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Filipe Lopes thrives on innovation in strawberry growing: **‘Important to exchange ideas, share experiences and discuss solutions’**

Economics graduate Filipe Lopes set up his own 1 ha strawberry farm in Pombal, Portugal, approximately five years ago. He has since built a successful business supplying high-quality strawberries all year round to local fresh produce markets, supermarkets and food service customers. He was particularly attracted to strawberry growing by the opportunities for innovation and collaboration.

After graduating with a degree in economics from the University of Faro in the Algarve region, Filipe Lopes was keen to return back to the area he grew up in: Pombal, located

roughly halfway between Porto and Lisbon. “There was little work in that region due to the financial crisis and a sustained lack of investment. I’d heard about the government’s ProDer scheme to encourage young people to move into agriculture and horticulture. In Portugal, we have the ideal climate to grow almost anything we want, so the idea appealed to me, but I wasn’t sure which crop to choose,” says the grower.

He set about building a business case, analysing the sales potential and competitive landscape, and eventually decided on strawberries. “There’s a lot of innovation and opportunity for technological progress in straw-

berry growing, so it tends to attract more young growers,” he explains.

Back home

“It felt good to come back home, not just because of family, but also because I believed I could create a successful niche for myself here, even as a small grower,” says Lopes. And he was right. He now supplies fresh strawberries every day to markets and supermarkets in the Pombal area.

“My retail clients can offer consumers a fresh, high-quality product that is grown locally, while benefiting from a longer shelf life and hence less waste,” he continues. “I also supply

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Fresh, high-quality strawberries all year round for the food retail and foodservice.

to a lot of local patisseries, restaurants and ice-cream makers. They are a good sales channel for strawberries that are a little smaller or

misshapen, which still taste good but are less appealing for consumers.”

Supply and demand

Because his clients have a year-round need, the grower works with two varieties to enable an almost continuous supply. His main variety is Fortuna, taking up around 75% of the greenhouse, and picking runs from late November through to May/June, depending on the weather. San Andreas, the second variety, is planted in the other section of the greenhouse in early January and the first production lasts from April until August. “In August I can stop for around six weeks by cutting the plant, then it starts producing again until November/December,” he adds.

“The key season for me is autumn, when supply is low and demand is high, meaning that the price is higher too. The first production of Fortuna is timed to end just after Christmas, when there is a drop in demand. Then the second, stronger production starts in late January and runs until Easter, which is a popular time for eating strawberries.”

Fortuna produces 500 to 600 g per plant, whereas San Andreas achieves a higher yield of nearly one kilo per plant but peaks when prices are lower. Lopes has been trying out

various approaches as he gains a better understanding of the market, but his annual yield is currently around 60 tonnes of fruit per calendar year.

Cost-effective shading

His strawberries are grown in a 10,000 m² macrotunnel greenhouse. Around 6.5 metres tall at its highest point, the bigger air chamber helps to keep the temperature stable and minimises the stress on the plants. There is no heating. “It would help in the winter because it can get a little cold at night. But it’s too expensive because of the high energy costs in our country and I can manage without it,” he says.

In the summer, the heat can pose a problem if the temperature rises above 35°C. “We paint the plastic roof with a UV coating – such as ReduSol from ReduSystems – every May/June, which washes away when it rains again in September/October. It’s the most cost-effective solution for me right now,” states Lopes. The climate poses several other challenges, such as during daily harvesting in the summer; picking has to start early and finish quickly before it gets too hot.

The grower receives help from his father, plus a team of around ten local people who



A UV coating is applied to the greenhouse roof every spring as a cost-effective solution to protect the crop against excessive heat.



The strawberries are grown in a 10,000 m² macrotunnel greenhouse.

work on a flexible, part-time basis for planting and picking. “Labour is one of the main costs in agriculture so to minimise the costs I only bring in people when I need them. But there’s also a labour shortage so I sometimes end up doing it myself”, admits the young grower.

Customised growing system

The higher level of air humidity in the north of Portugal can make it difficult to strike the right balance between the climate and irrigation, both in the summer – when more frequent irrigation is necessary – and in the winter, when the strawberries are particularly susceptible to fungi, moulds and root rot caused by the colder and darker conditions.

Therefore, Lopes works with a five-tank precision irrigation system in combination with a customised suspended hydroponic gutter system supplied by Dutch firm Meteor Systems. “I knew right from the start that I needed an innovative growing system with optimum drainage to maintain the ideal humidity in the root zone. In Meteor Systems I found a partner who was professional, understood my needs and helped me to make the best decision for my specific situation,” he comments.

Future plans

As an entrepreneur, the grower is very focused on innovation. He receives valuable technical support from agronomic engineer Luis Ventura, another young strawberry grower based closer to Lisbon: “He has a farm where he runs lots of trials to see how different plants react to different inputs in terms of irrigation and substrates. We speak on the phone almost every day and meet up regularly. For me, it’s

important to have a network of good people to collaborate with – to exchange ideas, share experiences and discuss problems and solutions. The younger generation of growers are generally more open to doing this; we’re keen to foster technical innovation and help each other to grow the best strawberries possible – but I guess we also need this support more than experienced growers.”

In the longer term, Lopes has various ideas for expanding his business, including moving San Andreas outside, building another, smaller greenhouse and/or adding a different crop. Another topic on his mind is the potential reuse of irrigation water: “There’s still a lot of progress to be made in irrigation here in Portugal. We want and need to reuse more water, but we’re still struggling to find the right way without affecting the quality of the plants.”

Summary

What Filipe Lopes lacked in horticultural or agricultural experience when he started out six years ago, he made up for in business acumen. After graduating in economics, he took advantage of the Portuguese government’s EU-funded ProDer programme aimed at encouraging young entrepreneurs to move into agriculture. Since then, and still just 32 years of age, he has built a successful year-round growing business yielding 60 tonnes of strawberries a year.



Silicon Valley for Flowers

I’m writing this from 30,000 ft as I fly home from another trip to Holland. I go once per year, sometimes twice, for a week of business. I continue to be astounded by the level of competition and sophistication every time I visit. Every year the bar gets raised. Nearly every grower I visit and every supplier I meet with is doing something innovative and executing it at a high level. I tell my friends in California that Holland is like Silicon Valley for flowers.

Probably a decade ago, I determined that a good formula for success in the USA would be achieving just 85 percent of the production efficiency of an average Dutch grower. I mean in the measurable things like growth speed, scrap rate, and flowering percentage. I’m not sure where 85 percent came from, but it seems to work. We’ve certainly gotten better and better in the last several years and sometimes I think we are hitting that made-up number. But in Holland the bar gets raised again and we never seem to catch up.

I don’t mean to imply that it’s easy to do business at home. We don’t have the industry support that exists in Holland. If the potting robot breaks down, we fix it ourselves. If we want to compare notes with another grower, it’s a 4 hour road trip not a 10 minute jog. If we hire a new grower or sales rep, we need to teach them the business, not reach into a deep market of professionals.

All the growers, suppliers and professionals clustered together in Holland push and pull the industry forward. But this leads to fierce competition. I studied economics as an undergrad, and I think they call this perfect competition: many suppliers, many buyers, homogeneous quality, and price transparency. The theory of perfect competition says that profits get driven to zero over time. We see that happening in orchid production. You won’t get away with 85 percent in Holland.

Toine Overgaag
Orchid grower in the USA