

# MEDITERRANEAN Gardening

AND OUTDOOR LIVING

2.50 Euros (Cont.) APRIL 2015

## The Rose of Saffron

The Worlds most Expensive Spice

Inside an RHS Gold Medal Garden

Why Employ a  
Landscaper?

Angels or Devils  
Trumpet?

Choosing your Lawn

Top Tips for  
Growing Tomatoes

GARDENING AND OUTDOOR LIVING



**Keyhole Gardening**



**Little Owl,  
Big Personality**



**How to Mow  
the Lawn  
Correctly**



Some spices cut like a knife, but sultry saffron envelopes classic ingredients with an alluring colour and scent that can be difficult to describe. Use a blindfold on your keenest gourmand and see if they can identify the taste and aroma of this ancient culinary additive! To this day, the Castilla La Mancha region of Spain, with a unique combination of soil and climate, celebrates a thriving tradition of cultivating the "rose of saffron." With a little background information, you can savour and grow this revered spice of legendary heroes and gods. Easier to grow than vegetables, anyone with a sunny window or garden spot can have enough of this ancient luxury for cooking those golden autumn dishes or perfuming a cup of tea. Sometimes called "red gold," it shouldn't be confused with often suggested substitutes like paprika or turmeric, there is no substitute for the real thing.

The value of saffron was once so clear that it was used as currency. At approx. 2,000 to 10,000 € per pound, it costs more than truffles or caviar. Why? It takes 14,000 filaments to make an ounce, there are several middlemen between the co-operative farmer and the end user, and prices are related to the amount of saffron harvested by location and it is labour intensive to produce. However, a little goes a long way so the pinch that goes into a recipe is an affordable luxury. For example, at 70.00 € an ounce (28.35 grams) you may only need to spend 10 cents per serving.

The long history of saffron has carried it across many civilizations since depiction on pottery shards of a Minoan goddess overseeing the harvest of saffron stigmas from a location destroyed by volcano around 1500 BC. Reportedly, the royal kitchens in the Zargos mountains

used a kilo every day and oil of saffron from the Cilician town of Soli (modern day Turkey) was one of the highly-valued "foreign essences." More than just a luxury, there are examples of saffron used as a spice, perfume, hair and clothes dye, and as a medicinal herb throughout history. The rarity and value of saffron led to mythological stories of gods, nymphs, and unrequited love. Cleopatra, Nero, and Alexander the Great bathed in it, depended upon its healing and aphrodisiac powers, offered it to the gods, and coloured their robes. It is interesting that Sumerians used saffron but rather than cultivating it, collected it from the wild, believing that only then would it have the desired magical properties. As conquerors moved their armies and their households from the Mediterranean region to Europe, Asia, and across the oceans, the coveted *Crocus sativus* corms travelled with them. The saffron also changing in quality, colour and potency with each new landscape and civilization producing it.

The origin of the word saffron is just as complicated as the spice itself so here is a short explanation. It seems likely to come from the Latin *safranum* (safran from the French) and from the Persian za'ferân (za'faran when "Arabicised"). The Portuguese açafão, and Spanish azafrán comes from the Hispanic Arabic al-zaferán, which comes from the Arabic (Z'.fran). However you recognize the name, the important thing is that all derivations refer to the yellow colorant derived from tiny threads in the flowers, the stigma.

And, as you will soon learn, it is no exaggeration that it is all about the stigma! To understand a saffron stigma, you have to know a little flower anatomy and sex. In the centre of the petals are male and female organs, i.e. stamens and style. The stamens are the male part with no culinary

value and are not a part of saffron. However, being bright yellow, in Greece it is sometimes used as a paint colorant and sadly appears as a filler in saffron products. The style has no culinary value either (as long as 3 cm it curls after drying so you can hardly see it) but it joins the all-important stigmas to the flower. Each crocus flower has just 3 stigmas that look like thin red threads or filaments and they alone become saffron (each weighs 2 mg and are 3 to 4 cm long). It takes about 250,000 flowers to make one kilo of saffron. If it is left attached to the style, 30% to 50% useless weight is added to the saffron, lowering the quality, and at 3,000 € per kilo you don't want any fillers.

If a high-grade product is not needed, it certainly is easy to grow at home. Plant the corms in a sunny place or in a pot with average, well-drained soil anytime during spring or summer. If you want to try farming in a row, 10 to 15 cm deep with a 10 cm space between them. Mice and voles are attracted to the corms and rabbits enjoy the leaves and flowers, so protect your gold! Three fungal infections can be a problem: *Rhizoctonia crocorum* causes brown ulcers and damping-off, *Fusarium* attacks corms and creates an orange stripe, and Violet root-rot is a highly contagious disease (also called "mort du safran" or saffron's death). In spring, the foliage comes up but don't worry when they go

# The Rose of Saffron: The World's Most Expensive Spice

After 3500 years of cultivation, saffron is still produced in the same labour-intensive way today. The Autumn crocus, *Crocus sativus*, flowers in the autumn in many different countries, including Greece, India, Iran, Afghanistan and Spain. Iran dominates the global saffron market, producing 90% (230 tons) of the 250 tons exported, followed by Greece, Morocco, Kashmir, Spain and Italy. The most important thing for we home cooks to know is that saffron is often sold as a mixture of different qualities from different countries. Some companies buy in bulk, package it, and resell it quickly enough to be labelled as fresh but the consumer may not know that other factors go into assessing the value of that pricey package.

The date you see on saffron package is called the "Crop Year" and tells you the date it was harvested expressed as two years (1997/98). This means it was harvested in 1997 and exported in 1998 because when a farmer collects an autumn crop, the packager cannot ship until the following year.

Growing saffron at home is easy, right? Yes and no. The corms for *Crocus sativus* are easy to buy and the lovely purple flowers with those collectable stigmas appear in the autumn. They are perfectly nice to have, but, it isn't quite the same as the top-shelf product. The domesticated corm used in production today is a triploid (a sterile male) so it can only be multiplied by vegetative propagation unless crossed with another species. That is why plants are left in the ground up to four years before farmers divide and replant the fields. And, although it may seem that bulbs are widely available, the crocus exported are probably not the best genetic stock for saffron. Looking back to 600 BC, it seems the wild species *C. cartwrightianus* were originally selected by choosing those with excessive stigma lengths. Over the centuries, clones were spread throughout Europe but since they easily cross with other species the quality becomes variable.

summer dormant because the magic happens in autumn when a 10-15 day flowering window reveals the coveted strands of red gold. The best time to "trim" saffron is mid-morning on a sunny day when the flowers have just opened so the stigmas can be dried and packaged immediately. For home use, you can use scissors or tweezers for trimming but commercially the whole flower is collected. About 150 flowers go into one gram of dried saffron. Typically you will only see one flower on 60% of your plants but, as the plants mature, you can look forward to two flowers each.

As with other expensive items, like perfume or cigars, saffron should be handled with care to take full advantage of its qualities. Some of the most famous dishes owing their golden colour to saffron are Risotto Milanese, Paella Valenciana, St. Lucia Buns in Sweden, Moroccan stew, French bouillabaisse but it isn't limited to entrees. Think about Saudi Arabian coffee, fragrant with saffron and cardamom, along with creamy Indian saffron ice cream. With a bit of practice you too can add a perfumed golden glow to food like a professional.

The secret to using a high-quality saffron is to make a "tea" - the longer the saffron steeps, the stronger its flavour, aroma and colour plus, less is needed per recipe. This becomes very inventive because those valuable chemicals release in any hot liquid, acid (citrus), or alcohol. This is one of the reasons saffron cannot be duplicated or substituted. Try infusing in broth, milk, white wine, vodka, rosewater, orange-blossom water, fish stock, white vinegar or citrus juice. Leave about a 12-20 threads (in a dish serving 4-6) to extract for at least 30 minutes when they nearly double in size. No need to remove the threads from the liquid, they continue to release for up to 24 hours depending on their quality. You may have noticed leftovers containing saffron are more pungent? This is why.

The debates are in the details. To toast or not to toast? Properly dried, high-quality saffron does not need further

drying, suggests one source, however, it may be needed for lower-grade saffron to properly release aroma and colour. Others claim it favourably alters the quality but must be done delicately or the tiny threads may scorch. I say at these prices, don't even try it. To crush or not to crush? This is debated as some prefer allowing the thread to expand and release naturally from its perfectly dried condition while others own ornate saffron mortar and pestles elegantly customized for the job. What about powder? The answer is, consider the source. There is no such thing as cheap saffron so if the bottle isn't expensive it may contain those unknown fillers we already mentioned. You wouldn't buy a packet of flower seeds that was one-half chopped straw would you? Buying inferior saffron simply doubles the amount needed. On the other hand, a high-quality saffron powder can be a time-saver because the chemicals for aroma and flavour are partly released. Just know that storage away from moisture and light become even more critical. Extra care can be taken to wrap the packet in foil, use an airtight container, store in a cool dark place and your prized high-quality saffron can last for several years - lesser grades maybe six months. It won't "spoil" but it will lose potency over time.

*\*A tip is to not use any wood utensils because it easily absorbs the lovely qualities you have paid for and worked to develop.*

Saffron is like wine. In fact, some suggest storing your saffron in the wine cellar! And, much like wine, there are many variables affecting the saffron you buy such as soil, weather, genetics, picking, handling, drying, freshness, and moisture. The saffron of "Castilla y la Mancha" even created its own appellation, or DO, (Dominacione de Origen) to clearly brand "Manchegan" saffron. Indeed each growing region has such distinct characteristics that quality and labelling minimums are now governed by the ISO (International Organization for Standardization) in Switzerland.

The key to quality and price lies in the photospectrometry report. This laboratory analysis measures the three chemicals in the saffron stigma: crocin (colour), picrocrocin (flavour) and safranal (aroma). The first gives the most critical information, colouring strength, expressed in a range from 110-250+, which directly correlates to aroma and flavour. Always measured at the country of origin prior to sale on the international market, testing may be done again by the company blending multiple sources before packaging the final product for consumers - that is one reason why shopping for saffron can be so confusing.

So what colouring strength numbers should you be looking for? The ISO minimum for Category I saffron is 190 but you can buy saffron that is only 110, and a high quality saffron would be 250 (which should be clearly labelled

on the package). Can you imagine the difference this can make to your dish? It is like comparing cheap wine with fine champagne. The difference may be visible to a certain extent. Open a low-grade saffron and look for a mixture of red (stigmas), yellow (possibly stamen) and white threads (style) or you may see mysterious yellow threads (dyed filler), even bark! Some advertisers proudly claim a dark, musky aroma when in fact this is a sign of poor quality. Saffron should have a fresh scent! Stigmas are carefully separated before drying because moisture shortens the shelf-life, adds significantly to weight and inflates the cost. One company suggests moisture should only be 2% - never spongy.

Now, we know saffron quality (price) is clarified by the ISO number but there are branding names and categories by country on the labels as well.

#### **An example of saffron classification:**

- Grade 1A or All Red: 190 and above (but there are 2 types including the rare 250+)
- Grade 1B or Thread: Contains the red stigmas and are connected to the end of the style
- Grade 3 or Tied Bunch: Contains the red stigmas connected to the entire style (paying for the greatest amount of dead-weight, possibly to grind into low-quality saffron)

#### **An example of saffron branding by country (high to low grade):**

- Persian classification: Sargol, Dasteh, Pushali (red/orange), the lowest is Konge (yellow)
- Spanish classification: Coupe I, Superior I, Mancha II, Rio II, Standard III, Sierra IV
- Greece: Red saffron
- Indian Kashmiri: Mongra, Lacha, Zarda, Patti
- Morocco: Taliouine (town of origin)

Ask the same question before buying either powder or filament saffron, "What is the colouring strength of this saffron?" If the seller does not know what you are talking about, or tries to tell you it is unimportant, don't buy the saffron. Saffron is often a blend from several countries so remember there is only one international standard. If the container says "Mancha Selecto" but does not have a number for its colouring strength, ask for it.

#### **An example of clear labelling:**

- Hand Picked "Coupe" Spanish Saffron (Product of Spain)
- Certified 200+ Colour - ISO Category #1 Saffron
- USA Lab test results and Certificate of Origin will be included with your shipment.

Beware the recipe words "You might look for Mexican saffron, which is a little less expensive, or paella powder." Blends may contain nothing but artificial colours and salt! Discounted saffron and powders may contain old saffron (dull, brick colour), less than 50% crocus stigmas, dyed styles or stamen, or simply not be made from *Crocus sativus*. If the styles aren't even connected to the red threads, remember our botany lesson, it might be filler.



It should smell floral not like bark or chemicals. Saffron powder is often blended with turmeric or paprika.

American saffron is actually safflower (*Carthamus tinctorius*), as in safflower seed oil. A crop of antiquity much like crocus, this annual thistle produces a yellow dye but no flavour or aroma. It's packages may be labelled "bastard saffron." Mexican saffron is annatto, which are from the fruit of the Achiote tree (*Bixa orellana*) which gives food a yellow colour along with a peppery, nutty, or nutmeg flavour. It has a long, interesting history for colouring cheese in Europe! Indian saffron (*Curcuma longa*) is actually turmeric (haldo, haridara, curry powder) is often suggested as a saffron substitute but it is a much stronger flavour so use very little. It is very important to note that Meadow Saffron (*Colchicum autumnale*) is not a substitute. It is poisonous and should not be confused with saffron.

Saffron is used as a herb in both the Middle-Eastern and Southern-Asian, Unani medicine and the traditional Hindu medicine, Ayurveda. Globally, the list of treatable complaints spans quite a range for both men and women: asthma, cough, insomnia, cancer, atherosclerosis, gas, depression, Alzheimer's disease, fright, shock, baldness, heartburn, and menstrual cramps, premature ejaculation and infertility and as an aphrodisiac. There does not seem to be any agreement about how effective saffron products are but one source noted that doses of 12-20 grams can cause death so one should always consult a physician.

\*A simple "at-home" quality test: Add good saffron to water and it will slowly turn pale yellow and this will deepen over time. But, if the water instantly turns dark yellow(dyed), turns murky, or the threads fray make another selection.

by Sharee Solow