to the situation in Ukraine still seems a long way off, and we have had a very dry summer.

Prices are rising while purchasing power falls. We are all feeling the effects. From potato growing to delivering products to our customers, the costs have increased enormously. The entire Agri & Food sector is experiencing a shift. The dry summer presents big cultivation challenges. Members have had to pull out all the stops to achieve a reasonable return per hectare.

With this new reality, we often hear the question: What are the prospects for starch potato cultivation in the future?

I am convinced that thanks to our members, employees and customers, we can look forward to a healthy future with attractive prospects for cultivation. There is a growing need for sustainable, transparent, functional and healthy products.

These are trends Avebe is responding well to. That allows us to accelerate the transition to more value-added. It is also a clear line in our new strategy. We are now in the completion phase, and from 2023 onwards the strategy will be communicated and implemented throughout Avebe.

We need each other to achieve another good result in the coming year. We have to watch costs and deal with all the challenges that come our way. I am confident we can succeed in this together.

Happy holidays and enjoy reading this edition of our Magazine!

David Fousert
CEO, Royal Avebe

A handwritten signature in black ink, appearing to be 'David Fousert', written over a light green background.

Avebe is working on a new strategy.

Royal Avebe's mission, vision and ambitions are described in the cooperative's Binding and Building 2.1 strategy.

This strategy expires in 2023, and in recent months a lot of hard work has been put into a new version. This is being done under the leadership of Marleen de Rond-Schouten, Strategy Director.



Marleen de Rond-Schouten,
Strategy Director

“A strategy is usually drawn up for five years and serves as a way of realising a vision for the future. In the last year of the current strategy, the process of forming a new one begins,” Marleen explains. “We decided from the beginning that we wanted to write the new strategy together with a broad delegation from within the organisation. People often make the classic mistake of drawing up a strategy in the boardroom, closed off from the organisation. We want to include the whole organisation in the process, so we continuously asked employees, growers and management for input. The works council was also closely involved.”

Working groups

The ‘Play to Win’ theory guides the process. Marleen: “We start out from the market, highlighting which markets we want to operate in, how we can ‘win’ in these markets and what talents and type of people we need to fulfil our ambitions. We have formed several working groups with colleagues from various departments and locations. They started working with us on key themes within the process such as commerce, operations, issues around innovations, raw material supply and people.”

Schedule

Parallel to this, continuous talks are held with growers, the works council, the leadership team, the Executive Committee (EC) and the supervisory board. The strategy is presented at the end of the year. First to the district meetings and later during the members’ meeting. “After that, we can slowly start rolling it out from January onwards.”

Evolution

Although the content of the new strategy will not be made public until 2023, Marleen tells us about its rough direction. “The new strategy will not be a revolution, but rather an evolution. We are building on the existing strong foundation but balancing the strategy better. Markets and opportunities change and we as Avebe need to move with them. Transition and agility will be keywords in the new strategy.”

Work process new strategy

Phase 1: Description of where Avebe is now, and the playing field in which we expect to operate in 10 years’ time.

Phase 2: analysis of the current foundation and how to strengthen it. Exploring strategic options.

Phase 3: articulating the new strategy: ‘The story of Avebe’.

The ‘Play to Win’ theory is the guiding principle in the process

After 50 years of service, Henk van Kalsbeek said farewell to Royal Avebe in August.

He looks back on his working life, which was all about change and looking ahead.

“I would rather look through the windscreen than through a small rear-view mirror into the past.”

Henk van Kalsbeek

Farewell after a career spanning half a century.

Henk van Kalsbeek turned up at Avebe as a 16-year-old as soon as he finished secondary school. The porter took him on straight away. “Just walk over to Human Resources,” he said. Reorganisations gave him the chance to gain experience in various departments. He worked in the technical department for twenty years, where he took internal training courses. In 1992, he moved to the energy department with gas turbines, steam boilers and combined heat and power.

Major turnaround

The subsequent reorganisation caused a major turnaround. Henk: “I was 56, and within two months I went from being the youngest in the team to the oldest as colleagues took early retirement. I was asked to induct four new colleagues in six months. That’s the best thing that happened to me.”

“One Sunday night, one of the new colleagues asked if we could rinse the filters differently. I was about to say we had been doing it that way for 20 years, but I asked him if we could test his approach straight away. And that’s what we did. That was when I realised: I want to take another step with my career.”

“Harking back to the old days won’t get you anywhere.”

Revelation

Henk became the team leader of the shift team. “I took leadership training courses and suddenly found myself dealing with a lot of people. That was a revelation.” As chairman of the Works Council, Henk advocated that staff on the shop floor should have co-determination. “That worked out tremendously well, thanks in part to our CEO at the time, Bert Jansen. The relationship with the supervisory board also improved tremendously.”

Four years ago, he became the Support Team Leader, and in his last year of employment, Henk held a position within HR Talent Management. “It was great fun recruiting talent at schools and fairs. I’m sure Avebe can handle the big challenges of our time. Because everyone says they want to change with them, with young people, with renewed enthusiasm. Harking back to the old days won’t get you anywhere.”

Production site Foxhol: Constantly evolving.

From potato processing to industrial applications. Mark Tettelaar and Eric Raad talk about the transition our Foxhol site has undergone. With sustainability as a guiding principle.

“Foxhol has a long history of continuous development,” begins Mark Tettelaar, Managing Director Operations. “The change from a potato processing site to a production site for industrial applications has been decisive in this.” Improving the production site and revamping the facilities will increase capacity and efficiency, but also contribute to

sustainability. A move that Eric Raad, Team Leader Logistics in Foxhol, says is a good fit for this facility.

“We take a conscious approach to sustainability. Perhaps even a little more than average since many Groningen colleagues live in the earthquake area.” Since 2017, Foxhol, like all other Avebe

sites, has been working with the WCOM programme (World Class Operations Management). The aim is to use this to reduce losses during production processes. Special improvement teams conduct loss analyses to identify where the most gains can be made. Several improvement projects start three times a year to eliminate losses permanently. This is an important move to improve efficiency as well as sustainability. Eric: “This fits with our commitment to minimise our footprint. We are also serious about sustainability programmes to use energy, water and chemicals more efficiently.”

Mark: “Foxhol offers opportunities precisely because of the growing interest in sustainability. The derivatives are a plant-based alternative to fossil oil-based products. That opens up opportunities in the market.” Dated facilities are being renovated to cash in on them. Mark: “One of the major projects is the modernisation and capacity expansion of the MP10 production line used to make derivatives for the paper industry. These are deployed in the growth markets of the paper business.”

In these growth markets, sustainability is important, Eric adds. “We also select our suppliers on sustainability criteria that meet our needs. But sustainability also has to do with healthy colleagues. It is important to get here safely, but even more important to get home safely again. And let’s not forget our potato. A better resource than fossil oil, one from which we can extract a great deal. We as Avebe have every reason to be proud of that!”

Eric Raad, Team Leader Logistics and Mark Tettelaar, Managing Director Operations



Hendrik Jan Schepel,
Manager Operations Averis

Successful introduction of sustainable starch potato varieties.

For Averis' Variety Value Programme, growers test varieties before they are released to the market. "It provides reliable, practical cultivation information on growth, yield and storage of more sustainable seed potatoes," says Hendrik Jan Schepel of Averis. Two growers, one from the Netherlands and one from Germany, share their experiences with new Averis varieties.

Each year, Averis introduces an average of two new varieties under a number in the Variety Value Programme; these are new varieties that do not yet have a name. The varieties have been tested at the breeding farm for the past six years. Six farmers grow these varieties for three years for the Variety Value Programme. For this purpose, growers are given various quantities of five to 20 tonnes of seed potatoes. "Farmers who grow several hectares store part of the yield to deliver at the end of the campaign. This provides essential information about the quality of the variety after storage," said Hendrik Jan, Manager Operations Averis.

Cost item

Economic sustainability is a key requirement for the Breed Value programme. Hendrik Jan: "We are working on varieties which, in addition to the basic resistances to potato fatigue and wart disease, yield a lot of tubers and are Phytophthora and virus resistant. Seed potatoes are the main cost item for a starch potato grower. These costs have to be recovered through good

starch yields. The higher the seed potato yield of a variety, the less its seed potato costs. Costs are also reduced by spraying less frequently against Phytophthora and aphids. For example, varieties that need less nitrogen are now arriving, such as Adelinde and Avamond."

Far apart

The growers, one in Germany and five in the Netherlands, are fairly far apart, so information on different growing conditions is made available. Growers are given guidelines on seed pre-treatment, plant spacing and fertilisation. They also agree the delivery time with the grower for each variety.

Growing season

During the growing season, Hendrik Jan and the growers meet three times to gain insight into possible differences in crop growth: at their emergence, in summer and just before ripening. They then meet again in winter during the storage period. >

- > They assess the crop in February. The grower is then also asked if he will or will not include the new variety in his normal operations.

Increasingly sustainable

Hendrik Jan: “New varieties contribute to increasingly sustainable cultivation. The Breed Value programme has been running for about 10 years now. Growers’ experiences give us important information, even before we launch the new, more sustainable varieties.”



Bernoud Draijer, arable farmer

Bernoud Draijer:

‘Avamond is a strong variety with low nitrogen requirements’

Because Avamond is a strong variety on potato fatigue, phytophthora and viruses, it fits well on Bernoud Draijer’s arable farm. The low nitrogen requirement makes the variety an attractive choice.

Bernoud’s farm is located in Ommelandervijk, between Nieuwe and Oude Pekela and Veendam. Arable farmers have long grown starch potatoes in this part of the Veenkoloniën. That explains Bernoud’s strong preference for potato varieties with good resistance to potato fatigue, wart disease and phytophthora. “Avamond features good tolerance to potato fatigue and wart disease. It is not resistant to phytophthora but is reasonably strong for foliage and tuber.”

Own cultivation

Avamond is highly resistant to Y virus. “That saves having to combat lice when

propagating seed potatoes in-house. We usually buy three-quarters of the seed potatoes from Averis. We grow a quarter ourselves. Avamond remains healthy, making it very suitable for its own propagation.” The fact that Avamond requires less nitrogen is a gain for the environment and a saving in cultivation, especially with today’s high fertiliser prices, Bernoud says. “With a variety like Seresta, you need about 210 kilos of nitrogen; with this one, around 150 kilos is enough. So that saves a quarter.”

Enough kilos

Bernoud regularly tries new varieties. He has now been growing Avamond for two

years. He is very happy with the variety for both starch production and seed potatoes. “It’s starch content is not among the highest, but Avamond compensates for that with enough kilos.”

Medium-term storage

The grower says the variety is quite germinative. That makes it less suitable for long storage. “We deliver in a few periods, and we store potatoes in two storage sheds. In the first shed, we keep the Avamond. It is emptied in January. The second shed does not follow until May. In it, we store another, more storable variety. Avamond is an excellent variety for first deliveries and medium storage. With its strong features on disease, it fits well with our crop rotations. The low nitrogen requirement is also definitely a plus.”

Dirk Ludwig:

‘Saprodi has an average starch content of 21 per cent’

After Dirk Ludwig’s farm stopped bull farming, an alternative had to be found for the maize crop, which they used to feed to the bulls. That is how the starch potato made its entry into the farmer’s crop rotation as a newcomer. Dirk Ludwig talks about his experiences growing starch potatoes.

Dirk Ludwig has been growing starch potatoes for Avebe in Geesthacht, Germany, on about 40 hectares for three years. He started with the varieties Axion and Saprodi. This year Avamond was added. “In terms of seeding, these breeds are barely different. In many ways, it happens without any problems.” The ongoing drought is a good example of this. Of the 40 hectares, only 10 hectares are irrigated. “Despite the drought, our potatoes are coming out well even in the locations with loose soil, while our sugar beet, for example, is suffering much earlier and clearly more from the drought,” Ludwig says. Crop protection has also been running smoothly so far. Normally the Colorado potato beetle causes a lot of damage, but in this location you hardly find this beetle. “Our site here near the river Elbe, where potato cultivation is not yet common, is largely free of pests and diseases due to crop rotations. We insert cultivation breaks of at least four years to keep it that way.”

Good yields

While the three varieties hardly differ in cultivation, they do show different characteristics in terms of yield. Compared to the Saprodi variety, Axion has the lowest starch content. This in turn is offset by the higher tonnage of starch potatoes produced by this variety per hectare.

“With the Saprodi potato variety, we see a starch content of 21 per cent on average,

which is of course very pleasing,” says Dirk Ludwig. “We cannot tell you much yet about the new Avamond variety. Due to the drought, the tubers of all varieties are slightly smaller than in previous years. We hope this will result in higher starch contents overall.”

Exciting learning process

For Dirk Ludwig, growing starch potatoes was a new challenge. “Cultivation is a bit more labour-intensive than other crops, but this has made it an interesting learning process for us. For example, we limited nitrogen fertilisation to 80 kg per hectare on Avebe’s advice, which ended up producing higher starch yields. Over the past few years, we have learnt a lot and improved a bit each year.

Dirk Ludwig, farmer



At the helm of your own career.

Person-specific interviews, more personal responsibility and a continuous dialogue with your manager: the new HR interview cycle gives Royal Avebe employees more control over their careers. Nadieh Mulder (HR Business Partner), Nienke IJdens (HR Business Partner) and Stephanie Langbroek (Director HR Programs) talk about the creation of the programme and the new approach.

“With the new interview cycle, called Continu FIT, we very consciously put the employee at the helm of their own career,” says Nienke. “Previously, at Avebe, we had a cycle of three fixed interviews a year. The new approach is more flexible in the number of interviews and addresses multiple issues. This makes the cycle freer and truly tailor-made for each employee. Also, the employee’s contribution to Avebe’s strategy is given a more important role in the interviews.”

Talent

Stephanie adds: “In Dutch FIT stands for Performance, Employability and Talent. Performance is about your current performance and your contribution to Avebe’s strategy.” Nadieh: “This also includes workplace learning. Employability addresses sustainable employability and, for example, your work-life balance. The T stands for Talent. In this section, we talk about ambitions. What do you want to get out of your

career, and where do you want to go?” This does not necessarily mean that everyone has to be hugely ambitious, it’s all about continuing to learn and grow. Everyone has talent. It’s about making the most of it.” Nienke: “So many people, so many wishes! Someone at the start of their career has different needs than someone a few years before retirement. For the former, developing can be a point of focus, where the other is more concerned with transferring knowledge.”

“Learning from each other is important here. That means daring to give each other feedback.”



Nienke IJdens, HR Business Partner



Nadieh Mulder,
HR Business Partner

“We continue to engage with our employees. This is also how we continue to learn and develop.”

Besides the FIT approach, giving and receiving feedback has a significant role in the new cycle, Nienke explains. “Avebe is very ambitious, and we need to be agile as an organisation. Learning from each other is important here. That means daring to give each other feedback.” This can be positive feedback (What do you see as my strong points?) or points for improvement (How could I do better?). Stephanie: “We are not used to asking for and giving feedback. But it is a great way to help and hone each other’s skills.” Giving feedback is not mandatory, she explains.

“We give the option so people can get used to it. If you’d rather not, that’s OK too. Every employee has different needs; we take that into account.”

Input from the organisation

The new interview cycle went ‘live’ on 17 October. Going live was preceded by an extensive process. Nadieh: “I have been the project manager from the word go. This happens to be our first project where our works council was also represented in the project group.” The project group drafted a questionnaire that 329 employees completed. In addition, 64 people were interviewed. Stephanie: “We got a lot of input from all levels of the organisation. This allowed us to correctly identify where the needs of our employees lay. The new interview cycle was tested

“Every employee has different needs, we take that into account.”

in a pilot group and then rolled out permanently. Nadieh adds: “In the coming period, too, we will of course continue to listen to feedback from employees to make it even better. That way, we can continue to learn and develop.”



Stephanie Langbroek,
Director HR programmes

Opportunities for plant-based products in Turkey.

The coronavirus also had a major impact on Royal Avebe employees in Turkey, both privately and commercially. The effects of the pandemic are still evident in the Turkey/ Middle East region, said Tibet Turgut, Area Sales Manager of Avebe Turkey. He looks back on a turbulent time and ahead to the coming period. He foresees a period full of opportunities for Avebe's plant-based concepts.



Tibet Turgut, Area Sales Manager

“When the coronavirus hit our region, demand for our products first became much less and there was an avalanche of cancellations. Shortly afterwards, we saw a spike in demand. That calls for sound planning. This is where the strength of Avebe and its employees clearly emerged: we were able to adapt quickly to events and new dynamics. But even more important was our proactive approach. That helped us avoid a number of potential production problems.”

Balance

The effects of the coronavirus are still strongly felt, Tibet says. “Increased costs, transport, energy issues.... inflation is felt keenly in Turkey. It seems that it will take some time to achieve a new equilibrium in the economy of Turkey and neighbouring countries. But our team is very adept at dealing with these uncertainties. And we continue to work on sustainability, a key element in Avebe's strategy.”

Plant-based products

Avebe has now positioned itself well in the market in the region, says Tibet. There are some great developments underway. “Before the coronavirus outbreak, promoting the plant-based concept in the Middle East was not easy. Our customers were not quite ready for it. They had followed developments in America and Europe, but still, the idea was new to them. A new ‘mindset’ was needed. And it came! There is a strong chance that our population will not be able to buy milk and meat in the future. The Russia-Ukraine war also has a big impact on that. I have spoken to several customers who may be willing to switch to plant-based meat and dairy products. I feel and see that the market is now getting ready for this transition. ‘Solanic’ and ‘Perfectasol D’ solutions can very well meet this demand. The timing is perfect for Avebe!





Malmö

Roger Riesbeck, Improvement Technician



A stable and higher production in Malmö.

At our AB Stadex production location in Malmö, Sweden, an improvement project was recently completed in the HSD (Hot Soluble Department). We spoke to Roger Riesbeck, Improvement Technician at AB Stadex, about collaboration and the role of the WCOM program.

Right in the center of Malmö, approximately 70 employees work on the production of starch derivatives from potatoes, maize and cassava flour. “We saw an opportunity to produce more volume of potato starch derivatives within the HSD in a more stable way. That was the mission. Subsequently, a multidisciplinary team was assembled based on the WCOM methodology,” says Roger. “This method provides detailed insight into a complex process.”

“After the team was complete, we started looking at the entire HSD production line to identify where the bottlenecks were as our KPIs (key performance indicators) were not met. After careful measurements and data collection of, among other

things, stop times and transport times, we knew that the centrifuges were the cause. Within that framework, we looked at what we needed to improve in order to achieve the goal. In the end, the problem turned out to be in the air supply filters of the centrifuges. These had to be replaced.”

Thanks to the WCOM method, we were 100% sure of the cause of the problem. The team maps the entire process by constantly measuring, collecting data and testing. Establishing a baseline is very important because it is the only way to see whether you are achieving a desired result when making changes.

Roger: “Perhaps even more important is that everyone feels involved in the

process. We are in constant consultation within the team and beyond. Everyone knows where they stand. Let’s not forget that in addition to all machines, our operators also play a crucial part in production. All the more important to start a conversation and to be open to suggestions. This way you can get crucial insights that might have been overlooked. Keep talking and stay honest and respectful in communication and discussions with each other. Everyone should feel heard and part of the team. Data and measurements are indispensable, but so are the insights of colleagues.”

Avebe people in the picture.

Meet the people behind Royal Avebe. In each edition of Avebe Magazine we put a number of Avebe employees in the picture. What role do they play within the organisation? Read about it here.



Natasja Turksma
HR Recruitment Manager

“My main task is to future-proof our workforce. The tight labour market and our geographical location present quite a challenge with an ageing population in the coming years. My job is to make Avebe a good employer and attract the right people. A challenge I love to get stuck into.”



Jan Albert Daling
Chairman district Central

“As a district council, it is our duty to listen to what is going on at the farms and to make the farmers’ voice heard within Avebe. For that reason, we actively seek connections with other districts and members. Despite the apparent differences, we see many more similarities. It’s nice to tackle challenges together, and I enjoy doing that.”



Martijn Berg
Direct Board member Youth Council

“I joined the Youth Council in December 2020. We are close to Avebe’s centre. That means we know what is going on, better understand the market and respond better to it with our business. Meeting online only for the first few years was challenging. Now that we can actually see each other, there is room for active conversations and healthy discussion. It’s all come back to life!”

**Daan Langendoen,
Phytopathology Specialist at Averis**

“As a phytopathologist, I’m involved with research on plant diseases. How does the battle for nutrients between the potato plant and certain pathogens work? What can we do to increase resistance to certain diseases when breeding new potato varieties? These are issues that I find incredibly interesting and enjoy working on.”



**Florian Schröder
Chair of KPW**

“I have chaired the KPW district council since 2020, and I feel I am a connecting link between growers and Avebe. With a critical and hands-on approach, I’m committed to ensuring that everyone inside and outside the organisation, from farmer to board member, speaks the same language. The increasing drought in recent years and changing laws and regulations are critical points.”



**Joyce de Vries Director
Communication**

“I have been responsible for all Avebe’s internal and external communication since 1 April. That ranges from social media to member council meeting presentations and answering press enquiries.

I love seeing that everyone is so involved and proud of the company. It gives me huge pleasure to bring Avebe’s story to life and raise awareness of all the great things Avebe does.”



Unimaginable havoc in white clouds of starch.

On 11 January 1944, fourteen brisant bombs ended the lives of ten employees of potato starch factory M & O (Musselkanaal en Omstreken) in Ter Apelkanaal. Two employees were seriously injured. In his book *Grepen uit het verleden van Ter Apel*, (Stories from the past of Ter Apel) Jakob Been, Operator at Royal Avebe for almost 34 years, writes about this disastrous event.

'We were all just sitting down to lunch together, but our parents suddenly told us to sit under the table. When it went quiet again, my father jumped on his bike and hurried to the factory to see if he could help,' one of the relatives of a killed employee recounted.

Little known

77 years after this event, by coincidence exactly on 11 January, Jakob presented his book to Fokke van der Veer, then Site Director at Avebe in Ter Apelkanaal. Jakob: "Three years ago, I first heard about the bombing of the M&O. To my surprise, even at Avebe, I had never heard about it before. Very little was known about it. I've been writing books on the history of Ter Apel and its surroundings for years and have now delved into the history of this war drama."

Treasure hunt

Jakob began his search at Delpher, a source with millions of digitised newspaper articles. He found almost no information there. "The major national dailies didn't publish anything about it, not even the North's own regional newspaper, Dagblad van het Noorden (newspaper for Northern Netherlands). A 92-year-old resident of Ter Apel could tell me a thing or two, and that helped me start my search. The Streek Historisch Centrum (Regional History Centre) in Stadskanaal had a few photos and gave me some leads for my search."

Families

Jakob continued his research by searching under the names he had been given. Stadskanaal's local council was also happy to help by contacting the families of the Avebe employees who died in the attack and asking them if they were open to an interview. A few families expressed an interest. "I made a point of not approaching them myself right away. I thought that was too direct, possibly too painful. One thing I noticed in the conversations I had with the surviving relatives is that even after the time, little was said about it. That was too confrontational."

Flying coffin

For over two years, Jakob worked on collecting data, stories and photos. Over 30 pages of his book have been devoted to this subject. For instance, he describes where the US Bomber Group was stationed and what mission these bombers had been given on the 11 January in question. What formation they had flown in, and how it was possible that one of these B-24 Liberators, also called the Flying Coffin, dropped its bombs precisely on the potato starch factory.

Dogfight

Jakob: "The US bombers got into a dogfight with the much faster German fighters. The B-24s had to ditch their payload to get away. One of the pilots thought he was still flying over Germany and assumed he dropped the bombs over a German factory."



Jakob Been, Operator

A picture taken from the plane shows the bombs falling down. Another photo, also taken from the sky shortly afterwards, shows the clouds of smoke hanging over the M & O factory. Photos taken on the ground on the day of the bombing show dejected workers, lined up in front of piles of starch sacks in a destroyed shed. Two sheds were largely destroyed, and the boarding house, warehouse, gripper, a

loading plant and boiler house were also hit. Jakob: “The more I found out, the more surprised I was that I had never heard about this bombing ten years ago, even though I have been working at Avebe for almost 34 years.”

Honours

Jakob believes it must have been hard on the bereaved families that no attention was ever paid to the workers who died. He says: “This chapter is also a tribute to these men and the families they left behind.”

“This chapter is also a tribute to these men and the families they left behind.”



Working together on the agriculture of the future.

The open innovation programme Fascinating is working on the agricultural sector of the future. A circular agricultural system that balances sustainability, nature, healthy food and economic impact.

Marieke Kanon, Marketing Manager at Royal Avebe and also Communications Project Leader at the ISPT (Institute for Sustainable Process Technology), explains the programme.

“Fascinating is a unique innovation programme in which we collaborate with various parties on the agriculture and food of the future. These include cooperatives such as Royal Avebe, Agrifirm, Royal Cosun and FrieslandCampina, but also knowledge institutions, University Medical Centre Groningen, the University of Groningen (RUG), Rabobank, the Investment and Development Company for the Northern Netherlands (NOM), LTO Noord, the province and the community. We really have to do it together, and this programme shows that very clearly,” Marieke says.

Four key tasks

Fascinating covers four topics:

1. Healthy and balanced diet
2. Sustainable production of nutritional crops
3. Energy-efficiency and sustainable processing
4. Utilisation of residual flows

“By working together on these four tasks, we aim to make the agriculture sector of the future a reality within ten years. That is the dot on the horizon,” Marieke points out. So ambitions are high. “It started regionally, in Groningen, but projects are now also running on a national level, and Fascinating has been given plenty of attention. Eventually, we hope to continue this internationally. All over the world, we clearly benefit from a future-proof agricultural and food system.”

Avebe as one of the founders

Avebe is one of Fascinating’s founders. “Of course, we have been innovating with potato protein for healthy food for decades. Producing and consuming more plant protein - and less animal protein - is important for the climate and our health. This makes it an essential part of the future agricultural sector and an important pillar within the Fascinating programme. This fits very well with our mission,” Marieke explains. “We believe it is important to work for the future of agriculture and are happy to join forces with other parties.”

The power of partnership

“Together, you achieve more than alone,” she continues. “What is unique about this programme is that we work intensively with many parties and share knowledge. Consider the ‘Promising Protein Crops’ project, in which we look into which protein crop best suits which soil type and how healthy those crops are for the human body. Another great example is a project where we are collaborating with Cosun. They get protein from the sugar beet leaf, and we get it from the potato. It pays to join forces and look at processes and areas for improvement together. We are also working with the UMCG and the RUG on a study of anti-nutritional substances that we can extract from potatoes, which are then used as inhibitors against inflammation. These substances protect the potato plant from diseases, and these properties can also be used to inhibit inflammation. Here,

we investigate how potato protein can counteract inflammations such as baby rashes or intestinal infections (such as Crohn's disease). Potato protein can play an important role, not only in food but also in health. In short, we look at the complete picture. And that is also what makes projects like this so interesting."

Proudly moving into the future

When asked why Marieke thinks the Fascinating programme is so important and how she envisions the future of agriculture, she is clear. "We all know something has to change. Social and political pressure has increased enormously. For that reason, we must continue to work together as a chain and offer future prospects for the entire

sector." But there should also be room for pride, says Marieke. "We sometimes forget what we have already achieved as a relatively small country. We are at the forefront of innovation in the agri-food sector, and great things are happening. We as a sector have reason to be really proud of that! And we can also put out that message more."

Visit fascinating-groningen.co.uk or follow Fascinating on LinkedIn for more information.

Marieke Kanon,
Marketing Manager

“We are leaders in innovation in the agrifood sector, we should be really proud of that!”



Stefan Seegers, Agro-Manager



Together at one table.

‘Kitchen table talks’ in the municipality of Gifhorn (Germany)

Introduced a few years ago by Royal Avebe in the Netherlands and now also a tradition in Germany: the ‘kitchen table talks’. In an interview, Agro-Manager Stefan Seegers talks about key issues of the year.

What exactly do the kitchen table talks involve?

The kitchen table talks bring together Avebe board members, the account manager and some growers from the region to talk things over. These talks have been a tradition in the Netherlands for several years. They have enjoyed great success. In Germany, these talks have now been organised for three years. We started this two years ago in Lüneburg and last year in Lüchow. And this year, we will also be having talks in Gifhorn.

What do you think are the biggest benefits of these talks?

That, of course, is the mutual exchange of ideas. The board gains insight into topical issues in cultivation practice and the various regions. Of course, the account managers are always the connecting link between growers and Avebe, but sometimes a direct line to the board is still more effective. Growers are given explanations and information about what is happening internally at Avebe. And why certain things go the way they do.

What is being discussed at the big table, and what were this year’s main topics?

The kitchen table talks allow growers to raise various points of interest. One key issue is pricing. This year, too, we discussed this at length. The key question here was how many potatoes will be delivered to Avebe this year because we can only adjust sales volume and price afterwards based on clear agreements on the A-volumes to be delivered. Besides price, concerns about the



Farmer Hendrik Schünemann from Nordkreis Helmstedt also took part in the kitchen table talks and shared his experiences on behalf of all those present:

What points of interest did you raise during the interviews?

I consider us a newcomer to potato farming, as we have only been growing starch potatoes for Avebe for three years. I thought it was great that the meeting not only gave us the chance to get to know the board but also to meet colleagues from the region who we could talk to about current issues and important topics at other companies. It will be interesting to hear how the collection process will be organised.

What have the interviews drawn your attention to?

On the growers' side, both large and small farms were present, but it became clear that the issues surrounding haulm stripping were similar for all of them. At this point, interesting solution options were exchanged. But the item I was most interested in regarding the collection procedure was also discussed at length. It was clearly explained how and why certain trips and pick-up times are scheduled.

Were there any points or topics that surprised you during these talks?

While discussing the price for growers, we were not given a fixed price. This took us all a bit by surprise. We were asked: "What price do you need, and how do we reach a consensus on it?" All of us had the chance to provide an appropriate answer for all. This further highlighted for me that there is a real interest and willingness on the part of Avebe to hold such talks.

What feeling did you take home with you?

A very good one. In general, the talks were in a relaxed atmosphere where everyone could talk openly and sometimes critically. To what extent our suggestions and the results of the kitchen table talks will now be put into practice will become clear over the coming months.

availability of energy and raw materials were also discussed. How will things progress in the future? Not least, given the changes coming our way in environmental and governmental measures.

What conclusion can you draw from this year's interviews?

The potato growers in the municipality of Gifhorn are very important to us. We would like to work with them even more. I believe this year's kitchen table talks formed a good basis for that. They were very open, factual and, above all, constructive talks, which allowed the Agro Department, the board and, hopefully, growers to gain a lot of inspiration and information. After the talks, we all ended up on the same page, and I went home feeling things had gone very well.

Hendrik Schünemann, farmer



Leader in the US plant-based confectionery market.

It might come as a surprise, but confectionery is a product category that can be made entirely from plant-based ingredients. It is a product that calls for attributes like brightness, elasticity, gloss, shelf life extension and processability. Royal Avebe supplies this with a wide range of special types of potato starch. Dan Bailey, Account Manager, and Chris Ehlers, Sales Account Manager for the western and eastern United States, talk about developments in their home market.

According to market research firm Grand View Research, North America dominated the plant-based confectionery market with a 37.2% share of global sales in 2021. The firm labels the market as a small part of the overall market, or niche market, with both small and large players. The growing use of plant-based sweets can be attributed to the popularity of plant-based diets among consumers.

Avebe offers customers in the North American market several speciality potato starch products and potato proteins to replace gelatine in soft confectionery, for instance. This is because gelatine is an ingredient derived from animals. Soft sweets include meringues and sweets such as wine gums. Avebe also produces texture ingredients for chewy and non-sticky confectionery products and starch for pressed products, such as liquorice fillings.

Different starches

Avebe's main potato starches, which are also used in plant-based dairy, are Perfectagel™, Perfectamyl™ and Perfectasol™. The gelling agents in these starches not only replace gelatine but also improve its value. "Plant-based sweets are more expensive than the standard product, partly because of higher research costs," Chris explains. "This is why manufacturers often use the cheaper corn starch in their products. The potato starch



produced by Avebe leads to a brighter product with higher viscosity and better elasticity. In other words, more value for money.” “The animal gelatine price has risen so high that customers can achieve substantial cost savings by switching to gelatine from our confectionery portfolio,” Dan adds.

Processing conditions

Dan notes that it is no easy task for confectionery manufacturers to switch to plant-based. “After all, it makes strong demands on our customers. For example, the drying conditions are very different when manufacturers use animal gelatine in their sweets. The drying time for wine gums is 24 hours. Our potato starch has a drying time of 48 to 72 hours. Gelatine is challenging to replace. That’s why I

do not see our potato starches purely as gelatine substitutes. I see them as entirely new textures. Our starches are hardly noticeable in plant-based wine gums. In foamed confectionery such as marshmallows, they are. Perfectasol™, for example, is less airy. Since our customers are not necessarily looking for the same textures as traditional sweets, new textures are not a problem and are even sought after.”

Easier to expand

Dan predicts that the plant-based confectionery market is growing little by little and Chris thinks that, although it is now a niche product, plant-based confectionery will continue to grow into different markets. “Avebe is at the forefront of new market developments

and is involved in many projects in this field. We are linked to some big players, as well as smaller startups. All in all, we have made a solid name for ourselves in this area. Other big players are trying to enter the market, but we already have a foothold. That makes it a lot easier for Avebe to continue expanding. Although the coronavirus sidelined us for the past two years, we are now back in full swing and doing fantastic work in this field.”



“The cost of animal gelatine has also risen so much that customers often achieve substantial cost savings.”

Campaign price, potato price & performance price.

So what really goes into the members bank accounts?

And what do we mean by the cooperative performance price?

Royal Avebe uses various terms for its financial performance and potato payments.

What is the campaign price?



- The campaign price forms the base of the potato price received by the members for the potatoes they deliver. The campaign price is influenced by developments in the market and what Avebe can pay out. The campaign price is based on 'standard' potatoes with a starch percentage of 19% and delivered under the A volume.
- The campaign price is not yet known at the start of the potato campaign in August. Avebe therefore operates a base price, paid out after delivery of the potatoes. The base price is an advance on the final campaign price.
- If the market conditions allow, it may be decided to raise the base price during the campaign.

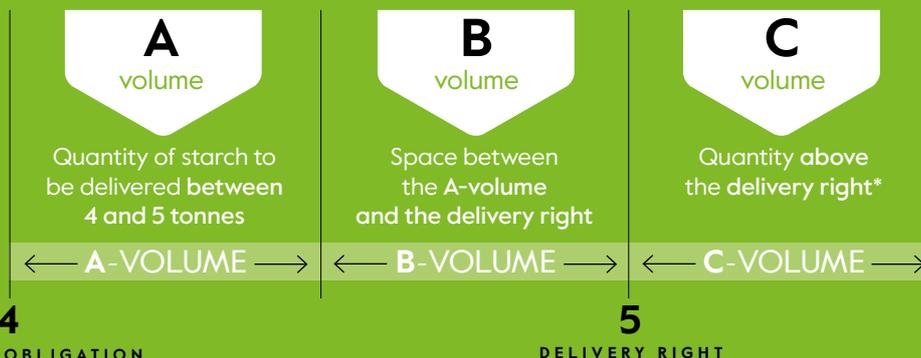


ABC volume

Avebe operates the ABC model for the supply of potatoes. This concerns the quantities of starch delivered per Avebe share. It forms the basis for Avebe's production and sales planning.

What is the difference between the A, B and C volume?

For each share there is a minimum, mandatory quantity of deliverable starch of 4 tonnes a share and a maximum of 5 tonnes a share. Each year, the grower determines the amount of starch to be delivered. We call this arrangement the A-volume. The space left between the A-volume and maximum of 5 tonnes is called the B-volume, or delivery right. The C volume is the amount above the maximum deliverable starch volume. This can only be supplied in consultation with Avebe.



* only be delivered in consultation with Avebe

So what is the potato price?

- The potato price is important to what the members receive. It is the campaign price plus the performance components. The performance components are starch content, delivery time, quality premium and the premium for fulfilling the A volume. Reductions are sometimes applied for tare. This is the 'ex farm' potato price. Loading and transport costs are borne by Avebe.
- Potato prices therefore involve conditions that can vary considerably from farmer to farmer. One per cent of starch above the 19% standard, for example, yields an extra 5 euros a ton compared to the campaign price.
- If potatoes are delivered later in the season, the supplier has usually invested in storage facilities. The payment to the members includes a fee for this. This same applies to delivery very early in the season, once the potatoes have already been lifted but have not yet finished growing. A payment is also made for this. Supplier that fulfil their delivery agreement receive a premium of €3 per tonne on all tonnes delivered.



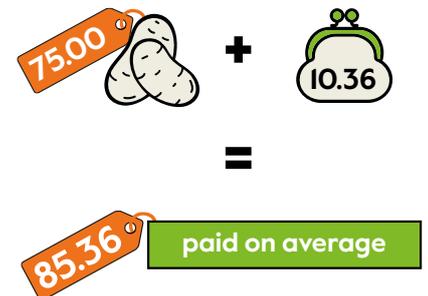
members

campaign price
performance components*
+
potato price

* starch content
delivery time
quality premium
fulfilment premium A-volume

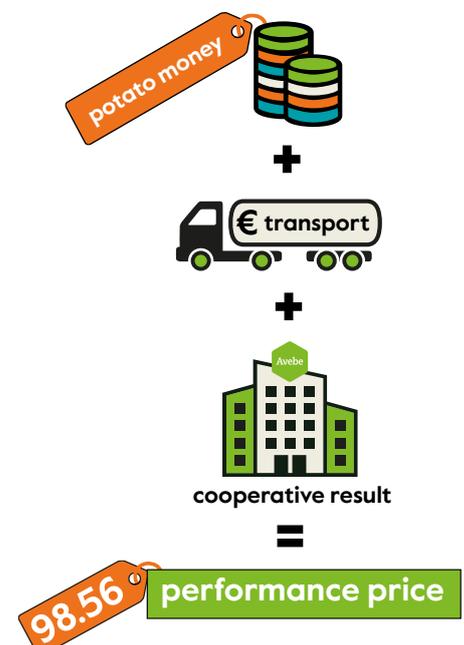
So how does this work in practice?

- In financial year 2020-2021 the campaign price was 75.00 euros for potatoes supplied within the A volume. The average starch content of all potatoes supplied was 20.37%.
- An average of 10.36 euros was paid for the performance components, after deducting any discount for tare. That means that an average of 85.36 euros was paid for the potatoes delivered.



And how about the performance price?

- The performance price tells us how the cooperative is performing. Unlike what the name would suggest, the performance price is not in fact a price. In fact, it is the key indicator that shows us how Avebe is doing. It is an amount that begins with the money paid to the members, including all performance components and deductions. This is what we call the potato money.
- We add this the costs of transporting the potatoes. This amount, which Avebe has paid for the total volume delivered, is then reconverted to a standard quantity of potatoes with 19% starch. This conversion makes it possible and informative to compare several years. There are no influences such as higher starch percentage in the performance price.
- The cooperative's result is then incorporated in the performance price. Part of the cooperative result can be paid out to the members in the form of a subsequent payment if this is approved by the Members Council. We call this a payment from the cooperative result.
- The performance price in 2021 was €98.56.



AVEBE IN FIGURES 2021/2022

Solvency

	2021/22	2020/21	2019/20	2018/19	2017/18
group capital*	211,4	208,6	205,5	203,7	203,6
borrowed capital*	424,9	375,5	284,9	269,7	263,1
total capital* incl provisions	636,3	584,1	490,4	473,4	466,7
solvency	32,5%	35%	41,9%	43,0%	43,6%

* x I mio euro

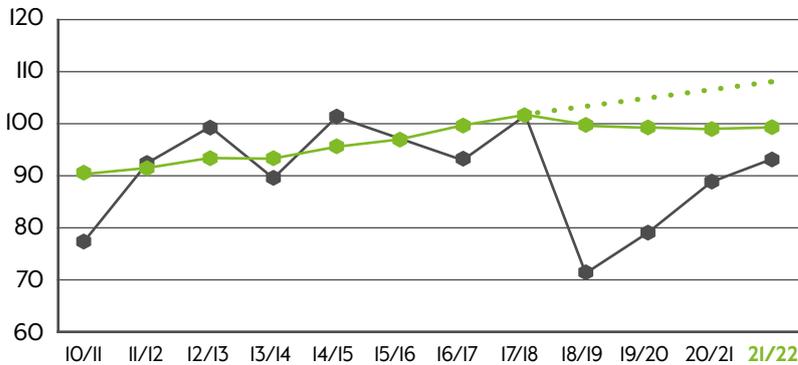


Employees

	average number of	percentage female	percentage male
2021/22	1332	18%	82%
2020/21	1389	18%	82%
2019/20	1381	19%	81%
2018/19	1424	19%	81%
2017/18	1326	18%	82%

Starch yield

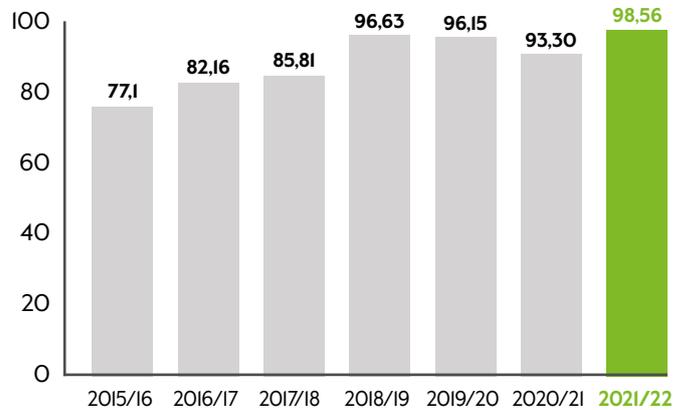
per hectare % compared to 2017/2018



- 10-year average % starch yield per hectare
- % starch yield per hectare
- target % starch yield per hectare

Performance price

per ton of potatoes (euro)



A healthy and fertile soil.



Markus Kaufmann, farmer

Markus Kaufmann is a farmer from Lüchow-Danneberg in eastern Lower Saxony, Germany. Together with Royal Avebe, he focuses on sustainable and efficient processes in growing starch potatoes.

The company KKL Landbau KG, formed in 2019 from two other companies, grows about 110 hectares of potatoes. Of that, about 60 hectares are starch potatoes for Avebe. The remaining 50 hectares are potatoes for processing in the crisps industry. Besides potatoes, common crop rotations on the farm include sugar beet, maize, wheat, triticale and spelt. “For us, sustainable potato growing starts with shaping the crop rotation. We aim for the longest possible breaks of four to five years between potato and potato,” says Markus. This helps prevent crop rotation diseases and give the soil enough time to recover.

Good nitrogen management

To make the crop rotation even smoother, new crops are regularly included in the crop rotation, such as our recent peas

and lupins. Growing catch crops before root crops is important to maintaining soil fertility and health. KKL Landbau KG uses mixtures of oats, leafy radish and legumes. “In part, we also like to use mixtures with vetch because it can also bind nitrogen at the same time. This is a critical aspect for nitrogen management.”

Reducing nitrogen fertilisation

Some of KKL Landbau KG’s land is in red zones (zones where there are strict restrictions on fertilisation). Markus therefore attaches great importance to efficient nitrogen fertilisation with the lowest possible losses. At the beginning of cultivation, row fertilisation with phosphorus, potassium and nitrogen is carried out at the farm.

In total, potatoes are given about 120 kg of nitrogen per hectare. It wasn’t

always that way. A few years ago, starch potatoes were given somewhat higher nitrogen doses. By working with Avebe and using the Averis starch varieties, Markus successfully reduced the amount of nitrogen application and achieved good starch yields. “In terms of nitrogen efficiency (the ratio of useful nitrogen removal to supply), Averis varieties are at the very top. For our farm, growing starch potatoes is an important component regarding cost and sustainability, which also leaves us some space for our fertiliser balance in the red zones,” he explains. “The potato is the most important crop in our business, which is why we are always looking for as much outside information and new working methods as possible. Avebe always keeps us well-informed about plant protection and fertilisation.”

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