

IFF Aims To Boost Turkish Rose Oil Quality and Yield

International Flavors and Fragrances (IFF) is currently conducting work to improve the quality of rose oil in the southern province of Isparta, the center of rose production in Turkey, in order to offer perfumers a new tool in the palette.

“In the case of rose, we are just initiating and implementing the necessary actions to deliver down the road, and probably within three to five years, product that will be substantially better and less expensive for the consumer so the perfumer can use more and deliver a better composition to the consumer,” says Bernard Toulemonde, general manager, IFF-LMR.

“Because we believe that [if] we are able to put a better product on the market which is affordable, that the consumer and the customer will continue to buy it,” he adds. “If we keep increasing the cost, we will reach a point where no one would afford our product anymore.”

In fact, IFF has already achieved similar success in iris and black currant and plans to implement this same business strategy with rose in Turkey. In the case of rose, IFF has made an exclusive agreement with one of the producers of rose extracts in Turkey, Erçetin Gülyacı Company.

The producer and IFF have exclusive access to a facility that can process about 2,000 tons of petals. IFF also completed research and development to identify and hone in on the drivers to obtain better quality at a higher yield at a lower cost, which was achieved. IFF is now in the third stage, which is putting in place new rose fields and they will evaluate their findings from the research stage.

“I know it sounds very ambitious, but this is a very successful way of doing business, and rose is one of the several examples we have where we have achieved these goals,” says Toulemonde. “Hopefully this will show that we’ve been able to increase the yield and produce a better quality [of rose]. If it works, which we all expect, this will all be shared with the farmers who are willing to partner with us.”

Through the process, IFF initiated a contractual farmer system process in order to get higher quality roses. The Erçetin Gülyacı Company is IFF’s exclusive partner in the region. It owns the plants in Turkey to process the flowers.

The partnership, which eventually produced IFF’s rose water essential product, formed in 2007 and delivered the first oil in 2008. Since then, IFF has been processing and cultivating rose in Turkey under this partnership, which already has produced five crops.

“Before this, we were just buying [rose] oil in Turkey,” Toulemonde says. “Eventually, it was the intention of IFF to work more closely with the supplier to achieve the improvement [in rose oil]. The idea was to “partner with these people and try together to build a system that is delivering better quality and higher yields, and share the benefit of the profit of the supply chain equality with the supplier, which is most of the time the farmer, the consumer and ourselves.”

In 2011, IFF processed 6,000 tons of roses to deliver one ton of essence. “It’s very small. This is one of the reasons for which such little science of technology has been applied to these markets—to these products. In terms of value, when you know that a kilo of flowers is worth about one U.S. dollar, tells you that the total value of the flower in Turkey is not more than \$6 million,” Toulemonde says.

Still, in the end, IFF says the goal is to produce a better quality product and to help perfumers use more of this ingredient. And it ensures that IFF has both a sustainable business and growth through scientific and technological advances, since the company shares the profit between the various stakeholders.

IFF couldn’t disclose the exact cost of the investment, but Toulemonde says, “It’s very significant when you compare it to the total outcome in terms of value.” But for IFF, the value is also measured by its composition. “Even though it doesn’t pay in itself for the value of the [rose], it does for the value of the fragrance, which is designed using our ingredients,” Toulemonde added.

IFF’s Turkish rose oil plant is designed to process a little more than 2,000 tons of petals. “Unfortunately at the moment, we don’t have enough flowers to fill it to complete capacity; this is our expectation for the years to come,” Toulemonde says. “What is not available is good-quality material to supply our plant. The quality of the material is key in our product. What we are doing is implementing new ways of cultivation to deliver superior quality of rose that will fill our capacity in this country.”

Toulemonde adds, “The consumer is getting better quality and the farmer is getting more money.”

In particular, IFF has a set of partners who select the best value of the rose that would produce a higher quality of rose essence. At the same time, IFF and the farmers aim to direct the cultivation in the most environmentally friendly way possible.

The collection and all of the logistics, which IFF has refined extensively over the years, come next. “We found better conditions to pick the flowers and then carry them to the plant. At the plant level, we did improve the technology by bringing a couple of modifications that delivered a higher yield, and above all, a better quality essence,” Toulemonde added.

IFF is processing rose in Turkey through the traditional route of steam distillation and solvent extraction, which is later turned into rose absolute. Both processes can be conducted at IFF’s facility in Turkey.

The newest innovations in this part of process have involved technology and equipment. However, the basics for processing rose remain the same. IFF recently invested in research around its Turkish rose oil partnership and has paired its internal research team with experts within academia.

In 2008, IFF evaluated what could be improved in the technology of extraction and the logistics around the flower. From 2010 to 2012, IFF evaluated the genetics and the metabolism of the rose to better understand what would deliver better oil quality.

“[Next year] is the next phase of our project, which is implementing cultivations according to our findings of the first five years of our collaboration,” Toulemonde says. “It took us five years to evaluate and find out the conditions or obtaining better quality oil. And now, we are in the process of planting and this will deliver better quality in three years down the road. So we will collect the first oil in 2015.”

Ultimately, “The farmers [will] be able to make more income and we will be able to supply perfumers with high-quality material,” he adds.