

Room Table: Industrial Perspectives for Saffron

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Abstract

The theme of the discussion of the table is the perspectives for saffron market and after a short presentation about present market situation the discussion took place between participants.

INTRODUCTION

My name is Jean Marie Thiercelin. I am managing a family business with my wife Enriqueta. This family business has been founded in 1809 in Pithiviers, France. We are dealing with saffron for more than 190 years and it is a unique experience raised from father to son for six generations now. I am member of French standard organisation AFNOR and particularly involved with saffron standard for more than 20 years.

Before starting our room table and to illustrate our discussion I would like to raise a few questions to draw your attention to today's saffron market situation.

WHAT IS TODAY'S SAFFRON WORLD PRODUCTION?

In terms of quantity what is the production we are talking about and from where commercial saffron is produced. To properly assess the world production of saffron is not easy because statistics are not reliable but I propose hereafter a generally accepted realistic estimate of today's saffron production in the world (Table 1).

WHAT IS SAFFRON MARKET TODAY?

Another important question is who are the consumers of saffron nowadays. This is another difficult assumption to make, as, again, statistics are not reliable even if customs tariff has two separate codes for saffron threads and for saffron powder. The following table gives a pretty good idea of consuming country.

Traditional uses of saffron, as perfume, medicine and dye are no longer. Nowadays it is mainly as a spice.

The three main markets are:

- Industry: food industry mainly,
- Catering: restaurants,
- Public: end users.

Consumption is rising but not as fast as production. Consumer is confused with quality differences, prices fluctuation. Consumer has lost references about quality and uses.

It is recommended to educate end user, to promote saffron quality, develop saffron uses.

WHAT IS SAFFRON RIGHT PRICE?

For any buyer, professional or end-user, the main question is how to get the good value for the money spent.

Saffron prices per kg may fluctuate in a range of 1 to 60 as it is shown here below:

- From 500 €to 1.500 €paid to growers and exporters
- From 1.500 €to 3.000 €paid to traders and distributors
- From 3.000 €up to 30.000 €paid by the end users.

The prices are depending on purity, quality, distribution channel, quantity,

packaging. But most of saffron in bulk is sold at less than 450 €/per kg nowadays. Then it is difficult to ensure proper return to growers, to traders or processors and to end users and most of the time quality is the looser.

WHAT IS SAFFRON QUALITY?

Saffron is the most rare, most expensive and most adulterated spice. Saffron is the spice made of the aerial part of the dried pistils (stigmas) of the flower *crocus L.*

Before any QUALITY evaluation we have to ensure PURITY. There are three main adulterations:

- Wrong denomination (turmeric, safflower, carthamus, stamens, etc.)
- Product substitution (oil, minerals, sugar, starch...) for weight and value
- Artificially coloured styles (with food and non-food dyes) and/or artificially flavoured (with synthetic safranal).

IS THERE A QUALITY CONTROL TOOL?

A complete tool, regularly revised, is ISO Standard. The last revision is ISO/TS 3632.1/2-09/2003 (table 2) and includes methods and specification.

- Physical evaluation:
 - Aspect, floral waste, foreign matter, odour, taste.
 - Macroscopic and microscopic examination.
- Chemical evaluation:
 - moisture and volatile, colour strength, bitterness and aroma
 - spectrometry, thin layer chromatography, high liquid performance chromatography.

WHAT FUTURE FOR SAFFRON?

We should bear in mind the following assumptions:

- There is no future for good product unless there are good customers (aware and demanding).
- Saffron is not just a commodity it is a noble product.
- Like our farmer friend who cleans out his saffron field from weed we, as saffron professionals, have to promote only pure, genuine, quality saffron and work against the wrong product.
How to do it? Let us discuss about it now.

PRESENTATION OF PARTICIPANTS

See list with presentation of room table participants.

DISCUSSION

Dr. Jürgen Rohmeder: “Saffron is an exclusive, precious spice, which cannot be used only as a dye but much more for its unique taste. We have to promote its use, as it is not a necessary item. We have to tell customers how it is so luxurious, exclusive and irreplaceable. We all suffer from adulteration and to compensate to educate users.”

Mr. Harpreet S. Chhabra: “With saffron colour should come second and taste comes first. Also it has been used in India as a medicine for more than one thousand years. It is used to cure many troubles and diseases as stomach, blood circulation et cetera. And scientist should work on it as it will help to increase market.”

Mr. Farhad Saharkhiz: “The mass production, as we have now in Iran is a key element for developing the market. It reduces the cost and everybody can use saffron then. But we should not forget quality.”

Mr. Saeed Ghafarzadeh: “That is now 18 years we are dealing with saffron and our main aim has been always to control the quality. There are many bad qualities in the market. Representing more than 90 % of saffron world production we have to control the quality with the best equipment, ISO procedures. Iran production will be this year 180 tons according to Mr. Shariati. We have to fight for new markets as new medicine for

instance. Our laboratory has been investigating about anti microbiological agent of saffron. Saffron can be used in many different occasions.”

Sr. Antonio Garcia: “The danger of adulteration is that creates confusion for the user and then reduces the consumption. It is a danger for the product and for the consumers. With the association “Azafrán de La Mancha”, the consumer knows what he is buying, which quality he is buying. The future of saffron is brilliant for its own properties.”

Mr. Ali Shariati: “We are producer and exporter for 12 years now. We are saffron industrials. We put in place a factory to toast saffron, to process with laboratory, ISO and HACCP. Five years ago there were only 5 companies. Now 20 companies are certified, with very good laboratories producing good pure saffron. In the next ten years there will be 10 to 50 more factories to pack and process new products. Being the biggest producer in the world we are worried by adulteration. Emirates and Spain are adulterating saffron in many different ways offering saffron mix with 100 colour units as colour strength when pure saffron is at 220/240. Future can be good or can be bad. The potential is huge. In Spain 700 tons of “colorante” which is tartrazin is used instead of saffron. And Iran can produce 300 tons of saffron.”

Sr. Blas Herrero: “Our company is dealing with saffron for more than 100 years. I am in this business for 24 years now and I have seen a lot of changes in this market. If technicians and scientist may agree, it is more difficult for business people. Industrials are responsible for the quality. The exclusivity has caused a prejudice to the saffron market. If the price per kilo is high the cost of use is very reasonable. Use must appreciate the flavour, the taste and the aroma of genuine saffron.”

Chairman: Jean Marie Thiercelin: “Being the major producing country, Iran has a great responsibility, how are you going to manage that situation?”

Mr. Saeed Ghafarzadeh: “18 years ago Spain and Iran were producing the same quantity, about 35 to 40 tons. Our revolution, the decrease of the value of our currency, and our efforts made of Iran the current major producer. If other countries want to produce saffron they have to do it by themselves.”

Mr. Harpreet S. Chhabra: “It is necessary to increase the revenue of farmers. There is a danger that production grows faster than consumption. Saffron is becoming very cheap to use.”

Dr. Jürgen Rohmeder: “Iran dominates the production of saffron and still suffers from a lack of transparency not being mentioned as such. Iran has to promote its saffron. There is another question I consider important: What do we know about consumers’ expectations about saffron. No investigation is done on that aspect.”

Sr. Antonio Garcia: “Spain has given the first stage to define which type of saffron the customer may buy. But the consumer is mistaken when he is looking for Mancha saffron. The origin of saffron should be clearly mentioned. Iran is not doing it yet.”

Sr. Blas Herrero: “Studies have been made about consumers’ expectations. Spain has been using saffron during 500 years. But since post civil war period the dye “colorante” has been used and saffron has been only for export. For bigger profit industrials do not mention the origin of saffron. They do not teach and educate the consumer. There are no clear and widely accepted rules and laws about saffron. ISO standard could be the tool for consumers to know what they buy.”

From the assistance (Dr. Fikrat Abdullaev): “You mentioned three main markets for saffron consumption. The main increase will come from final users. It is known that 40 % of people will have to suffer from cancer. If we prove that saffron may contribute to prevent saffron many people will pay attention to saffron. So please invest money in our investigation laboratories.”

Dr. Jürgen Rohmeder: “We cannot mention any medicinal benefit as such. It costs millions to come to a pharmaceutical medicine. Additionally, if this has been proved pharmaceutical laboratories will work on a synthesized molecule but not promote saffron consumption.”

Mr. Saeed Ghafarzadeh: “Saffron is not only a commodity, it is a gift for

everybody. We have a document translated in Farsi, Arabic, English and Spanish to present all the benefits saffron can bring to our lives. It is not only a profit merchandise”.

Mr. Farhad Saharkhiz: “Development of new product with saffron by food industry is very good for consumption. In Iran more customers become more familiar with saffron. More people will be used to its smell, taste and not only colour.”

Mr. Ali Shariati: “Saffron consumption is growing and more investigation is done about saffron. Why Spain is more used to coffee than Tea and Iran the opposite? We have to introduce saffron taste to as many as possible customers. We produce different product with natural saffron flavour. Our cake preparation with saffron is getting a great acceptance in the domestic market. There are many different possible uses of saffron: beauty cream, liquor, pasta, etc.

From the assistant (Prof. Alireza Koocheki): “We are facing two contrasting issues, in on hand the biotechnology and on the other hand the ecology. Saffron is one of the oldest organic products. It has always been a family product. Big companies cannot master saffron production. It is produced by poor people and in a way there is a true exploitation of poor labour by traders. Those who trade with saffron have to help. What can be the fair trade with saffron? Growers and customers are not getting the right return.

Chairman: Jean Marie Thiercelin: “Is there any room for fair trade in saffron business?”

Dr. Jürgen Rohmeder: “This is a similar situation with coffee between European buyers and Costa Rica growers. The solution is establishing direct connection between producers and final users. But this is not applicable to saffron because it is not produced in so poor conditions.”

Sr. Antonio Garcia: “In Spain, when we were the major producer the farmers were manipulated by the trading companies. In our association we are four growers and four trading companies. With four years of experience we can say that we work more in favour of growers. We advice every country has to do the same. I must say that when we started we were producing 300 kg but now we are selling more than 3000 kg. We are developing other kind of activities like selling bulbs and are getting more growers involved.”

Sr. Blas Herrero: “We have to develop new markets to increase consumption. But most of the time the consumer does not know what he is buying. We accept to have in the market saffron product with 100 colour units. There are products with best before period of seven years when after two years product is not the same quality yet. These facts are destroying the confidence of customers. The bad advertisement is killing the good product.”

Dr. Jürgen Rohmeder: “The Diamond association is a good solution. Under a voluntary declaration and acceptance of common rules they found a way to maintain reliable relationships. Why not thinking about a World Wide Saffron Association to fix those common rules for everybody involved with saffron?”

Sr. Antonio Garcia: “This first symposium is a first possibility for exchange and let make it useful as a possible response”.

From the assistance (Prof. Maria Z. Tsimidou): “In Kozani, 15 years ago we told them to go only for quality, but, nowadays, we are nobody wants to be involved any longer with saffron. The association is losing money and contacts with buyers. Iran has a great responsibility in fixing up the rules and the ethic. ISO is not a law and FDA is against natural products. Saffron is a noble product not a commodity. May be taking into account of the example of Olive oil association to promote the product. What is the Iranian proposal?”

Mr. Saeed Ghafarzadeh: “We know we have a great responsibility. The private sector in Iran is very active, with highly sophisticated equipment. We sell only 100 % pure saffron. But Spain is not exporting the saffron they import as it is.”

Sr. Antonio Garcia: “Product should be clearly identified, follow our example.”

Sr. Blas Herrero: “Spain is the biggest importer of saffron, it is your first customer. You know the companies, which are not doing well. Don’t sell to them.”

Mr. Ali Shariati: “80 to 85 % of Iranian saffron has 240 colour units, we have

even at 300/320, why ISO standards has a category at 100 colour unit. Why, if saffron in bulk is sold at 450 €/per kg we find saffron retail small packaging at less than 300 €/per kilo. There is a big demand for stamen in Spain to mix with paprika and other products.

Mr. Harpreet S. Chhabra: "I confirm there is a great demand for stamen from Europe. There are bad apples everywhere. Colour strength of 240 at the crop period is Possible but it drops very easily and very fast down to 150/180."

Sr. Blas Herrero: "Once again, adulteration is important but we know the companies."

Mr. Ali Shariati: "In Spain there are 12 to 20 big companies but more than 200 small ones and may be 50 % of them are selling adulterated product. How Spain that is importing about 40 tons can export 60 tons and 10 to 15 tons out of it under Mancha name even with the logo of the association "Denominación de Origen".

Sr. Blas Herrero: "Yes, there is many small companies which sell adulterated saffron but that does not mean that all Spanish saffron or sold by Spain is adulterated."

Sr. Antonio Garcia: "The name Mancha is used for a lot of product in many countries and we are going to sue those who are not using properly."

Mr. Ali Shariati: "Having an International Society for saffron is a good idea to exchange points of view."

Mr. Harpreet S. Chhabra: "Being outside Europe an International Society for saffron would help."

Sr. Blas Herrero: "ISO is already a great forum about saffron, we have it, make it working much better, we have to use it."

Dr. Jürgen Rohmeder: "ISO is valid to fix an ethical code on product specifications. But we need a tool to sanction the company which not acting the right way. May be the unfair competition case to be brought to international trade court."

Mr. Saeed Ghafarzadeh: "We ask for more relationships and I must say that we are very satisfied with our relationships with our customers and Spanish clients."

From the assistance (Sr. Valeriano González): "As a testimony I want to draw your attention to the following. Spain since the 9th century up till now, that is more than 1,000 years, has been selling saffron on the international market. Adulteration has existed and will forever. ISO is the unique tool to solve the problem with a lot of ethic. But it is not finished and will require a lot of work for the laboratories. The consumer still does not know what he should buy. We need to have only one language and to talk with the same voice. It will take time.

Chairman closes the discussion, thanks the public and all the participants.

Tables

Table 1. Estimate of saffron world production in 2002 (table 1).

QUANTITIES	COUNTRIES	QUALITIES
150/170 MT	IRAN	Sarghol, Poushal, Dasteh
8/10 MT	INDIA (Kashmir)	Mongra, Lutcha
4/6 MT	GREECE	All red
0,8/1 MT	MOROCCO	Talliouine
0,3/0,5 MT	SPAIN	Mancha, Río, Sierra
100 kg	ITALY	Sardegna, Aquila, Cascia
10 kg	TURKEY	Saffranbulli
4/5 kg	FRANCE	Gâtinais, Quercy
1 kg	SWITZERLAND	Munt

Table 2. ISO/TS 3632.1&2-09/2003 categories specification extract.

Categories	1	2	3
Colour (crocin, 400 nm)	190	150	100
Aroma (safranal, 330 nm)	20/50	20/50	20/50
Bitterness (Picrocrocin, 257 nm)	70	55	40

List of participants

Mr. Harpreet S. Chhabra, President, Baby Saffron Co., Delhi, India
 Mr. Saeed Ghafarzadeh, President, Techno Pan Co., Mashad, Iran
 Mr. Ali Shariati, President, Novin Saffron Co., Mashad, Iran
 Mr. Farhad Saharkhiz, Managing Director, Saharkhiz Saffron Co., Mashad, Iran
 Dr. Jürgen Rohmeder, Manager, Saffranarie GmbH, Mund, Switzerland
 Sr. Antonio Garcia, President, Consejo regulador de la D. O. “Azafrán de la Mancha”, Toledo, Spain
 Sr. Blas Herrero, Managing Director, Verdu-Canto Saffron Spain, Novelda, Spain
 Mr. Jean-Marie Thiercelin, President Tradimpex Jm Thiercelin Sa, Paris, France