

SOAP, PERFUMERY AND COSMETICS

DRAFT

MONTHLY COLUMN

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Introduction

Welcome to this new column, which will concentrate on natural products and natural derivatives, especially their chemistry, action, legal status and use. For those of you that use aloe vera 1:1 at 0.1% in a hair shampoo and claim that it has benefits, this is probably not the place for you and please feel free to continue to talk with the fairies at the bottom of your garden. If, however, you are intrigued by the possible benefits of plant materials and want to use them as functional materials, then please continue reading.

What is in a name?

Most people I talk to are quite confused with ingredient labelling, especially when it comes to the labelling of botanicals. This is an explanation as to why we are using Linnean names for our INCI listing and not common names. Though we are all European, we are also an agglomeration of English, German, French, Dutch and Italian etc., all fiercely proud of our own language and not very tolerant of anyone else's. The British (who as you know, never have to learn a foreign language because everyone should know how to speak English) automatically assumed that all the plants would be declared in the CTFA format (which is a kind of English with 'f' for 'ph' in sulphur and 'or' for 'our' in words like colour).

So when we said that we were going to call *Achillea millefolium* by the name Yarrow, the Germans said that they wanted to call it Schafgarbenkraut, the Italians wanted the name Erba del soldato, and the French la Mille-feuille (not le millefeuille, which is that annoying pastry cake that squirts cream and disintegrates bits of pastry all over your best silk tie).

Things were in a bit of a mess, and one cannot help but admire the great intellect that came up with the brilliant idea of using a language that none of us spoke, namely Latin. It might well have been in Hindi or Mandarin, had the keyboards in Brussels not been ASCII in design. This was a master touch, because it meant that us Latin scholars (I did an "O" level in general classics) could gloat, and it also meant that with one Olympian stroke we had made absolutely certain that the poor old punter had no chance of knowing what was in her product.

Specification of the plant parts

Having sorted out the plants themselves, it seemed logical to see how we could confuse our American cousins still further, and we started to tackle the question of which parts of the plant were used to make the extract in the first place. This is quite an important issue, because specific effects are only achieved by specific parts of the plants that contain the relevant phytochemicals. I

do not know about you, but I prefer my wine made from the fruit of the vine and not the roots or the stem bark.

Again, the British proposed that we take the CTFA method of declaring leaf, flower, root, bark, seed etc., and again the European nations started to demand that it be in their national language. Latin was again cited as the panacea, but on this occasion all negotiations failed. Words like “*radix*”, “*folium*” and “*fructus*” were considered just a little bit to ‘way out’ for these definitions. So the decision was taken to do nothing, which was sad, because we never even considered Egyptian hieroglyphs.

Concentration of the extract

While everyone was engrossed in this discussion, a time bomb has been ticking away in the background. The Medicines Control Agency (MCA) has already issued MAL8 (Medical Advice Leaflet) which puts a clear definition between us and the Medicines Act of 1968. In this document appears the heading “Medicinal by function”

“A product falls within this limb of the definition of a medicinal product if it has the potential to interfere with, modify, or restore a function, of the body. If it contains any ingredient(s) with a significant pharmacological effect, this will be a strong indicator that the product is medicinal by function.

Many herbs have well-established pharmacological properties; for example, as bronchodilators (*Ephedra*); as respiratory stimulants (*Lobelia*); or as sedatives (*Valerian*). The presence in a product of medicinal herbs like these, (and there are many more), will be considered as strong evidence that it is intended for a medicinal purpose.”

Though there are many hundreds of herbs permitted in the European Inventory for cosmetic and toiletry use, there are a number of herbal materials which also are used in topical medicinal products which carry a pharmaceutical license or marketing authorisation. It will only be a matter of time before the ‘Borderline Products’ division of the MCA start to examine those products which have high levels of medicinal plant material. The only way that they can suspect a product is from the ingredient label. However, the labelling takes no account of the concentration of the plant material used, indeed, I have found many examples where the manufacturer has not the remotest idea of how much plant material that he is adding to his product.

Ignorance will be far from bliss, if this powerful and highly respected organisation get their claws into you. So my thought for the month is this - if you do not want to pack the stripy pyjamas for a quiet and secluded holiday at the expense of Her Majesty’s government, then it would pay you to look carefully at those products with skin benefits (what the MCA would call physiological activity) that contain high levels of medicinal plants.

Next month: Ethnobotany, a wonderful way to steal some new ideas.

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Picture of Yarrow (*Achillea millefolium*) to be included.