A Commitment to Quality

Feistritz an der Drau, Carinthia, Austria

In Carinthia, the Schaller-Anderwald family has built an entire supply chain around potato farming, focusing on quality and carefully selected technology at every stage of production.

by Gabriele Dell'Orto

Family photograph in the potato fields. From left: Simon with his wife Corina and their son Jakob; Simon's father Franz and mother Barbara; his sister Hannah with her daughters Emma and Katharina

Carinthia, in southern Austria, has always been a crossroads for armies and traders: a natural corridor connecting the German-speaking world with the Adriatic Sea and Italy. Surrounded by mountains, its valleys are dotted with beautiful fortresses and castles, once used to defend the Alpine passes. The mountains gradually give way to rolling hills and flat areas along the rivers, where stones in the soil are part of everyday farming life. Working successfully here means knowing every field and adapting the machinery to its particular conditions.

We are in Feistritz an der Drau, in the municipality of Paternion, where the Schaller-Anderwald family has successfully farmed for several generations. Today, the business is led by Simon, an enterprising young farmer who represents both its present and its future. Over the past thirty years, the farm has changed completely. Until the 1990s, the family worked around 20–25 hectares to support a dairy farm. Today, Simon farms approximately 350 hectares, with 170–180 hectares dedicated to potatoes. "About thirty years ago, my father decided to sell all the livestock and focus entirely on potato farming. That was the most important turning point for our business."

From that moment, potatoes became the heart of the farm and the focus of its investment strategy. The family built storage facilities, washing lines and refrigerated stores, developed

relationships with major supermarket chains and opened a farm shop for direct sales. “Potatoes are our main business,” Simon explains. “If the potato season goes badly, everything else goes badly too.”

Quality and quantity: meeting the demands of the market

While 170–180 hectares are devoted to potatoes, the remaining land is mainly needed for crop rotation. This is essential for keeping the soil healthy and ensuring that potatoes can later be grown under the best possible conditions. “After potatoes, we need three years of other crops. That is why we grow corn, rapeseed, oilseed radish, cereals, soya beans and various seed crops. They are important, of course, but their main purpose is to help us produce high-quality potatoes.” Quality is indeed a subject Simon cares deeply about. “I have had seasons with yields of 60 tonnes per hectare, but the quality was not good enough. There is no point in producing large quantities if I cannot sell them properly. I would rather average 40 tonnes per hectare and have potatoes that are healthy, attractive and the right size”.

Size is especially important because most of the potatoes are packed directly for consumers. “The product has to look attractive to the customer. Taste matters, but so does consistency. The potatoes in the same bag should be similar in size and appearance. Technology helps us a great deal with this, especially the optical sorting system used during packaging”.

Fendt 1050 with an Amazone Centaur trailed cultivator, working immediately after the potato harvest. In the background, a Fendt 939 and a Grimme EVO trailed potato harvester unload the crop into bins placed on the truck trailer

The market, after all, leaves little room for mistakes. Most of the potatoes are sold through large retail chains, particularly Rewe and Hofer. “We grow, wash, sort, pack and sell our own potatoes. We do not buy potatoes from anyone else. This is important to us because we know every field and we know exactly what is behind every batch”.

Over the years, packaging has become another major part of the business. Around ten years ago, the family purchased an industrial site just one kilometer from the main farm. “The owner came to us and offered us the opportunity to buy it. It was not an easy decision because it was a major investment.” Since then, something has been added almost every year: storage buildings, processing lines, working areas and refrigerated rooms. “We had building work going on almost every year. We have now reached the point where the facility allows us to work efficiently, with four people employed there throughout the year”.

Truck and tractor shed. The trucks are used to transport bins of potatoes, which can be seen piled in the background. The first truck on the left is a former military 6×6 vehicle. Thanks to its strong off-road traction, it is used to transport potatoes from the fields back to the farm

Last year, a camera-based inspection system was added to the washing line. It checks every individual potato. “The potatoes are viewed from several angles. The system decides which ones should be rejected and which ones can continue to packaging”. After washing, four lines are used to prepare bags ranging from one to 25 kilograms. The farm has also invested in new cooling storage facilities, which are essential for keeping potatoes in good condition throughout the year. “Twenty years ago, storing potatoes was easier. Today, temperatures are much more variable. It is essential for us to have temperature-controlled storage at around four degrees. This allows us to sell potatoes from the previous season while they are still in perfect condition”.

The sales season never really stops. “We sell throughout the year. The new-potato season begins at the end of June. At that point, we harvest only what we need each day, perhaps 20 or 30 tonnes. At the beginning, the skin is still delicate and the potatoes cannot be stored for long. “Orders from supermarkets vary greatly. A very busy period can be followed by several quiet days. Sometimes we have to work on Saturday or Sunday because the product is needed, and then on Tuesday there may be almost nothing to prepare”.

Knowing the soil to get the best results

Preparation of the potato seedbed using a Grimme BFL combined with the Fendt 939. The ridges are formed using bodies with long side mouldboards, which help keep the soil loose along the sides and prevent it from falling back into the newly formed furrow

The farm works with many different types of soil. Simon estimates that there are at least ten, ranging from light, sandy soils close to the rivers to heavier soils that are much more difficult to prepare. There are also dark, wet peat soils where potatoes do not always develop the desired flavour. “The light soils, especially near the rivers, were created by flooding, which left behind fine soil that is easy to work. But if you travel only a few kilometers, you can suddenly find heavy soil that is much harder to prepare.” Simon invests a lot in improving soil fertility and structure. Organic matter is added using cattle manure and poultry manure supplied by nearby livestock farmers. “In some fields, we also spread rock dust,” Simon explains. “It is a very fine mineral powder containing many trace elements. It helps us grow healthier plants with stronger roots”.

The aim is to create the best possible growing conditions, both in dry seasons and during periods of excessive rainfall. Both situations have become more common over the past decade. Farmers in Carinthia must also deal with a very practical problem: stones. They can be especially troublesome during the potato harvest.

ScanStone equipment separating soil and stones before planting, on ridges previously prepared by the Grimme BFL. It works to a depth of up to 30 centimetres and deposits the stones beside the planting ridge

For several years, Simon has used two machines made by the Scottish company ScanStone to separate soil and stones before planting. The machines work directly along the prepared potato beds. “In the past, we needed many people on the harvester just to remove stones. After using the ScanStone, we have a stone-free layer of around 30 centimetres where the potatoes will grow. During harvesting, mainly potatoes and soil enter the machine. “This means better quality, faster harvesting, and we do not transport unnecessary material back to the farm”.

The drawback is the amount of time the operation requires. “In good conditions, you can use the ScanStone at five kilometres per hour. If the soil is tough or wet, the speed can fall to only one kilometre per hour. On average, it takes two to three hours to cover one hectare, even with an experienced operator. In some fields, there are so many stones that there is a real risk of damaging the machine.”

Two ScanStone machines working together to separate soil and stones. The scenic photograph shows the mixture of flat land and rolling hills that characterises an area also known for its beautiful Renaissance castles. The photograph was taken in Launsdorf

Technology for every stage of the growing cycle

The tractor fleet also reflects how the farm has changed over the decades. For 42 years, the family remained loyal to Deutz-Fahr. Then, in 2014, they purchased their first Fendt, a 718. It was the first of many. The fleet now includes a 714, a 716, a 936, a 939, a 724 Gen6 and a second-hand 1050. “A good used machine can do the same work at a much more reasonable cost, provided that you know the machine and have a reliable dealer”.

This leads Simon to speak about the importance of having a strong relationship with machinery dealers, which can often make a major difference. “We have a very good dealer for used

machinery. I can test a machine, work with it for a few hours and then decide. If it is not right for us, I return it and pay only for the hours I used it. That kind of trust is extremely important".

The introduction of modern technology has brought another major change to the farm. "Four of our six tractors have up-to-date GPS and section-control systems. After working for 13 or 14 hours a day, GPS changes your life. You are more relaxed, and the work is more accurate." For Simon, accuracy and appearance go hand in hand. "I like seeing straight, tidy fields. It is another sign that the job has been done properly".

Winter is used for the usual machinery maintenance, in preparation for the field season. In this area, the first potatoes are planted as early as March, while later varieties continue to be planted until May. Pre-emergence weed control follows immediately afterwards. However, summer is the most demanding period for crop protection. "Normally, when we have rain and high temperatures, we need to apply fungicides every seven to ten days. If you do not, and late blight arrives, you can lose a large part of the crop." Insects are another concern, especially during periods with warm nights. "When the nights temperature remain above 20 degrees at the end of June or beginning of July, insects can damage the plants in a very short time".

Amazone UX sprayer with a 36-metre boom. Its twin-tank system allows two different products to be carried at the same time

This is where the sprayer becomes particularly important. Among Simon's favourite machines are those manufactured by Amazone. The newest one is an Amazone UX sprayer with a 36-metre boom and several advanced features. It has an additional tank that can carry a second product, making it easier to carry out different solutions without interruption. In the future, the sprayer could also be combined with drone-generated maps for targeted spraying. "There are companies using drones to fly over the field, identify weeds and create a map. The machine then sprays only where weeds are present. I am actively looking into the available options".

The nozzle system is another particularly interesting feature. "If I drive slowly, one nozzle operates. If I increase the speed, the system changes to a larger nozzle. If I go even faster, two nozzles work together. "It also adjusts automatically when turning. On the outside of the curve, where the boom moves faster, two nozzles operate. On the inside, where it moves more slowly, only one is used." This is especially valuable when treating potatoes. "Last year, I carried out around ten applications. I need to work quickly while still ensuring that the product is applied properly. "When the plants have closed the rows, you need to reach deep into the crop using a large amount of water, sometimes more than 400 litres per hectare. With two nozzles, I can do this without difficulty, even at a good working speed".

Harvesting takes place between August and October, but only after the potato skin has fully matured. “If the skin is not ready, the potato can be damaged very quickly. Once again, choosing the right moment is essential.” On a good day, the farm can harvest and transport as much as 250 tonnes of potatoes. Some of the fields are 60–80 kilometres away, making the organisation of transport even more complicated. “Time spent on the road costs money and produces nothing. If I have to travel a long distance, I need to have a large area of land in the same place. I cannot drive 80 kilometres for two hectares.”

Potato harvesting with a Grimme EVO coupled to a Fendt 939. At least one person is required beside the sorting belt to monitor the process closely and remove any unwanted material from the crop

The family relies on Grimme machinery for harvesting. “In the past, we replaced the harvester every three years. Today, that is no longer possible because new machinery has become too expensive. “To give an example, a harvester like ours now costs around €100,000 more than it did six years ago. I prefer to maintain it carefully, overhaul it before the season and continue working with it.” The same reasoning applies to tractors. Machinery prices have increased much faster than the value of agricultural products.

Fendt 1050 with a six-furrow Kverneland plough. A striking fiery-red sky forms the backdrop as the tractor ploughs corn stubble

Despite the farm’s high level of specialisation, Simon does not consider himself an agricultural contractor in the traditional sense. Contract work represents only around 3–4% of the farm’s activities. “We do some ploughing and soil preparation for other farmers, but our main business is farming our own land and taking over the direct management of nearby farms.” As Simon explains, the entire potato supply chain remains in the hands of the family, from soil preparation and harvesting to packaging. His father Franz and mother Barbara still work on the farm, while his sister and younger brother manage the packaging facility and the farm

administration. In the fields, Simon relies on a small number of trusted workers, especially during planting and harvesting. “I have a friend who has worked with me for twenty years. If I call him and ask him to take a machine to a particular field, I know he will do the job perfectly. He is someone I can trust.” Truck drivers are also needed during the harvest. “We have five trucks: one is used to deliver the packaged potatoes, while the other four transport potatoes from the fields back to the farm”.

Trust as the basis for the future

Trust is a word Simon returns to again and again. It applies to his workers and machinery dealers, but also to customers and landowners. Each year, Simon rents fields from 15–20 different farmers, often for only one season. This allows him to grow potatoes before returning the land to the owner’s normal crop rotation. “Not every field is suitable. Some are too wet, some are too hilly, and others have the wrong type of soil. But obtaining land is difficult because many livestock farmers need their fields to produce animal feed and are not willing to rent them out.” When Simon begins farming in a new area, he often feels that people are watching him closely. “Other farmers may observe how you work for one or two years. They look at whether the field remains clean and whether you do things properly. After that, they may come to you and offer you their land for potato growing.”
Speaking about the future, Simon says: “I am not looking for growth at any cost. Looking back over the past ten or fifteen years, many opportunities came naturally. But you must always be ready and keep looking ahead.”

Alongside farming, Simon also devotes a great deal of attention to communication. Through his Instagram page, “simon.the.famer”, he shares everyday life on the farm. “I try to show the many sides of agriculture: the beautiful conditions and the machines at work, but also the breakdowns and the long nights needed to bring home a good harvest. I want people to understand how much work lies behind the food they eat.” Then there are his two sons. “The oldest is eleven. The youngest, Jakob, is three and completely obsessed with machinery. When I come home, the first thing he asks is: “Dad, are we going to the field? Can we drive something?’” In a way, the future is already sitting in the passenger seat.


Simon with his youngest son, Jakob, standing in front of the Fendt 1050

To wrap up, Simon says: “the farm works only because we work together as a family, without looking at whether it is Saturday or Sunday. When the work has to be done, we do it”. The success of the farm is not measured only in hectares. It comes from the ability to bring together quality, timing and trust. As Simon often says, “People will only place a field in your hands if they trust you”. For a crop

such as potatoes, where every stage leaves its mark on the final product, that trust is probably the most valuable asset of all.